Azure\_Week 1 Hands-on Assignment

### Week 1: ****E-Commerce Customer Analytics Case Study Assessment****

**Graded Assignment – Azure S3, SQL, Synapse to Power BI, Data Factory**

**Source:**

An e-commerce company has shared anonymized datasets containing customer orders, transactions, and complaints. Your objective is to analyze customer behavior, transaction patterns, and issues to generate insights through Power BI.

Ecommerce Customers dataset contains over **50,000 rows** of transactions involving customers across Europe, covering **December 1, 2010 – December 9, 2011**. The dataset focuses on orders, complaints, and customer locations.

**Dataset Information:**

The dataset captures online transactions. Each transaction corresponds to a purchase by a customer. The organization is interested in tracking:

* Monthly trends in customer purchases
* Common complaints registered by customers
* Identifying high-value customers
* Visualizing regional sales patterns using dashboards

**Attribute Information:**

1. InvoiceNo
2. StockCode
3. Description
4. Quantity
5. InvoiceDate
6. UnitPrice
7. CustomerID
8. Country
9. Complaint Type
10. Complaint Status
11. Resolution Date

**Tasks (Total 100 marks)**

**Task 1 – (60 Marks):**

1. **Move the dataset** onto Azure Data Lake Gen2. – **(10 Marks)**
2. **Access the Storage Data Lake Gen2** using Synapse serverless pool. – **(10 Marks)**
3. **Create a table** in Synapse using the loaded data from the Data Lake Gen2. – **(10 Marks)**
4. **Visualize the data in Power BI:** Create **3 reports** on the following topics: – **(30 Marks)**
   * Top 5 countries by revenue
   * Monthly sales trends
   * Complaint resolution trends

**Task 2 (40 Marks):**

1. **Transfer data** from Azure Blob Storage to **Azure SQL Database**. – **(10 Marks)**
2. **Create a new container** in Azure Storage. Prefix the container name with your name. – **(30 Marks)**

**Submission Guidelines:**

Take a screenshot of every step clearly in a word document, Mention your name and login ID at the top of the document. Capture step by Step Screenshot for each of the above task, convert Word doc as PDF and upload it on LMS. Note Azure instances should have your name defined.