

Create a Cloud Report with Jaspersoft Studio



Version 2.0, November 28, 2022

Author(s) Bernhard Weiersmüller

Contact bernhard.weiersmueller@coresystems.ch

> Villa im Park, Dorfstrasse 69 5210 Windisch, Switzerland T +41 56 500 22 22 www.coresystems.net

Coresystems AG

Changelog

Version	Date	Editor	Comments
1.0	2017/08/23	Bernhard Weiersmüller	Initial Version
1.1	2018/03/28	Bernhard Weiersmüller	Added Report Designer Section
1.2	2018/07/16	Bernhard Weiersmüller	Added description for Mobile Reports
1.3	2018/08/10	Bernhard Weiersmüller	Added Error Handling
1.4	2018/08/31	Bernhard Weiersmüller	Added Parameter to SQL Query
1.5	2018/11/28	Bernhard Weiersmüller	Changed query to Activity Code in Chapter 4.2
1.6	2022/08/29	Bernhard Weiersmüller	Changed Report Designer URL to use https
2.0	2022/11/22	Bernhard Weiersmüller	Replaced Coresystems logos, improved Installa- tion chapter

Contents

	Cha	ngelog	1
1	Prei	requisites	2
2	Inst	allation and configuration of JasperSoft Studio	3
	2.1	Goal	3
	2.2	Step by Step	3
3	Edit	and preview your Report Data	••7
	3.1	Goal	••7
	3.2	Step by Step	••7
	3.3	How to check for compilation errors	12
4	Add	parameters, calculations and a subreport	13
	4.1	Goal	13
	4.2	Step by Step	14

1 Prerequisites

- SAP FSM Cloud Account
- Basic understanding of SQL

2 Installation and configuration of JasperSoft Studio

2.1 Goal



00

In this section you will learn

- How to download and install JasperSoft Studio
- How to add a Data Adapter
- How to create a new project
- How to add a new empty Jasper report

A Data Adapter is a connection to a cloud database. You can have multiple data adapters.

A **project** contains all your configurations and settings regarding your reports. You can have multiple reports inside one project.

2.2 Step by Step

	Scenario	Steps
1	Download and in- stall Jas- perSoft Studio	 Download JasperSoft Studio from here: https://sourceforge.net/projects/jasperstudio/ Install JasperSoft on your PC Startup Jaspersoft Studio, then select "Help > Install New Software" Select a site Vork with: >per or select a site Vork with: >per or select a site Version Select All Version Version Version Version Version <a "name"="" beport="" designer"="" field<="" href="m</td></tr><tr><th></th><th></th><th>Details Cancel</th></tr><tr><th></th><th></th><th>Show only the latest versions of available software Show only the latest versions of available software Group items by category Show only software applicable to target environment Contact all update sites during install to find required software</th></tr><tr><th></th><th></th><th>(2) < Back Next > Finish Cancel 1. Click Add 2. Add " in="" th="" the="">

- 3. Add https://reportdesigner.coresuite.com/updates/ in the "Location" field
- 4. Click "Add" then Read and accept the license agreements, then click Finish. If you get a security warning saying that the authenticity or validity of the software can't be established, click OK. Restart JasperSoft.



- 1. Enter a name for your Data Adapter.
- 2. Enter your FSM Cloud Account Name here
- 3. Enter your FSM Cloud User Name here
- 4. Enter your FSM Cloud User Password here
- 5. Click Login. If successful it will show "Company list retrieved"
- 6. Here you can select the Company you want to connect with
- 7. Click "Test" to test the connection
- 8. Click "Finish"

3 Cre	eate a	🧏 TIBCO Jaspersoft® Studio		
nev	<i>w</i> pro-	File Edit View Navigate	Project Window Help	
jec	t and		Open Project	5>
an	empty	Repository Explorer 🔀 🎚	Close Project	
nev	w re-		Build All	Ctrl+B
por	rt	V Data Adapters	Build Project	×+3
		One Empty Record	Build Working Set	>
		Sample DB	Clean	
		TEST	Build Automatically	
		Servers	Upload Report Template to SAP FSM Cloud	
			Download Report Template from SAP FSM Cloud	
			Publish the file on JasperReports Server	Ctrl+Alt+U
			Properties	
			"Thema :" + \$i	F{ac.subject}
		Repository 23 Project Expl.		
		Servers	Select a wizard	<u> </u>
			Create a JasperReports project	a
			Wizards:	a ^{res}
			type filter text	
			CVS Projects from CVS PasperReports Studio JasperReports Samples Degrava Plug-in Development SolvN	ाव पार्ह }F(
			Show All Wizards.	
		E Outline ∷ II ✓ Feport ✓ Styles ✓ Parameters	? < Back Net > 3 Finish	Cancel
		1 Click "FilesNi	ew Project"	
		2 Choose "last	perPenorts Project"	
		2. Click Novt		

🗞 New Report Wizard			_		×
Report Templates					
Please select a report from a template		Ι			
			Zoom:		
Categories All Print Ready Reports Web Interactive Reports Format A4 Format Landscape Report Books SAP FSM Reports T					
?	< Back	Next >	Finish	Cance	I

- 1. Choose "File>New JasperReport"
- 2. Choose "SAP FSM Reports"
- 3. Choose the blank FSM Report. This is a predefined template and contains already most things you will need.
- 4. Click Next

🗞 New Report Wizard					×
Report file					
Please select your reports file name with .jrxml extension.					
Enter or select the p <u>are</u> nt folder:					
My first project				 	
> 😂 Cloud Report Training > 😂 My first project					
File name: report.jrxml					
-					
?	< Back	Next > 3	Finish	Cance	I

- 1. Select your newly created project
- 2. Do NOT change the File name (report.jrxml) as this will be used by the standard report template. This will be your main report which can then include subreports if needed.
- 3. Click Next



3 Edit and preview your Report Data

3.1 Goal



In this section you will learn:

- How to edit the Report title
- How to preview the compiled report
- How to check compilation errors



Your report will be viewable in different places:

In the mobile FSM app and in FSM under "Analytics & Reporting"

A **preview** of your report will show you how the report will look like.

3.2 Step by Step

Sce- Steps nario



2

- 1. Click on the Tab called "Project Explorer". This will then show all your projects. Projects are collections of your work and reports.
- 2. Open your project and double click on report.jrxml to open the main report.
- 3. Your report then opens up in the middle section of the screen. There you will edit your report details from now.



- 1. Double click on the "Title" Textfield in your report
- 2. This will open the "Expression Editor". This editor will be used for editing your report fields. Here you will be able to use expressions, calculations and resources.
- 3. Change the text called "Title" to "Activity: ". Click Finish

