**ASSIGNMENT DATE-05-01-2024**

**CREATING AZURE DATA FACTORY:**

Creating an Azure Data Factory involves several steps. Azure Data Factory is a cloud-based data integration service that allows you to create, schedule, and manage data pipelines that can move data between supported supported on-premises and cloud-based data stores.

Here's a step-by-step guide to creating an Azure Data Factory:

### Step 1: Sign in to the Azure portal

1. Go to the [Azure portal](https://portal.azure.com/).
2. Sign in with your Azure account.

### Step 2: Create a new Azure Data Factory instance

1. In the left-hand menu, click on "Create a resource."
2. In the search bar, type "Data + Analytics," and select "Data + Analytics" from the list.
3. Choose "Data + Analytics" from the list of services, and then select "Data + Analytics" from the "Featured" section.
4. Click on "Data + Analytics" and then select "Data + Analytics" again from the options.
5. Choose "Data + Analytics" > "Data + Analytics" from the results.
6. Click the "Add" button to create a new Data + Analytics resource.
7. In the "Basics" tab, fill out the necessary information, such as Subscription, Resource Group, Region, and the name for your Azure Data Factory instance.
8. Click "Next: Networking" and configure networking settings if necessary.
9. Click "Next: Advanced" to configure advanced settings, if needed.
10. Click "Review + create" to review your settings.
11. After reviewing, click "Create" to deploy the Data Factory instance.

### Step 3: Access your Azure Data Factory

1. Once the deployment is complete, navigate to your Azure Data Factory instance in the Azure portal.
2. Click on the "Author & Monitor" button to open the Azure Data Factory user interface.

### Step 4: Create Data Pipelines

1. In the Azure Data Factory UI, go to the Author tab.
2. Click on the "+" icon and select "Pipeline" to create a new pipeline.
3. In the pipeline canvas, add activities to your pipeline. Activities represent the operations you want to perform, such as data movement, transformation, or orchestration.
4. Connect the activities in the pipeline to define the workflow.

### Step 5: Configure Linked Services

1. In the Author tab, navigate to the "Connections" pane.
2. Click on "New" to create linked services, which are used to connect to data stores.
3. Choose the type of linked service based on the data store you want to connect to (e.g., Azure Storage, Azure SQL Database, etc.).
4. Provide the necessary connection information for the linked service.

### Step 6: Trigger and Monitor Pipelines

1. Set up triggers for your pipelines to automate their execution.
2. Monitor the pipeline runs and activities in the "Monitor" tab.

### Step 7: Debug and Test

1. Use the debug feature in the Author tab to test your pipelines and activities before deploying them.
2. Make any necessary adjustments based on the debugging results.

By following these steps, you can create, configure, and manage data pipelines in Azure Data Factory for your data integration needs.

