**What is Query parameter in SSRS?**

Query parameters is mentioned in the query of the datasources that are to be included into the SQL script’s WHERE clause of the SQL that can accept parameters. Query parameters begin with the symbol @.The name should not contain spaces and can not begin with numeral. For clarity, we use only letters.

**• What are the Reporting Service Components in SSRS?**  
Report Designer: A place where we can create report. Report Server: Provides services for implementation and delivery of reports. Report Manager: A Web-based administration tool for managing the Report Server.

**• What is a matrix in SSRS?**  
A matrix is a data region linked to a report set. Matrix allows us to create crosstab reports with the report variables displaying on rows and columns. It allows us to drag and drop fields into it.

**• What are sub reports and how to create them?**  
A sub report is like any other reports which can be called in main report and can be generate  
through main report. Parameters can be passed from main report to sub report and basis of  
that report can be generated.

**• What is the report model project?**  
Report model project is for creating Adhoc reporting. You can create the adhoc reports  
through report builder. Report model project can be created on bids or report server. This  
model can have simple view. And using

**• What is report server project?**  
Report Server Project contains the RDL file and it need to be deployed on report server to  
view the report files to application and user.  
It a solution where we design our reports. You can add it by going into BIDS clicking on  
new item and then selecting reports server project. Once the solution is created you can start  
creating reports.

**• What is the report builder?**  
Report builder is used to create small reports and it a define interface. You can’t change the  
report interface in report builder it pre designed. You can just drag columns in the report.  
Report builder creates reports on database objects available with report model project.

**• In which SQL Server version report builder introduced?**  
Report builder introduced in SQL Server 2005. While creating or deploying report model  
project on report server you can get error or it might not get created. For this you need to  
check whether the service pack 22 is installed or not.

**• How to deploy the Report?**  
Report can be deployed in three ways.  
1. Using visual studio: In visual studio you can directly deploy the report through  
solution explorer by providing the report server URL in project properties at Target  
Server URL. This will deploy entire project or single report as per you selection.  
2. Using report server: Can directly go to the report server and deploy the report by  
browsing the report from the disk location on server.  
3. Creating the utility: SQL server provides the utility using that which can be used to  
create a customize utility for your report deployment in bulk.

**• What is RS.exe utility?**  
Rs.exe utility is used for deploying the report on report server. It comes with the report  
server and can be customize accordingly.

**• What is the name of reporting services config file and what’s it’s used for?**  
Reporting service config file is used for report configuration details. It contains the report  
format and also the report import types. Report service config reside at ISS.

**• What are the three different part of RDL file explain them?**  
In visual studio RDL files has three parts.  
1. Data: It contains the dataset on which we write the query. Data set is connected with  
data source.  
2. Design: In design you can design report. Can create tables and matrix reports. Drag  
columns values from source.  
3. Preview: to check the preview after the report run.

**• Which language rdl files made of?**  
RDL files are written in XML.

**• What is the chart in report?**  
Chart reports are for graphical representation. You can get pie charts columns harts and  
various other options.  
3d charts are also available in reporting services.

**• What is Data Set in report?**  
Data set are the set of data which we want to show in report. Data creates on data source.  
Data source is the source of data from where we are getting this data i.e. database server and  
database name connection string.

**• What are the different types of data sources in SSRS?**  
SSRS use different data source. Some of them are listed below.  
1. Microsoft SQL Server  
2. OLEDB  
3. Oracle  
4. ODBC  
5. SQL Server Analysis Service  
6. Report Server Model  
7. SAP Net weaver BI  
8. Hyperion  
9. Teradata  
10. XML

**• What is the web service used for reporting services?**  
Reporting Service Web Service used in SSRS. By accessing this web service you can access all  
report server component and also get the report deployed on report server.

**• How to add the custom code in Report?**  
To add the custom codes in report go to report tab on top then properties and there you will  
find the options for custom code.

**• What is a cache in SSRS?**  
Report server can lay up a copy of processed report in a memory and return the copy when a user opens the report. This server memory is known as cache and the process is called caching.

**• What is report snapshot in SSRS?**  
Report snapshot is a report which contains layout information and a dataset that is extracted at a particular point of time. When the new snapshot is created the previous report snapshot will be overwritten.

**• What is bookmark link in SSRS?**  
Bookmark is a link which a person clicks to shift to a different area or page in a report. We can insert bookmarks links only to textboxes and images.

**• What is Command parameter in SSRS?**  
A Command parameter is used to forward protocol to the Report Server regarding the item that has been retrieved. Command parameter is also used for rearranging a user’s session information.

**• What is Format parameter in SSRS?**  
Format parameter is used to control report output. Every delivering format on Report Server has to pass through this parameter.