Create a														010	-		e (Q 1	20%	~	🛓 S	etting	s 👻	C	Basic	Eleme	nts											
dataset		• 2 • • • • 1 • •	3 .	• • • •		4		· · 5		1 + +	• • 6 •		1	· · 7 ·	6		· 8 ·		1.000	.9	• • 1		10		📫 No	te												
ualasel	-			-		-	-	-		-	-	-		_	-		۰.								Í Te	t Field												
with																									iabei Sta	tic Te	t											
CoreSQ	re	🕺 Dataset a	and Qu	ery Dia	alog																															Ш	×	£
L lan-	ystems	🗏 Bernha	ards Ad	apter	1																																	
guage		Query Java	Bean																																	_		
		Language	CoreSC	QL 🛛	3				\sim																										5	Rea	d Fields	;
					-																								^	>		Activit	у				^	Ī
		SELECT a	ac FROM	M Acti	vity ac	Δ																						\sim				Activity	yCoa yCon	e nposed	dCod	e		
						-																								>		Activit	yFeed	lback				1
																														2		Activity	ySub	Type				Ľ
																														5		Activit	уТорі	ic				
																														>		Addres	55		6			1
																														>	Đ.	Alert			-			
																																Approv Attach	val ment					
																														Ś		Attribu	ıte					1
																														>		Attribu	iteVal	ue				ł
		Versions						_	_																			_		>		Batch						1
		Activity	r			18			7																		^ ·	×				Blanke	duani tOrde	iity er				ł
	yiin\$44541,14uibd	Service	Call			21		\sim	-																		~ `	×		Ś		Branch	1					
		During	Dester	-		20																								>		Busine	ssPar	tner				
		busines	searche																								^ `	· X		2		Busine	ssPar ccDar	tnerAc tnerGr	ddres	ŝ	~	
		Addrose	-			11 19		~											• •								A	4 1			121	busine	.33F 01	uncroi	oup			-
		Refresh Pr	review [Data	▼ Ca	ncel da	ata pre	view	First	10 re	cords	`	/																							Ready (10 read))
		a a a	a a	a a	a a	a	a a	a	a	a a	a.	. a	a	a a	a	. a	a	a	a a	a	a	a	a a.	a	a	a a	a.	. a	a	a a	a	a a	. a	a.,	a	a a	a ^	
		9.	В.	[f.,	3	Т.	3.	F.	s. 1	и 1.	Ε.		C	. f.	1.	5.		{.		f.,	0				Į,		м	0	1		I.,		0	0	Α.		
		9.	В.	0		4.	3. S.		м	M	vi 0.	D.		8	. f.	1.		{	{.		f.,	0			н	Į.	•	М	D.	H	н	I.,				Α.		
		5.	0.	0	t.,	1.	F. T.	5.	S.	F. N	M F	C.		0), f.	1.	6.		{.	•	f.,	0	-			1	•	S.	C.	F	R.				-	Α.		
	5			0		9	F.	1.	S.	5. S). D.	P.), f.	1.	2.				t	U n	E.	. 9.		- [S.	D.		5. E	- I			-	A.		
		9.	0.	n	f.	1	г. Е. Т	3	s.	M N	л. D. И	E F		4	- T. - F	1	2.		1		f.	n	F.	. 9.		r L		M	0.		E. H	1		0	0	ч. А.		
		9.	0.	0	f.,	1.	F. F.	1.	M	MN	vi –	Ε.		7	. f.	1.	1.		{.		f.,	0				I.		M	0		н	I		0	0	A.	~	,
		Fields Parar	meters	Sortin	ng Filte	r Expre	ession	Data	previe	w																												-
		0								8																							-	NV		6.		
		Ø								-																							C	ж		Car	icel	1
	Create a dataset with CoreSQ L lan- guage	Create a dataset with CoreSQ L lan- guage	Create a dataset with CoreSQ L lan- guage SELECT S S S S S S S S S S S S S S S S S S	Create a dataset with CoreSQ L lan- guage SELECT ac FROM SELECT A	Create a dataset with CoreSQ L lan- guage	Create a dataset with CoreSQ L Ian- guage SELECT ac FROM Activity ac SELECT ac FROM Activity ac Versions Activity ServiceCall BusinessPartner Refresh Preview Data V S. 0, 0 S. 0, 0 Fields Parameters Sorting Filte	Create a dataset with CoreSQ L lan- guage Benhards Adapter Query Java Bean Language CoreSQL 3 SELECT ac FROM Activity ac Activity BesinessPartner 20 Katacee Refresh Preview Data Cancel d a. a. a. a. a. a. a. a. a. a. S. 0. 11 t. 1. S. 0. 11 t. 1.	Create a dataset with CoreSQ L lan- guage Uage Dataset and Query Dialog E Benhards Adapter Query Java Bean Language CoreSQL 3 SELECT at FROM Activity at SELECT at FROM Activity at ServiceCall 21 BusinessPartner 20 Adduce 18 Refresh Preview Data Cancel data pre a. a. a. a. a. a. a. a. a. 9. B. [. f. 3 3 T. 9. 0. 0 f. 1 F. T. 9. 0 f. 1 F. T. F. T.	Create a dataset with CoreSQ L lan- guage Bernhards Adapter Unguage CoreSQL SELECT ac FROM Activity ac Activity BusinessPartner 9 Busines	Create a dataset with CoreSQ L lan- guage SELECT ac FROM Activity ac Activity ac SELECT ac FROM Activity ac Versions Activity 18 ServiceCall 21 ServiceCall 21 ServiceCall 21 ServiceCall 21 Addace Refresh Preview Data Cancel data preview First a. a. a. S S S S S S S S S S S S S S S S S S S	Create a dataset with CoreSQ L lan- guage Dataset and Query Dialog E Benhards Adapter Query Java Bean Language CoreSQL 3 SELECT ac FROM Activity ac SELECT ac FROM Activity ac Activity 18 ServiceCall 21 BusinessPartner 20 Adducer 18 Refresh Preview Data CoreC data preview First 10 re a.d. a.	Create a dataset with CoreSQ L lan- guage Dataset and Query Dialog L lan- guage Detaset and Query Dialog Detaset and Query Detaset and Query Det	Create a dataset with CoreSQ L lan- guage Urey Java Bean Language CoreSQL 3 SELECT ac FROM Activity ac Activity 18 ServiceCall 21 ServiceCall 21 Refresh Preview Data Concerning First 10 records to a data at a at a at a at a at a at a	Create a dataset with CoreSQ L lan- guage SELECT ac FROM Activity ac Activity 18 SELECT ac FROM Activity ac Activity 18 ServiceCall 21 BusinessPartner 20 Autour 19 20 ServiceCall 21 BusinessPartner 10 Autour 19 20 Referent Preview Data Cancel data preview First 10 records 1 a. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4.	Create a dataset with CoreSQ L lan- guage	Create a dataset with CoreSQ L lan- guage Dataset and Query Dialog E Benhards Adapter Query Java Bean Language CoreSQL 3 SELECT ac FROM Activity ac Activity 18 ServiceCall 21 BusinessPartner 20 Adducer 18 Refresh Preview Data CoreCol State Preview First 10 records s S S S S S S S S S S S S	Create a dataset with CoreSQ L lan- guage Versions Activity Versions Activity Bernhards Adapter Versions Activity Bernhards Adapter Versions Activity Bernhards Adapter Versions Activity BusinessPartner BusinessPartne	Create a dataset with CoreSQ L lan- guage	Create a dataset with CoreSQ L lan- guage	Create a dataset with CoreSQ L lan- guage Werven.Luke Refeesh Preview Data × Cancel data preview states	Create a dataset with CoreSQ Llan- guage	Create a dataset with CoreSQ Lan- guage SELECT ac FROM Activity ac Activity = 4 S S S S S S S S S S S S S S S S S S S	Create a dataset with CoreSQ L lan- guage Versions Effects Preview Data * CoreCod * Benhards Adapter * 2 Query Java Bean Language CoreSQL 3 SEECT ac FROM Activity ac 4 ServiceCall 21 × BuineesPartner 20 × Refersh Preview Data * Concel data prover First To records * * 8 b 1 c f. 1 a b a b a b a b a b a b a b a b a b a	Create a dataset with CoreSQ Liang Users and the set of	Create a dataset with CoreSQ Lan- guage with CoreSQ Lan- guage File Field	Create a dataset with CoreSQ Lan- guage	Create a dataset with CoreSQ Lan- guage Weines Stell Freih Preview Dat * Cancel data preview Stell Refresh Preview Dat * Cancel data preview Refresh Preview	Create a dataset with CoreSQ Large Parameter Sorting 100 Parameter	Create a dataset with CoreSQ Laar grant due y Balog grant due y Ba	Create a dataset with CoreSQ Language Create and Query Dates a	Create a dataset with Correson Language CreSoL 3 We set the set of the set	Create a dataste with CoreSQL Lan- guage Setter and Cuery Dataste and Cuery Data	Create a dataste with CoreSQO Lianguage	Create a dataste with Corresco	Create a dataset with Coresco Lianguage Credit 3	Create a dataset with CorresCo Lianguage Cred& 3 SEECT SE FROM Activity SE Versions SEECT SE FROM Activity SE SEECT SE FROM Activity SE SECT SE SECT SE FROM ACTIVITY SE SECT SE FROM ACTIVITY SE SECT SECT SE SECT SE SECT SE SECT SECT SE SECT SECT SECT SE SECT SECT SECT SECT SECT SECT SECT SECT	Create a dataset with Coresco Lianguage Create a to the	Create a cataset in the second and t

