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**1)=>What is tMap?**

tMap is an advanced component which can be integrated as a plugin to Talend Studio. This component can transform and routes data from single or multiple sources to single or multiple destinations.

2=> Difference between tmap and tjoin?

Difference. tJoin is a **basic pure** component used to do a join, including inner join and left outer join, between two data sources.

tMap is more powerful in terms of functionality than tJoin, though tMap can be used to perform the same functionality. ... tMap allows you to reload the look-up data for each main record.

3=>how to achieve right outer join in using tmap?

You can switch (right click the lookup link and modify the connection as main) your current lookup as main and main connection as lookup. Then you can do **left outer join** as right outer join.

4=>heap memory issue?

To resolve this error, you need to increase the **Xmx** parameter in the config file (such as Talend-Studio-win-x86\_64. ... To increase this parameter, you need to keep it mind the overall spec of your computer (especially the amount of RAM). As suggestion, you can perhaps start off with 2048 or 4096.

5=>Parent to child and Child to parent Context variables passing?

Create a Standard Job called ChildJob . **Open the Contexts tab** to define two context variables, name and scope . These variables are used to pass a value from the parent Job to the child Job. Add a tJava component from the Palette to the Job editor and double-click the component to open its Basic settings.

6=>Why is Talend called a Code Generator?

Talend provides a user-friendly GUI where you can simply drag and drop the components to design a Job. When the Job is executed, Talend Studio automatically translates it into a Java class at the backend. Each component present in a Job is divided into three parts of Java code (begin, main and end). This is why Talend studio is called a code generator.

7=>What is a Subjob and how can you pass data from parent Job to child Job?

A Subjob can be defined as a single component or a number of components which are joined by *data-flow*. A Job can have at least one Subjob. To pass a value from the parent Job to child Job you need to make use of context variables.

8=>How do you schedule a Job in Talend?

In order to schedule a Job in Talend first, you need to export the Job as a standalone program. Then using your OS’ native scheduling tools (Windows Task Scheduler, Linux, Cron etc.) you can schedule your Jobs.

9=>Discuss the difference between XMX and XMS parameters.

XMS parameter is used to specify the initial heap size in Java whereas XMX parameter is used to specify the maximum heap size in Java.

**10=>Explain the error handling in Talend.**

There are few ways in which errors in Talend can be handled:

* + For simple Jobs, one can rely on the *exception throwing* process of Talend Open Studio, which is displayed in the Run View as a red stack trace.
  + Each Subjob and component has to return a code which leads the additional processing.  The Subjob Ok/Error and Component Ok/Error links can be used to direct the error towards an error handling routine.
  + The basic way of handling an error is to define an error handling Subjob which should execute whenever an error occurs.

### ****11****=>How can you execute a Talend Job remotely?

You can execute a Talend Job remotely from the command line. All you need to do is, export the job along with its dependencies and then access its instructions files from the terminal.

12=>List the functions of tMap?

The functions of tMap are as follows:

* Apply transformation rules on any type of field
* Multiplex and demultiplex of data
* Filter input and output data using constraints
* Add or remove columns
* Reject data
* Concatenate and interchange the data

13=>. How to access global and context variables?

To access the global and context variables, use the shortcut key Ctrl+spacebar.

14. What are the ways to define Context variables?

There are three ways to define Context variables.

* Embedded Context variables
* External Context variables
* Repository Context variables

15. Explain Subjob?

A subjob can be defined as a component or no. of components that are joined by the data flow. Each individual component can be considered as a Subjob when they are not connected to each other. A job can have one or more sub jobs.

16. How to schedule a job in Talend?

It is required to export the job as a standalone program to schedule a job. Then using the Operating System scheduling tools such as Cron, Windows Scheduler, Linux, etc. we can schedule the jobs.

17) Which types of Joins supported by the tMap component?

The tMap component supports multiple joins and joins models, which are as follows:

**Joins:** Inner join, Left join

**Join models:** Unique join, First join and all join, etc.

18) What is the tReplicate component?

The **tReplicate** component duplicates the incoming schema into two similar output flows. And it allows us to perform different operations on the same schema. The tReplicate component is used to replicate a row as many times as needed.

19) What is the Palette panel in Talend studio?

The **Palette panel** has different technical components that we can use for building our jobs.

20) What is MDM in Talend?

The **MDM [master data management]** has all the master data into a single file. It is used to combine real-time data, applications, and integration processes with the fixed data quality to share across on-premises, cloud, and mobile apps.

21) What is the use of a Design workspace window?

It is a layout where we can design our jobs. And we can access the **Designer tab** and **code tab,** where the designer tab displays the job graphically and the code tab shows the generated code and also identify the possible errors.

22) What is the Configuration tab in Talend main window?

The **configuration tab** displays the properties of the selected element in a design workspace window. And these properties can be edit to change and set the parameters related to a particular component or the job, and the **Run tab** is used to execute our jobs.

23) What is Routine in Talend open studio?

The **Routines** are reusable pieces of Java code. It enables us to write custom code in Java, to improve Job capacity, optimize data processing, and extend Talend Studio features.

There are two types of routines available in Talend Studio, which are as follows:

* System routines
* User routines

**System Routines:**Talend provides many system routines, and the process based on the data type like string, date, numerical, and these types of routines are read-only, and we can call them directly in a Talend job.

**User Routines:**we can create our new user routines or adapt to the existing routines.

### 24)  Describe Fixed, Repository, and Generic schemas in Talend Studio?

Talend supports multiple types of schemas, which are as follows:

**Fixed Schema:** The **fixed schema** is the read-only schemas. For some components, it is inbuilt in Talend.

**Repository Schema:** We can reuse the repository schema, or if we made some changes in the schema, it automatically affects all the jobs.

**Generic Schema:** We can create a generic schema, if none of the specific metadata matches our need or if we do not have any other source file to take the schema.

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25) Explain the tJoin component?

The **tJoin** component is used to perform the inner and outer join between the main data flow and lookup flow, and this component helps us to ensure the data quality of any source data against a reference data source.

26) Why we use the tLogRow component in Talend?

The **tLogRow** component is used to display data or results in the **Run** console window. It is mainly used to monitor data processed.

27) Why we use the tSortRow component?

The **tSortRow** component is used to sort the input data based on one or more columns by sort type and order.

The main objective of the tSortRow component is to help us to create metrics and classification of the table.

28) What is the tLoqateAddressRow component?

The **tLoqateAddressRow** component is used to compare address data against reference data to make sure that it is correct and complete. If any changes needed, we can correct the spelling, add the missing address data like city, area of the city, postcode or region, and any other related data.

29) Why we use the tXMLMap component?

The **tXMLMap** component is used to transform and route data from single or multiple sources to single or multiple destinations.

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