**• What is Snapshot parameter in SSRS?**  
When a report is saved in a snapshot history, it is allocated a time or date to uniquely identify that report. Snapshot parameter is used to get back these historical reports by passing this time or date to get proper report.

**• What are the rendering extensions of SSRS?**  
Rendering extensions manage the category of document produced when a report is processed. Rendering Extensions are: HTML, MHTML, EXCEL, CSV, IMAGE, PDF, and XML.

**• What is a ReportItem in SSRS?**  
A ReportItem is one of the subsequent types of items: Rectangle, Textbox, Image, Subreport, Line, CustomReportItem, List, Table, Matrix or Chart.

**• What is Datasets in SSRS?**  
Dataset elements have information about the sets of data recovered as a part of the report.

**• What are the main components of reporting services?**  
The main components of Reporting Services are

1. Report designer
2. Report server
3. Report manager
4. Report user.

**• What is Report Designer?**  
Report Designer is a collection of graphical query and design tools that are hosted within the Microsoft Visual Studio environment.

Report Designer provides a Report Data pane to organize data used in your report, and tabbed views for Design and Preview so that you can design a report interactively.  
Report Designer also provides query designers to help specify data to retrieve from data sources and the Expression dialog to specify report data to use in the report layout.  
When the report is complete, you can use Report Designer to preview the report and publish it directly to the report server.

**• What is Report manager?**  
Report Manager is a Web-based report access and management tool that you use to administer a single report server instance from a remote location over an HTTP connection. You can also use Report Manager for its report viewer and navigation features.  
You can use Report Manager to browse the report server folders or search for specific reports. You can view a report, its general properties, and past copies of the report that are captured in report history.

**• What is Report Builder?**  
Web-based tool to create reports  
Come free with SQL Server 2005  
Launch Report Builder 1.0 to create ad hoc reports that you can save and run on the report server.  
Users build desired reports themselves; can export to Word, Excel, PDF, and more

**• What is Report Server?**  
The report server is the central component of a Reporting Services installation. It consists of a pair of core processors plus a collection of special-purpose extensions that handle authentication, data processing, rendering, and delivery operations.

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1. **You want to include an image in a report. How do you display the Image Properties dialog box?**   
   When you drag an image item from the Toolbox window to the Report Designer, the Image Properties dialog box automatically opens.
2. **You want to configure an amount to display the value in a currency format. Which property do you use?**  
   To configure an amount to display a value in a currency format, select the report item, and then set the format property to C or c.
3. **What are data regions?**Data regions are report items that display repeated rows of summarized information from datasets.
4. **You want to generate a report that is formatted as a chart. Can you use the Report Wizard to create such a report?**   
   No, the Report Wizard lets you create only tabular and matrix reports. you must create the chart report directly by using the Report Designer.
5. **You want to use BIDS to deploy a report to a different server than the one you chose in the Report Wizard. How can you change the server URL?**   
   You can right-click the project in Solution Explorer and then change the Target-Server URL property.
6. **Which rendering formats are affected by the PageSize properties?**Because only the Adobe PDf file, Word, and Image rendering extensions use physical page breaks, they are the only formats that are affected by the PageSize properties.
7. **Can you use a stored procedure to provide data to an SSRS report?**Yes, you can use a stored procedure to provide data to an SSRS report by configuring the dataset to use a stored procedure command type. However, your stored procedure should return only a single result set. If it returns multiple result sets, only the first one is used for the report dataset.
8. **You want to use a perspective in an MDX query. How do you select the perspective?**Use the Cube Selector in the MDX Query Designer to select a perspective.
9. **Can you use data mining models in SSRS?**Yes, you can use the DMX Designer to create data mining queries for SSRS reports. However, do not forget to flatten the result set returned by the DMX query.
10. **You want your report to display a hyperlink that will take users to your intranet. How do you configure such a hyperlink?**Create a text box item, set the action to Go To URL, and then configure the URL.
11. **You want a report to display Sales by Category, SubCategory, and Product. You want users to see only summarized information initially but to be able to display the details as necessary. How would you create the report?**Group the Sales information by Category, SubCategory, and Product. Hide the SubCategory group and set the visibility to toggle based on the Category item. Hide the Product category group and set the visibility to toggle based on the SubCategory item.
12. **You want to create an Excel interactive report from SSRS. In SSRS, can you create the same interactive experience in Excel that you would have on the Web?**No, you cannot create the same experience with SSRS. you can, however, use Excel to create such an experience.
13. **What is the main difference between a Matrix report item and a Table report item?**The main difference between a Matrix and a Table report item is in the initial template. Actually, both report items are just templates for the Tablix data region.
14. **When you do not use report caching, is it better to use parameters to filter information in the query or to use filters in the dataset?**From a performance perspective, it is better to use parameters because they let SSRS pull filtered data from the data source. In contrast, when you use filters, the queries retrieve all data and then filter the information in an additional step.
15. **How do you configure a running aggregate in SSRS?**You can use the RunningValue function to configure a running aggregate.
16. **What is the main purpose of a report parameter?**   
    The main purpose of a report parameter is to add interactivity to your reports, letting users change the report behavior based on options they select.
17. **What is the main purpose of a query parameter?**   
    The main purpose of a query parameter is to filter data in the data source.
18. **You want your users to select a parameter from a list of values in a list box. How should you configure the parameter?**   
    You should create a data source that contains the possible values and then bind the data source to the parameter.
19. **What is the main benefit of using embedded code in a report?**The main benefit of using embedded code in a report is that the code you write at the report level can be reused in any expression in the report.
20. **What programming language would you use to create embedded functions in SSRS?**   
    An SSRS report supports only visual Basic .nET embedded code.