- 1. Click on the Symbol to open the "Dataset and Query Dialog"
- 2. To be able to preview your empty report, you need to add a dataset. This is the data you select from the database using a SQL similar query. Make sure you have selected the correct data adapater.
- 3. Choose "CoreSQL" as your query language.
- 4. Enter a first query into the box: SELECT ac from Activity ac. This will select all data from the table called "Activity". The syntax is SQL like with some differences. For example you will always need to specify table name aliases. Also the Asterisk (*) is not supported. This query will select all rows from the table Activity. Table names and Fields are case sensitive! Find the syntax in the SAP Help Portal (Search for Query API).
- 5. Click on "Read Fields". This will query the database with your query.
- 6. Here you can see all tables of your database
- 7. This shows the versions of your tables. If SAP releases a new version of a table, then the version number is increased.
- 8. Click "Refresh Preview Data" to show the data
- 9. Data preview shows all the columns returned by your query.

As this is not ideal for preview it is advised that you always create and test your query in the Admin part of FSM first as described in the following steps.

Admin					
Account	Companies	5			
Companies	Q Search	1			
Password Policy	🗆 id	↑ Name	Created	Connector	Last Meta
Subscriptions	91366	Coresystems (Coresystems 2	2017-08-03 14:19:24 (UTC)	COR_CON_NONE (n/a)	
User Groups		-			< 1
Users					_

 Login to FSM/ Select your co 	Administration Administration	n and then click on Com	panies			
Admin					Coresystems +	core-webe-sa + CN +
+	Query API Cloud Query API en	dpoint for data retrieval. Check documentatio	n for more deta	ils.		
Company						
Settings	SELECT ac from Ac	tivity ac				
Business Rules						.a
Custom Objects				¢ Crea	ate Bookmark Bookmarks Histo	ory Execute (F5)
Translations						
Query API	Result #0					
Messages	Export -		4			
Screen Configurations	ac.activityTemplate	ac.address	ac.branches	ac.businessPartner	ac.businessProcessStepAssignments	ac.businessProcessSte
	null	98E49100239B4E61A7268611914E42D4	null	BF0C8E0591B14059BDFFB9E81AA1ABAF	null	false
	null	9A6BC596B76C4431B660F5410BA88CE6	null	BF0C8E0591B14059BDFFB9E81AA1ABAF	0	null
	null	54F3509B95F64669B60C6C8586271D2B	null	0113FEDD7C9D4C4085567BDBBF547EF1	0	null

- 1. Click on Query API
- 2. Enter your query in the CoreSQL syntax
- 3. Execute the query by clicking on Execute or pressing F5 on the keyboard
- 4. See the resulting dataset here in the table.

4 Create		
Activity		
Report		\$R new \$R \$V " \$V
with no	CORO	
filtering	CUIS Paperive	eder
	systems	
	"Activity Code: " + \$F{ac.code}	
	"Activity Subject: " + \$F{ac.subject}	
	"Activity Status: " + \$F{ac.status}	
	Detail	1
	Band: Detail 1 [200px]	
	(fielditativel@eb%openpanjahjahfat1, litulhulhahpeohe")'+'''+ fielditativa("@a/@amplanfahjab	bl, bb) ndstreed%;#Addressf)eHdValbe("Tozhtyzdog(nCoump&nytht(o"zipOpdol))

- 1. Add a text field to the report by dragging an empty one from the "Basic Elements" section to the Detail Band of your report. Edit the content and add "Activity Code: " + \$F{ac.code}
- 2. Add another text field with "Activity Subject: " + \$F{ac.subject}
- 3. Add another text field with "Activity Status: " + \$F{ac.status}

📓 *report.jrxml 💦 📓 report	_Timeefforts.jrxml 🛛 📓 report_1.jrxml	🗼 *report.jrxml	属 report_1.jrxml	属 *report_2.jrxml 🛛	
📕 Bernhards Adapter 🔻	▶ ▼ Java ▼ 🌾 🗭 Page 5 of 19 c	\$ <} € € 10		≥ 🔒 🔹	
	COTE systems		Date 23/08/17	Page 5 / 19	
	Activity Code: 5 Activity Subject: Machine is broken Activity Status: CLOSED				
•	Activity Code: 14 Activity Subject: Configuration Activity Status: DRAFT				
	Activity Code: 15 Activity Subject: Customer acceptance				
	Activity Status: DRAFT				
Design Source Preview				I	
📓 Report State 🔮					
Console Errors (0) Statistics					
Compilation Time	0.108 sec				

- 1. To preview your report click on Preview tab
- 2. Use the controls above the report to wander trough your report pages. Without filtering this report will show many pages with many activities.
- 3. Details of Activity with Code 5 are shown here
- 4. Details of Activity with Code 14 are shown in the next paragraph



3.3 How to check for compilation errors

- 1. Click on "Preview" to compile your report.
- 2. Double click on the error message. This will open the Expression Editor of the element which caused this error message
- 3. In this example the element (the Title of the report) does not have speech marks which produced the error
- 4. If you use the Compile dialogue, when double clicking on the error message, nothing will happen! So make sure to always use the "Preview" Tab instead!

4 Add parameters, calculations and a subreport

4.1 Goal

In this section you will learn:

- How to use Parameters in your report
- How to add a subreport to your main report
- How to use variables
- How to create calculated fields
- How to use functions (like concatenate)



Subreports are reports inside the main report. They are used to group data in your report.

Parameters are used to only select the dataset you need.

They can be used in two different ways:

- Use a parameter to view a report for a certain value for testing purposes (instead of viewing everything). This is done by putting in a value each time you run your report or by putting in a default value. These parameters are referenced by \$P{parametername} in your query. They are specified in the "Parameters" Section of your report. Also when the report is running on the mobile or online this parameter is used to handover a key value for the report generation (i.e. the activity code).
- Use a subreport parameter to handover a certain value to your subreport. The subreport will then use this value in its query to narrow down the data to be displayed there. A subreport parameter is configured when you go to the subreport properties and click "Edit Parameters".

Variables are used to display calculated values. They can be referenced by \$V{variablename}.

Fields are used in queries and contain a certain value from a table. They can be referenced in a report by \$F{tablealias.tablefield}.

4.2 Step by Step

nario						
Add	A JRE System Library [JavaSE-1.6] A JasperReports Library	-				Text Field
a pa-	 > Maspersoft Server Library logo.png 			¢D new		ikkei Static Text
ram-	<pre>report_1.jnml report.jnml report.jnml report.jnml</pre>	core	Demotilee den	\$R new	SR 5V 5V	📙 Break 🛄 Rectangle
eter	report_2.jnxml	systems	PACEIVIEY			Ellipse Composite Elements
to	 translations.properties Cloud Report Training 					# Page Number Σ Total Pages
your	> 🚰 test	- "Activity Subject: " + \$F{ac.subject}				Current Date
re-		"Activity Status: " + \$F{ac.status}				% Percentage ## Page X of Y
port			Detail 1			Properties 🛛 🔒 Problems
		Band: Detail 1 [200px]				Parameter: 6 ty Code
	Cutline	▲ :				Name* Activity Code
	> Styles Parameters					Title 4
	REPORT_CONTENT	(fieldMalVel0@f%Dpanginfonfd1, 10ulhuthatplebhe*") + **+	fieldváki.Vajttavýtýpanganfythfiði, biujintákréenhaikAt	ődressfjeiki⊽aibe(nGziolyziop(nGz	Yonip&nytifi(o'zi@©pdell)	Description
	ASPER_REPORT					Auto Set
	REPORT_MAX_COUNT	1				Default Value Options
	REPORT_LOCALE	C Derine Cource Deminu			>	Remember v
	REPORT_TIME_ZONE REPORT_FORMAT_FACTORY REPORT_CLASS_LOADER	Report State 🙁			- c	Required
	REPORT_URL_HANDLER_FACTORY	Console Errors (0) Statistics				
	REPORT_TEMPLATES	Filling Time 1.222 sec				
	EITER	Export Time 0 sec				
	Activity Code 3	Processed Records Count - records				
	Make sure, th 2. Right click or	tom Activity ac where a hat you have selected yo	ac.code = \$P{A our main report i line tab and click	ctivity Coo n your proj c "Create p	de}" ect. arameter"	
	 Make sure, the Make sure, the Make sure, the Make sure, the Arrow parameter of the Arrow parameter of the Make sure, the Make sure, the Make sure, the Arrow Make sure,	om Activity ac where a hat you have selected you parameters in the Out heter will be created. hand side of JasperSoft e "Text" tab Object.	ac.code = \$P{A our main report i line tab and click Studio you can o	ctivity Coo n your proj t "Create p edit your n	de}" ect. arameter" ew parame	eter. Name it "Activity
	 Make sure, the Make sure, t	Tom Activity ac where a hat you have selected you n Parameters in the Out neter will be created. hand side of JasperSoft e "Text" tab Object.	ac.code = \$P{A our main report i line tab and click Studio you can	ctivity Coo n your proj c "Create p edit your n	le}" lect. arameter" ew param	eter. Name it "Activity
	 Select ac fr Make sure, th Right click or A new param On the right h Code". Choose Type Click on the t 	Activity ac where a hat you have selected you have selected. An and side of JasperSoft at "Text" tab Object.	ac.code = \$P{A our main report i line tab and click Studio you can	ctivity Coo n your proj t "Create p edit your n	de}" ject. arameter" ew param	eter. Name it "Activity
	 Make sure, th Right click or A new param On the right h Code". Choose Type Click on the t Properties & Parameter: 	 com Activity ac where a hat you have selected you have selected you have selected you have reated. hand side of JasperSoft e "Text" tab Object. Problems Activity Code 	ac.code = \$P{A our main report i line tab and click Studio you can o	ctivity Coo n your proj c "Create p edit your n	le}" arameter" ew param	eter. Name it "Activity T C C C
	 Make sure, th Right click or A new param On the right h Code". Choose Type Click on the t Properties & Parameter: 	om Activity ac where a hat you have selected you have selected you here reated. a Parameters in the Out heter will be created. hand side of JasperSoft e "Text" tab Object. Problems Activity Code Object	ac.code = \$P{A our main report i line tab and click Studio you can	ctivity Coo n your proj c "Create p edit your n	de}" ject. arameter" ew param	eter. Name it "Activity
	 Make sure, th Right click or A new param On the right h Code". Choose Type Click on the t Properties & Parameter: Appearance Name Activity Code 	com Activity ac where a hat you have selected you have selected you have selected you have selected you have selected. and side of JasperSoft e "Text" tab Object. Problems Activity Code Image: Object Image: Object	ac.code = \$P{A our main report i line tab and click Studio you can	ctivity Coo n your proj c "Create p edit your n	de}" ject. arameter" ew param	eter. Name it "Activity
	Make sure, th 2. Right click or 3. A new param 4. On the right h Code". 5. Choose Type 6. Click on the t Properties & Parameter: Name Activity Coc Class java.lang.St	com Activity ac where a shat you have selected you have selected you have selected you have selected you have selected. and side of JasperSoft e "Text" tab Object. Problems Activity Code Image: Object and the object of the object	ac.code = \$P{A our main report i line tab and click Studio you can	ctivity Coo n your proj c "Create p edit your n	de}" ect. arameter" ew param	eter. Name it "Activity
	Make sure, th 2. Right click or 3. A new param 4. On the right h Code". 5. Choose Type 6. Click on the t Properties & Parameter: Name Activity Coc Class java.lang.St Description	rom Activity ac where a shat you have selected you have selected you have selected you have selected you have selected. In the Out heter will be created. In the Advanced a Text" tab Object. Problems Activity Code Object Advanced	ac.code = \$P{A(our main report i line tab and click Studio you can (ctivity Coo n your proj c "Create p edit your n	de}" ject. arameter" ew param	eter. Name it "Activity
	Make sure, th 2. Right click or 3. A new param 4. On the right h Code". 5. Choose Type 6. Click on the t Properties & Parameter: Mame Activity Cod Class java.lang.St Description Is For Prompting	in a constraint of the constraint o	ac.code = \$P{A(our main report i line tab and click Studio you can o	ctivity Coo n your proj c "Create p edit your n	de}" ject. arameter" ew parame	eter. Name it "Activity
	 Make sure, th Right click or A new param On the right h Code". Choose Type Click on the t Properties & Parameter: Parameter: Mame Activity Code Class java.lang.St Description Is For Prompting Default Value Express 	com Activity ac where a shat you have selected you have selected you have selected you have selected you have selected. a Parameters in the Out heter will be created. hand side of JasperSoft e "Text" tab Object. Problems Activity Code Image: Object Image: Advanced de Image: Advanced de Image: Advanced ission Image: Time and the selected sele	ac.code = \$P{A our main report i line tab and click Studio you can [ctivity Coo n your proj c "Create p edit your n	de}" ect. arameter" ew parameter	eter. Name it "Activity
	Make sure, th 2. Right click or 3. A new param 4. On the right h Code". 5. Choose Type 6. Click on the t Properties & Parameter: Mame Activity Cod Class java.lang.St Description S Is For Prompting Default Value Express Evaluation Time	rom Activity ac where a hat you have selected you have selected yo	ac.code = \$P{A(our main report i line tab and click Studio you can o	ctivity Coo n your proj c "Create p edit your n	de}" ect. arameter" ew parameter	eter. Name it "Activity

- Here you can edit the parameter name. We set it to Activity Code in this example.
 This is the Parameter class. For certain things like Date calculations it is useful to choose the correct Class type.

3. Here we can add a default value. This is useful for testing purposes. Everytime you compile your report it would use this default value for the parameter. When you preview your report you would have to enter a value every time manually if you leave this Default Value Expression empty (see below screenshot). Make sure that you set the value in double quotes.

📳 Bernhards Adapter 💌 🕨 💌	Java 🔻 🌾 🖓 Page 1 of	
Input Parameters Activity Code 1 2		The report requires that you specify the value for some parameters before running it.
Design Source Preview	et	
Report State 🕱		
Console Errors (0) Statistics		

- 1. Click on the Preview tab
- 2. You will see the default value already entered for the Activity Code.
- 3. Press the green arrow to view your report

🕴 ichou Teilinii 🔍 🐨 ichou Plinii		
Bernhards Adapter ▼ ▶ ▼ Java ▼ Page 1 of 1 ⇒ ⇒ Q 100% ∨ □ D E	4	
Bernhards Adapter < Adapter < Page 1 of 1 Out: 23/08/17 Page 1 / 1 Corree Systems Activity Activity Subject: Help the customer with Activity Status: OPEN		
esign Source Preview Report State console Errors (0) Statistics Compilation Time 0.019 sec	·	

- 1. Your report should look similar to the one shown here. Only one activity is shown because we filtered the data using the parameter Activity Code.
- 2. Only one page can be seen now because of the parameter!