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1. **How do you reference an embedded function in a report expression?**Use the Code prefix and the name of the function to reference an embedded function in a report expression.
2. **Which of the following are valid options for deploying a report? (Choose all that apply.)**a. With BIDS   
   b. With the Computer Management console   
   c. With the .nET START command   
   d. With SSMS   
   e. With Report Manager   
   The correct answers are a and e, BIDS and Report Manager.
3. **Why should you not overwrite a shared data source in production?**You should not overwrite a production-shared data source because the administrator has probably already changed some connection string properties.
4. **Can you edit a report that an end user created by using Report Builder in BIDS?**  
   Yes, if an end user created a report by using Report Builder in BIDS and saved the report definition file, you can open the file in BIDS and edit it.
5. **How can you manage reports from your application if the report server is deployed in SharePoint integrated mode?**  
   Use the ReportService2006 endpoint of the SSRS Web service if your report server is deployed in SharePoint integrated mode.
6. **In which processing mode of a report viewer control can you use the full functionality of your report server?**You should use the remote processing mode to use the full functionality of your report server.
7. **What types of roles are available in SSRS 2008, and what are their purposes?**   
   Item-level roles and system-level roles are the two types of roles available in SSRS 2008. An item-level role is a collection of tasks related to operations on an object of the report object hierarchy of SSRS 2008. A system-level role is a collection of tasks related to operations on server objects outside the report object hierarchy of SSRS 2008.
8. **Can a user or group belong to more than one item-level or system-level role?**   
   Yes, in SSRS 2008, a user or group can have more than one association to a system-level or an item-level role.
9. **When storing the credentials of a data source in the server, are those credentials safe?**Yes, the data source credentials are safe because Reporting Services encrypts them and stores them in the ReportServer SQL Server database.
10. **What happens if you do not specify a parameter value in a subscription and the parameter does not have a default value?**   
    If you do not specify a parameter value in a subscription and the parameter does not have a default value, the execution of the report will fail.
11. **You want to create a subscription to a report. However, when you right-click the Subscription subfolder of the report, you notice that the new Subscription option is dimmed. What is wrong?**When the new Subscription option is dimmed, the report probably does not use stored credentials for accessing the data. SSRS needs these credentials stored in its own ReportServer database to execute a report on a schedule.
12. **What can you do if your query with properties for a data-driven subscription does not provide values for all of the subscription properties?**If your query with properties for a data-driven subscription does not provide values for all of the subscription properties, you can use text and default values instead. These values are then used for parameters of all subscriptions you get from the query.
13. **What mechanisms do you identify to reduce the overhead of Reporting Services data sources?**  
    Snapshots and cached reports can help reduce the processing pressure on data sources and improve report response time.
14. **Can you always create a cache of a report?**No, you can create a cache of a report only when certain requirements, such as having credentials stored in the Report Server, are met.
15. **Can you edit the .rdl code associated with a linked report?**No, because a linked report has no .rdl code of its own. It refers to the .rdl code of the base report.
16. **Which of the tools and utilities described in this lesson can change or create the virtual directories for the report server and Report Manager after installation?**Only Reporting Services Configuration Manager can enable and name the virtual directories for the report server and Report Manager.
17. **What is the file name extension for an encryption key backup?**   
    Encryption key backups have an .snk file name extension.
18. **What are the three SSRS command-line utilities and their primary functions?**RSConfig.exe is used to define the connection properties from the SSRS instance to the Report Server database; RSKeyMgmt.exe performs encryption key operations and scale-out deployment setup; RS.exe runs Report Server Script files that can perform report deployment and management operations.
19. **If you want to disable one of the rendering options in the Save As drop-down list when viewing a report through Report Manager, where do you do that?**The visibility property for any of the rendering devices can be changed by modifying the RSReportServer.config file and locating the <ExtensionName="RenderDevice"/>  tag for the specific device.