epor	A JasperReports Library					I Text Field iden Static Text
	Jogo.png			SR new	SR SV " SV	💼 Image
	report_1.jrxml	core	Roma Handor			Heak Break
	report_2.jasper	systems	PEACEIVIEY			III. Rectangle
	report.jrxml					Elliose
	P translations.properties					# Page Number
	Cloud Report Training					Σ Total Pages
	JRE System Library [JavaSE-1.6] A JasperReports Library					🛅 Current Date
	Jaspersoft Server Library					🛅 Time
	logo.png					% Percentage
	report_1.jrxml		D.1.14			w/m Page X of Y
	report_I meetforts.jasper m		Detail I			Properties 🗱 👔 Problems
	ni report.jasper					Parameter: Pa 6 ter1
	utline 🛿 🚦 💕 🗖 🗄 🗄					🚥 Appearance 🐖 Object 🔄 Advanced
	neport A					Name* objectID
	Parameters					Title
						Description
	LASPER REPORTS CONTEXT	(fi ol Okladiva (obistrib pargain jór) (41, 11, 11, in ditur placin e' 7 +	+ fieldutidate/siz/ripangiar(ptotb1, bis/intatraet/ai4At/aire	ssT(okiValbe) %adch¢adogi) 62	triblanginKo"zi@Eodelti	
	JASPER_REPORT					lype* Object Id 5 ~
	EPORT_CONNECTION					Auto Set
	REPORT_DATA_SOURCE					Default Value
	REPORT_SCRIPTLET					♥ Options
		n Source Preview				> Remember V
	REPORT_TIME_ZONE					required V
	REPORT_CLASS_LOADER	ala Europa Statistica				
	REPORT_URL_HANDLER_FACTORY Const	ole Errors Statistics				
	SORT_FIELDS					
	REPORT_VIRTUALIZER					
	IN IS IGNORE PARTION					
	De objectio					

- 3. Click on your new parameter
- 4. Edit the name of the new parameter and call it "objectID"
- 5. Choose the Type to be "ObjectId"
- 6. Click on the "Object" tab which will show the next screen

Properties 🔀 🛐 Problems		~						
Parameter: objectID								
Come Appearance The Object Advanced								
Name objectID								
Class java.lang.String 2		~						
Description								
✓ Is For Prompting								
Default Value Expression "199D4023BB4B4EBD89EFA4738D54CA3B"		0						
Evaluation Time <null> ~</null>								

- 1. Here you can edit the parameter name.
- 2. This is the parameter class. For certain things like date calculations it is useful to choose the corresponding class.
- 3. Here we might add a default value (in double quotes!) for the objectID. This is useful for testing your report. When you first preview your report you will have to enter a value before you can proceed if you leave the default value empty. Do not forget to REMOVE the default value when you are finished with your report. Otherwise your report will not work correctly in the mobile app or in the cloud and always show the same data.

How do you know what value to enter as the objectID? See next screenshots for an in depth explanation!

Query Cloud C	Query API Cloud Query API endpoint for data retrieval. Check documentation for more details.							
SELECT INNER INNER ORDER	SELECT a lid, a code, sc. subject, sc businessPartner, bp. id. p. name FROM Activity a INNER JOIN BusinessPartner bp on sc. businessPartner - bp. id ORDER BY bp. name							
				• 🗖	reate Bookmark Bookmarks History Execute (F5)			
Resul	t #0							
Ехро	rt-							
a.code	a.id	bp.id	bp.name	sc.businessPartner	sc.subject			
37	500CD8B1AFF4470CAC1EE48639CB206F	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Aargauer Zeitung	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Printer muss repariert werden, sofort			
56	A062429843FC4046B9C80F955A800923	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Aargauer Zeitung	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Printer schon wieder defekt			
35	9308B8AD89F14173973D8A50424B1C4E	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Aargauer Zeitung	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Omnfire Defekt			
34	8038E43A134E45B7BF0E99288FA8ED19	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Aargauer Zeitung	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Repair Printer			
33	2CF86F7FC4444999B2062F6159F062FB	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Aargauer Zeitung	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Repair Printer			
43	199D4023BB4B4EBD89EFA4738D54CA3B	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Aargauer Zeitung	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Anderer Printer defekt			
36	CA8E546B69B44C0A96B42EB4DF32DA68	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Aargauer Zeitung	0A497CFD7D7E4D86B9BAC37D0B7EEEBD	Repair Printer			

 Open the Query API in FSM>Administration>Company>Query API and enter the following query: SELECT a.id, a.code, sc.subject,sc.businessPartner,bp.id,bp.name FROM Activity a INNER JOIN ServiceCall sc ON a.object = sc.id INNER JOIN BusinessPartner bp ON sc.businessPartner = bp.id ORDER BY bp.name

- 2. Execute the query and look at the results
- 3. This is the BusinessPartner ID in the BusinessPartner table
- 4. This is the BusinessPartner ID in the ServiceCall table. You can see how these IDs are linked between both tables
- 5. Choose an activity ID value from the list and save it for later when you need to provide an activityID to preview your report. This value is then needed to link to the query in the subreport. You can read <u>here</u> to see where you need to provide this value.

Main Report			🗎 🕶 🗄		% 🗸 💂 Setting:	s 👻 🛄 Basi	ic Elements
0	3 1 4 1	. 5	6	.7	8	. 9 💮 E	llipse
					_	21	ine
5						•3 0	ieneric
		\$R new	r SF	₹\$V"\$V			rame
core							
	Pacetiviey					JIII 8	larcode
systems						:= L	list Theoret
+							-nan. Secretab
							rosstab
						- Cor	nposite ciements
						-	otal Pager
							Current Date
2	Subreport				-	ПХ	
-	a subrepore						rentane
1	Subreport						e X of Y
	Please specify a report to be used a	s subreport, or just pres	s finish to create a	n empty subreport	element.		
·	Create a new report						Notes 23 St Pion
							valu
	 Select an existing report 					_	
						^ 🗔	
<pre>(fie(6)&aiVe(0E010pangdn(d01/d1,32uihuthatple0)he*7 + **+ fieldie r</pre>							
•							
					Select	a report file	
lesign Source Preview	O sur create the subreport clement						
Report State 23							
Console Errors Statistics							
				•			
				4			
	?		< Back	Next >	Finish	Cancel	

- 1. Click on Subreport element
- 2. Drag the Subreport element to your new main report and drop it into the details pane
- 3. Choose "Create new report"
- 4. Click "Next"

				-
		Zoom:		
Categories All Print Ready Reports Web Interactive Reports Format A4 Format Landscape Coresystems Reports	report	2		
Choose "Core Choose the te Click Next New Report Wizard	systems Reports mplate	<pre> 3 </pre>	nish Cancel	
e port file Please select your reports file name wi	th .jrxml extension.			
eport file Please select your reports file name wi nter or select the parent folder: 3ernhards Project	th .joxml extension.			
eport file Please select your reports file name w Inter or select the parent folder: Bernhards Project Comparison of the parent folder: Bernhards Project Comparison of the parent folder: Comparison of t	th jrxml extension.			
Port file 'lease select your reports file name w hter or select the parent folder: 3emhards Project ↑ C Cloud Report Training ↓ C Cloud Report Training	th jrxml extension.			

📎 New Rep	ort Wizard					-		×
Data Source	•							
Select a Data	a Source and design the query.							
Data Adapter	Bernhards Adapter - Coresystems Cloud Connection	1					~	New
		-	~		Activity ActivityCode ActivityCompo: ActivityFeedbac ActivitySubType ActivityTemplat ActivityTemplat ActivityTopic Aldress Alert Approval Attachment Attribute AttributeValue Batch BatchQuantity BlanketOrder Branch BusinessPattnet	sedCode :k :e	:	
Versions	~	 ^	✓ x	> 10 > 10 > 10	BusinessPartner BusinessPartner BusinessProcess	Address Group sStepDef	inition	
?		< Back	2	ext >	Finish		Cano	el

- 1. Choose your Data Adapter
- 2. Click Next.



- 1. In this field you could enter a query. For this example we leave this blank and enter the query later on.
- 2. It is Ok to click OK now 😂

Dataset Fields	>> Fields	C
	<<	
Use the group fields as sort fields	elect this option if you want to aggregate all the group fields with th	he same value and not only t



1. In the main report you can now see the subreport as a red rectangle. This means it is not fitting in the main report. You have to resize it.

				and Subreport
		\$R new	SR \$V " \$V	IIII Barcode
CORO				i E List
	Peacetiveever			Chart
systems				Composite Elements
				# Page Number
	•			Σ Total Pages
				51 Current Date
				Time
				% Percentage
				W/W Page X of Y
				Properties 🖾 💽 Problems
				🔚 Subreport: Subreport
	Detail 1			👚 Appearance and Subreport 🔲 Advanced
				Location
				х 0 рх у 11 рх
				Position Type Fix Relative To Top \checkmark
				E Size
				w 555 px h 70 px
				Stretch Type No Stretch ~
(Givial Ve(OE(Nopengan (dr) / dr1, 31u) hulti, atpleto) e*)'+""+ fieldiæktæjtæjtæjtængenfythføl, bbjintstreentjelet	ddressfjeldValbe("Rodolyddog(MCd	Tmþanythi(d"ziðÆpdell)	Color
				Forecolor Backcolor
				Transparent

1. Select your subreport

2. Change the size of the subreport to w = 555 and h = 60 px. Now double click on your subreport and it will open a new window where you can edit the subreport.

orts.jrxml 📓 report_1.jrxml 🔀		😲 Palette 🐹
	🔜 🕶 🚍 🗨 🗨 150% 🛶 💂 Settings 💌	Basic Elements
	5 6	📫 Note
		I Text Field
		Note: Static Text
	\$R new \$R \$V " \$V	💽 Image
Pagritieader		Carl Rectangle
		Ellipse Composite Elements
		# Page Number
		Σ Total Pages
	Band: Detail 1 [200px]	Current Date
		Time
		% Percentage
		#/# Page X of Y
Detail 1		🔲 Properties 🔀 💦 Problems
		🗎 Band: Detail 1 [200]
		The Appearance Advance
		Layout
		Layouts Free Layout
'+'''+ 'ieldizidize(Küzengarfyihfð1, blu)Indstreed	"hà iliA čid rtess fileitid Va libe("fūdidh(zel og(frfūd"mþilunytilifo"zi)) Dodall)	Band Properties
		Height 200 px
		Split Type <nul< td=""></nul<>
		Print When Expression

1. In your subreport open the query editor. Here you can edit your dataset.

🗞 Dataset and Query Dialog				- 🗆 X
Bernhards Adapter				
Query Java Bean				
Language CoreSQL	~			Read Fields
versions			Solutions of the second	StartDateTime ^ StartDateTimeTimeZoneld ©option eDateTime ePerson unt uateTime ePerson unt uateTimeZoneld nalld ps ive naRemarks hanged hanged hanged ti rs rks ★
		A ¥		
Field Name	Class Type	Description	Properties	^ Add
te.branches	java.lang.Object			Dalata
te.breakInMinutes	java.lang.Object			Delete
te.breakStartDateTime	java.lang.Object			Up
te.breakStartDateTimeTimeZoneId	java.lang.Object			
te.chargeOption	java.lang.Object			Down
te.createDateTime	java.lang.Object			
te.createPerson	java.lang.Object			
te.discount	java.lang.Object			~
<				>
Fields Parameters Sorting Filter Expression Data	ı preview			
0			4	OK Cancel

- 1. Choose your Data Adapter
- 2. Choose Language "CoreSQL"
- Enter this query into the editor: SELECT te FROM TimeEffort te WHERE te.object = \$P{activityID} This will select all data from TimeEffort table using the given activityID Parameter. This parameter is configured in the main report (see below) and will contain a value handed over from the main report.
- 4. Click OK to save the query

ery Java Bean				
nguage CoreSQL	1			Read Fiel
SELECT a.sc.bp.ad FROM Activity a INNER (ION ServiceCall sc ON aobject = INNER (ION ServiceCall sc ON aobject = INNER (ION ServiceSPattner bp on sc bue LEFT JOIN Address ad ON ad.object = bp WHERE a.id=SP[objectID]	inesspanner = bp.id id			dCode
Versions Activity 18 ServiceCall 21 BusinessPartner 20 Address 18	ک ا	A.Y.	∧ ∨ x > BathToule*Build ∧ ∨ x > BathCluarthOut* ∧ ∨ x > BathCluarthOut* ∧ ∨ x > BanketOfder ∧ ∨ x > BanketSPather4 ∧ ∨ x > BusinesPather4 ∧ ∨ x > BusinesPather4	iddress iroup
riel Name c.address c.branches c.branches c.businessPartner c.businessProcessStepAssignments c.checkedOut c.checkedOut c.code	Class Type java.lang.Object java.lang.Object java.lang.Object java.lang.Object java.lang.Object java.lang.Object java.lang.Object java.lang.Object	Description	Properties	Addi Dele Up Dow

- 1. Go back to your main report and open the Query Editor. Make sure CoreSQL is selected as Language
- Delete the existing query and add the following new query in the editor: SELECT a,sc,bp,ad FROM Activity a INNER JOIN ServiceCall sc ON a.object = sc.id INNER JOIN BusinessPartner bp on sc.businessPartner = bp.id LEFT JOIN Address ad ON ad.object = bp.id WHERE a.id=\$P{objectID}

This query will select information based upon a parameter value (objectID). This value will later on be provided from the mobile app when you want to see a report for a given activity.

Main Report		🔿 🗸 🥅 🔿 🗐 150% 🗸 📓 Settings	Basic Elements	
0 • • • • • • • • • • • • • • • • • • •	3 🕺 Properties	- × 8		A
	Subreport Parameters		Frame	
	Subreport Parameters Map.		and Subreport	
		4	IIII Barcode	
CORO	Name Expression	Add	‡⊟ List	
		Edit	🏉 Chart	
systems			Composite Elements	
		Delete	# Page Number	
		Up	Total Pages	
Conf	figure the Parameter	X Down	🛅 Current Date	
	the Configuration Dislam	Conv From Master	🗊 Time	
Parame	is distances and define the ethility of a December with		% Percentage	
the f	ields below		#/# Page X of Y	
Paramet	er Name activityID 5	✓	Properties 🛛 👔 Problems	
Paramet	er Expression SF{a.id}		Subreport: Subreport	Search Property
	6		P Appearance Subreport	Advanced
	-			
			Run To Bottom Default	~
		×	Overflow Type Stretch	\sim
(?)	7 ок	Cancel	Using Cache Default	~
			Expression "report_1	.jasper" 🔘 🌄
	?	8 Finish Cancel	Parameters Map Expression	0
			Connection Expression SP{REPO	RT_CONNECTION} 2
		>	Data Source Expression	0
gn source Preview			Edit 6	eturn Values Edit Parameter
leport State 🛛			Contra	3
sole Errors Statistics				-
			~	

- 1. To add a Parameter which can then be used in the subreport, you have to go to the main report. Select the subreport by clicking on it.
- 2. You will see the subreport Properties on the right. Select the tab "Subreport" to be able to edit the Parameter.
- 3. Click on "Edit Parameters"
- 4. Here you click "Add" to add a new parameter
- 5. Choose a name for your parameter. This name will be referenced in this example in the subreport (see above) as \$P{activityID} and should be used to define the dataset for the subreport.