1) What are the different kinds of SSRS Reports?

* Reports can be categorized into operational and analytical reports. The distinction is based on the source of data and level of analysis facilitated by any particular report. Operational reports are based on OLTP sources and are static reports and Analytical reports are based on OLAP sources and generally facilitate drill-down and drill-through for analysis. Technically, SSRS reports can be categorized into parameterized, linked, snapshot, cached, etc...
* [Further Reading](http://msdn.microsoft.com/en-us/library/bb630404.aspx)

2) What are parameterized reports? What are cascading parameters in SSRS reports?

* Reports that accept parameters from users to fetch and report data conditionally, are known as parameterized reports. When you have multiple parameters in a report and values of different parameters are dependent and populated dynamically based on the value of parent parameters, it's known as a cascading parameter.
* [Further Reading](http://msdn.microsoft.com/en-us/library/aa337426.aspx)

3) How would you go about developing a SSRS report?

* General development methodology for a SSRS report is to start by creating a data source. Based on the data source create one or multiple datasets as needed for parameters and the body of the report. Add required controls from the toolbox which would act as a container for the fields in the dataset. Format the controls added to the report body.  Verify and validate the report and finally deploy the report.
* [Further Reading](http://www.mssqltips.com/sqlservertip/1369/developing-sql-server-reporting-services-reports-in-teams/)

4) What is a dataset and what are the different types of datasets?

* A dataset is similar to a query definition, which is executed when the report is executed. Datasets are of two types: Shared and Embedded. An embedded dataset is private to the report in which it exists and shared datasets can be shared across reports.
* [Further Reading](http://msdn.microsoft.com/en-us/library/dd239331.aspx)

5) Would you store your query in a SSRS report or a Database server? State the reason why.

* Storing SQL queries directly in text format in the dataset, should be avoided. Ideally it should be stored in a stored procedure in the database server. The benefit is that the SQL would be in a compiled format in a SP and brings all the benefits of using an SP compared to using an ad-hoc query from the report.
* [Further Reading](http://siddhumehta.blogspot.com/2011/07/ms-bi-architecture-design-layers.html)

6) What is Tablix?

* A Tablix can be seen as a control with combined capabilities of a table and a matrix, which facilitates asymmetric and flexible, row and column level, static and dynamic groupings.
* [Further Reading](http://msdn.microsoft.com/en-us/library/dd220587.aspx)

7) How would you access SSRS reports deployed on report server?

* Reports Manager is the most straight-forward way to access SSRS reports deployed on report server. Apart from executing the reports, it is the main administration console for SSRS server to manage reports.
* [Further Reading](http://msdn.microsoft.com/en-us/library/ms157147.aspx)

8) Have you used the Report Viewer control / web part? What are the limitations?

* The report viewer control / web part is the basic control to integrate SSRS reports with external applications. Using these interface applications can link and display SSRS reports within the application. The parameters toolbar in these controls have a limited programmable interface to decorate and blend it with the theme of the application.
* [Further Reading](http://siddhumehta.blogspot.com/2011/03/customizing-and-formatting-ssrs.html)

9) Which is the latest version of SSRS and what are the new enhancements?

* SSRS 2008 R2 is the latest RTM version of SSRS. Rich data visualizations, better programming functions for lookup and aggregation, improved performance and better control over exported data are some of the major enhancements.
* [Further Reading](http://msdn.microsoft.com/en-us/library/ms170438.aspx)

10) What is Report Builder?

* Report Builder is an ad-hoc report authoring tool primarily targeted to be used by business analysts to facilitate self-service report authoring. Report Builder 3.0 is the latest version available as of date.
* [Further Reading](http://msdn.microsoft.com/en-us/library/dd207008.aspx)

11) How would you deploy SSRS Reports using out-of-box functionality and how can you automate SSRS report deployment?

* Business Intelligence Development Studio is generally used to deploy SSRS reports. There is no out-of-box support in SSRS to automate reports deployment, but free third-party products like RSScripter can be used for this.
* [Further Reading](http://siddhumehta.blogspot.com/2009/10/how-to-automate-ssrs-reports-deployment.html)

12) What is drill-down and drill-through in SSRS?

* Drill-down is a mechanism of decomposing summarized information to a detailed level. Drill-through is a mechanism of decomposing the problem by drilling information generally using more than one report.
* [Further Reading](http://www.mssqltips.com/sqlservertip/1329/drill-down-techniques-in-ssrs-with-the-visibility-property/)
* [Further Reading](http://www.mssqltips.com/sqlservertip/1297/reporting-services-condition-based-drill-through-reports/)