- 6. Here you define the value of your parameter. This is a field value which contains the Activity ID (from your query).
- 7. Click OK
- 8. Click Finish

ository 🔁 Project Expl 🕄 📟 🗖	😰 "report.jami 😰 "report.jami 😰 "report.jimmi 😰 "report.jimmi 😒 "	D 😳 Palette 😂
🖻 🔩 🔻	🔜 Main Report 💿 👻 💭 🔍 😨 Settings	Basic Elements
Bernhards Project	0 ••• •• ••• ••• ••• ••• ••• ••• ••• ••• ••• ••• ••• ••• ••• ••• ••• •• ••• •• ••• •• ••• •• ••• •• ••• •• •• •• •• •• •• •• •• •• •• •• •• •• • • • • • • • •	🔼 Note
MyReports		Text Field
		abu Static Text
	Column Header 2	💼 Image
	-	Break
		Rectangle
		Composite Elements
		I Page Number
	1	2 Total Pages
		Current Date
	· · · · · · · · · · · · · · · · · · ·	Time
	Detail 1	% Percentage
	Band: Detail 1 (200px)	RIE Page X of Y
		Properties 🕄 👔 Problems
	m	Band: Column Footer
		The Appearance Advanced
line 🛿 🗄 💕 🔍 🗆		Layout
report_1 ^	Column Footer	Layouts Free Layout ~
Parameters	·	Bard Barata
Fields		band Properties
5 Sort Fields		Height 50 px
fx PAGE_NUMBER		Split Type
fx MASTER_CURRENT_PAGE	·	Print When Expression
fx COLUMN_NUMBER	<	Return Values
fx REPORT_COUNT	Design Source Preview	
fx PAGE_COUNT fx COLUMN COUNT	Report State 12	
fx Duration	Console Errors Statistics	
Scriptlets		^
Page Header		
E Column Header		
Detail 1 [200px]		
Page Footer		
East Page Footer		

- 1. Open your subreport and delete everything **except the Detail band**. Add a **Column Header** by right clicking on it and then choose "Add Band" from the menu.
- 2. Your new Column Header Band is added here
- 3. Add a Column Footer
- 4. Your new Column Footer Band is added here. Then your subreport should look like in the picture above.

Page Format Page Format Format Custom	×	# Co	mposite Elements Page Number Total Pages Current Date Time Percentage Page X of Y		
Width 2 555; pixel ~ Height 8 60; pixel ~ Units pixel ~ Page Orientation • © Portrait O Lendscape • Margins Columns Top 4 0; pixel ~ Bottom 5 0; pixel ~ Left 6 0; pixel ~ Right 7 0; pixel ~		v Defa	Report: report_1 Report Advanced reate bookmarks staset en Resource Missing Type plet Class ource Bundle ault Data Adapter	Null ~ translations	Search Prop
<u>()</u> Ок	Cancel	Pa	ige Format	Pag	e: 555x60 Portrait
		× >		edit Page Form	at

- 1. Click in the gray area in the middle of your screen. This will select the Subreport Properties which can then be changed on the right hand side. There click on "Edit Page Format" to change the size of the subreport.
- 2. In the upcoming "Page Format" change the Width to 555.
- 3. Change the Height to 60
- 4. Change top margin to be 0

- 5. Change bottom margin to be 0
- 6. Change left margin to be 0
- 7. Change right margin to be 0
- 8. Click OK.

Column Header 🕜	www.Static Text
Band Detail 1 (200pu) Detail 1 3	
	Properties (2) Problems Band: Column Footer Searc Appearance Advanced Layout
Column Footer	Layouts Free Layout ~
n Source Preview	Height Spine (NUL) > Print When Expression Return Values
port State S	

- 1. Select the Column Header.
- 2. Change the Height to 20
- 3. Change the Detail Height to 20
- 4. Change the Footer Height to 20.

39	<field class="java.lang.Object" name="te.totalPrice"></field>
40	<field class="java.lang.Object" name="te.udfMetaGroups"></field>
41	<pre><field class="java.lang.Object" name="te.udfValues"></field></pre>
42	<field class="java.lang.Object" name="te.unitPrice"></field>
43	<variable class="java.math.BigDecimal" name="Duration"></variable>
44	<pre><variableexpression><![CDATA[(new BigDecimal((DATEVALUE(\$F{te.endDateTime})-DATEVALUE(\$</pre></variableexpression></pre>
45	
46	<columnheader></columnheader>
47	<pre><band height="20"></band> 2</pre>
48	
49	<detail></detail>
50	<band height="20"></band>
51	
52	<columnfooter></columnfooter>
53	<band height="20"></band> 4
54	
55 </td <td>jasperReport></td>	jasperReport>
56	
<	
Design	Source Preview
	A
👗 Repo	ort Sané 🛛
· · · · ·	Free Onto the
CONSOL	ETTOIS STATISTICS

- 1. IF you cannot change the Height sizes (can be buggy) you have the possibility to change the sizes directly in the source. Click on Source.
- 2. Edit the Height of the ColumnHeader Band to 20
- 3. Edit the Height of the Detail Band to 20
- 4. Edit the Height of the ColumnFooter Band to 20. Then click on Design and the Subreport should now show the correct size.

		Expression Editor Expression Editor Expression editor. (new BigDecimal(IDA7EVALLEE) SF(teende)	dDateTime]]-DATEVALUE(\$F(te.sta	D	X	Composite Elements Catal Page Number Catal Pages Current Date Time Percentage Page X of Y Properties 12 @ Problem	4 (5 - 1 + 1 - 5	0	
Counte 22 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	n Source Printee por Sate 22 ale Error Statistics	Portuge Portuge	hence the field Object Anaxis Montage Transformation of the field Object Anaxis And Charles from Field Object Anaxis and the field Object Anaxis and the field Object And Charles of the Object And Charles of the Object And Charles of Field Object And Charles of Fiel	equak Opport Jondon Vertilland Can kadCadeD of Koldwyd Talong		27 Vardhel: Vardele / Wolged: Advanced Wolged: Advanced Database Value Classifier Native Value Expension India Value Expension Ind	Series Property		

- 1. To add a new Variable you right click on Variables and choose "Create Variable". Variables are used to calculate values. We want to have the duration of an activity calculated as this value cannot be found in the table.
- 2. Name your variable
- 3. Choose java.math.BigDecimal for calculation
- 4. Calculation does not need to be changed for this type
- 5. Click on the Expression Editor Icon. This will open the Expression Editor where you can then add a formula for your variable
- Add the following formula: (new BigDecimal((DATEVALUE(\$F{te.endDateTime})-DATEVALUE(\$F{te.startDateTime}))/(1000.0*3600))) This will use the Fields from your query and calculate the duration.
- 7. Click on Finish. If you have a syntax error it will show you an error message.



- 1. Now we want to create a calculation on a field. Here we want to have a sum of the durations of a certain activity. To do this we create another Variable called "Total Duration".
- 2. Call the Variable "Total Duration"
- 3. Choose the Type as "java.math.BigDecimal"
- 4. Now we can use the builtin Calculation method where we choose "Sum"
- 5. For the Expression we choose the variable we defined in the above steps: \$V{Duration}. So the sum will be calculated over all the Durations of a certain activity.

"Start Datum" 1 \$F{te.startDateTime}	"Startzeit" 3 \$F{te.startDateTime}	"Endzeit" 10 "Dauer" 12 \$F(te.endDateTime) \$V(Duration) 13 10 "Total: " + \$V{Total 11	ww Static Text ■ Image Break ■ Rectangle ← Elliose ■ Composite Elements	-
	Pattern Format Pattern Specify format pattern, in java s	- C X	Page Number Total Pages Current Date Time Percentage Recentage Recentage	
	Number Parcentage Currency Scientific Trone Oran	Pattern Mi (dy)ternm a 0 0/21/17 8:35 AM Template Formats 0/21/17 Migard 22, 2017 Migard 22, 2017 Migard 23, 2017 Migard 23, 2017 Migard 24, 2017		Search Property .
Source Preview Fort State 12 Ie Errors Statistics	Date format is used to display da format to display only time port	ate and time part of date values. Use time ion. 3 Finish Cancel	 Rotation <u>St</u> / ///15 □ Font DejaVu Sans B Z U S	✓] 9 ¥ Å [*] Å [*]

- 1. Finally we put the relevant field onto the subreport. First drag and drop a text field from the right and enter "Start Datum" as the value. Put it into the Column Header Band.
- 2. Add another text field but this time put it into the Detail Band. Add the value there as a Field Value (\$F{te.startDateTime}).
- 3. Add text field with "Startzeit" as a value into the Column Header Band
- 4. Add text field with the same variable as before.
- 5. This is the Variable definition
- 6. Here you can format the variable so it will only show the time but not the date. Click on the dotted button. This opens the pattern editor.
- 7. In the pattern editor choose Date and then select the pattern which is the closest to what you need.
- 8. Here you can finetune the pattern and delete the date placeholders so the pattern remains as "h:mm a".
- 9. Click Finish
- 10. Add text field with "Endzeit" as a value into the Column Header Band
- 11. Add text field with a field \$F{te.endDateTime}
- 12. Add text field "Dauer"
- 13. Add text field with variable "\$V{Duration}"
- 14. Add the calculated field "\$V{Total Duration}". This is the only field which is located in the ColumnFooter band.

CORE [®] "A	sR new sR sV * sv ctivity ^{Pa} 9¢\$P¢{\$€/subject} (Ì	IT Tet Field ur Static Tet Image Image Restrict Restrict Restrict Internet Restrict Internet Restrict Internet Restrict Internet In
"Businesspartner: " + \$F{bp.name} "Strasse: " + \$F{ad.street}	<pre>^Activity ID: * + \$F{a code} `Strassenummer: * + {\$F{a dstreetNo} == null ? "Nicht definiert": \$F {a dstreetNo}) </pre>		IT Page Number IT Total Pages Current Drite IT me Percentage IT Page X of Y
	Detail 1		Poperates II if Poolens TextField: Strassenm.mer: *+ (SF(actu. Serie) Property TextField: Strassenm.mer: *+ (SF(actu. Serie) Property TextField: Series Provements TextField: Series Provements TextField: Series Provements
	Band: Detail 1 (250pc)		Lapteston zarazentamiente (nrjeszuestin nr an al nacin denine) - v v v
(fieldikklue(d6560pmpyinjdr)(d1, it),It),It),It),It)	** * ###AMAJah@dr@unginf@r.02, 330(rol0.eet/3476/dr-st/heit/a Der Köddpungt/Körc@augukt/rol0.cedut)	J , `	Pattern Expression
arce Preview State 12 Errors Statistics		-	E Font DepXVI Sans v 9 v A- A- B I ∐ ⊕ Markup none v

- 1. Now finalize your main report. To do this place a text field with "Activity: + \$F{sc.subject}" into the Page title band. The syntax to concatenate strings is by just using a "+" sign between the two strings or field values.
- 2. Add a text field with "Businesspartner: "+ \$F{bp.name}

- 3. Add a text field with "Strasse: " + \$F{ad.street}
- 4. Add a text field with "Activity ID:" + \$F{a.code}
- Add a text field with "Strassennummer: " + (\$F{ad.streetNo} == null ? "Nicht definiert" : \$F{ad.streetNo})

This is the syntax for a conditional field value. It means, that if the query returns a null value for the Street number, then it prints "Nicht definiert". Otherwise it simply displays the Street number.

📱 Bernhards Ad 🔹 🕨 🔹 Java	$\bullet \mid \Leftrightarrow \Leftrightarrow \stackrel{Page of}{\to} \Leftrightarrow \ominus \mid @, @, \boxed{\bullet} \checkmark \boxdot \boxdot \boxdot \blacksquare \blacksquare \blacksquare \blacksquare \bullet$	
Input Parameters		
objectID 199D4023BB4B4EBD89EFA4738D54CA3B 2 2 3 ↓ reset	The report requires that you specify the value for some parameters before running it.	
Design Source Preview		
Report State ☆ V Cons Errors (0) Statis		
Start Report Execution Compiling reportDONE StartingReport Execution Finished. The report requires that you specify the value f	or some parameters before running it.	^

- 1. To now preview your full report you need to click on the Preview tab below your main report window.
- 2. In the objectID Field it displays your default value you entered for the objectID variable. Here you could also choose another value and change it manually before your report gets displayed. This value is entered without double quotes. The value was taken from a query in the QueryAPI in FSM earlier on (click <u>here</u> to go back there).
- 3. Click on the green arrow to display your report.

COFE	* Activ	vity: Anderer Print	Date 23/08/17 er defekt	Page 1/1
Businesspartner: Aarg Strasse: Neue Aarauers	auer Zeitung strasse	Activity ID: 43 Strassennummer: 31		1
Start Datum	Startzeit	Endzeit	Dauer	
11.08.17 15:05	3:05 PM	3:20 PM	0.25	
11.08.17 15:06	3:06 PM	3:21 PM	0.25	
			Total: 0.50	

1. Your report should look similiar to this example report now.



- 1. Before you upload your new and shiny report, you need to delete the default value (if set) of the variable objectID. To do this click on the parameter in your main report.
- 2. In the properties tab on the right side you can then delete any value in the "Default Value Expression" field.

Properties X 🔊 Problems	
	\bigtriangledown
Parameter: objectID Search Property	_
1 Provenance Deject Advanced	
Name* objectID	
Title	
Description	
Type* Object Id \checkmark	
Auto Set	
Defa 2 ue objectid	
Options	
Remember v	
Required	

- 1. As a next step you need to click on the "Appearance" tab for your variable objectID
- 2. In the "Auto Set Menu" choose "objectId". This will make sure that when you call the report on your mobile app the objectId is transferred automatically so your report is linked to the corresponding activity.

Jasperson Studio			
t View Navigate	Pro	Ject Window Help	
(6 : * : 🗳 🗄		Open Project	ans $\vee _{\overline{ba}} \neq \otimes$
itory 🔁 Proje	1	Close Project	report_Timeefforts.jown 📃 report_T.jown
		Build All	
emhards Project		Build Project	
Cloud Report Training		Build Working Set	· · · · · · · · · · · · · · · · · · ·
MyReports		Clean	
	~	Build Automatically	\$R new \$R \$V'" \$V
	core	Upload Report to Coresy	ystems Cloud
	core	Download Report from O	Coresystems Cloud
		Publish the file on Jasper	rReports Server Droug report to consystem reliable
		Properties	
	-	•	"Pusiegenerators" + + ff(bp.game) = "Activity (Dr. + + ff(b.gade)
		:	businesspartner. + srtupinamer Activity ib. + srta.coder
			"Strasse: " + \$F{ad.street} "Strassennummer: " + (\$F{ad.streetNo} == null ? "Nicht definiert" : \$F
			la.succing /
		÷	
		:	
		1	
		1	Dateil 1
		:	Detail
		N .	
2		ta 🔊 = n	
port		^	
Styles		:	
Parameters			
Fields Sort Fields		:	
Variables		· · ·	
Scriptlets		1	(fiel6MalVel060%pampinj6nf31,12).lhulhuthuthabethe") + "" + field1eMatter(tteentpamparighth21, bulhottreentpileCode=Shek3daesShe
Title		1	

1. When you are satisfied with your report you can upload it to your cloud account. Click on Project/Upload Report to SAP FSM Cloud.

🧞 Upload Report to Coresystems Cloud	_		×											
Select Data Adapter														
Select the data adapter														
Com Bernhards Adapter														
2														
? < Back Next > Finish		Cancel												

- Select your data adapter where you want to upload your report.
 Click Next

🧏 Upload Re	port to Coresystems Cloud				×	
Upload Repo	ort					
Enter a repor	t name and select object types					
Report Name Object Types:	Bernhards Project					
	2 Business Partner Checklist Instance					
	Equipment					
	Sales Outation					
	Service Call					
			•			
?	< Back	Vext >	Finish	Cancel	I	

- 1. Select your project with your report
- 2. Choose the Object Type where you want to associate your report with. This means, that the new report will show up in the corresponding category on the mobile app. Our report will show up in a certain activity.



1. In your mobile app you choose the detail view of a certain activity. By clicking on "Print & Send" or "Export" (using the ... Menu) you can choose your new report template and view your new report on the mobile!

Congratulations! You now have successfully created a report with JasperSoft Studio!