Microsoft Fabric in a Day Lab Manual – Lab 1

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# Working with Fabric Lakehouse – Creating your Lakehouse

## Introduction:

In this lab, you will create a Lakehouse in the Fabric workspace. A Lakehouse is essential because it serves as a centralized repository for all types of data, structured or unstructured. It enables efficient data management and analysis, forming the backbone of any data-driven operation. Go to home screen of your Fabric Workspace

## Logging into Fabric/Power BI:

**Authenticate into Fabric / Power BI:** Navigate to[app.powerbi.com](file:///C:\Users\WillCrayger\OneDrive%20-%20Lucid%20Holdings\Documents%20-%20Lucid%20Consulting%20Group\General\Training%20and%20Education\Fabric\Zero-To-Hero-with-Fabric\Labs\Lab%201%20and%20Lab%202%20-%20Creating%20a%20Lakehouse\app.powerbi.com) and authenticate in with the credentials provided to you as part of the FIAD program

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**Access the Fabric Workspace Home Screen**: This is your starting point for building the Lakehouse. The home screen is where you'll navigate through different aspects of your Fabric coursework.

## Creating Your Fabric Workspace:

**Creating your training Workspace:** Select **Workspaces** from the left-side navigation blade and choose **New Workspace**. Create a new Workspace using **fiad\_<your\_initials> (e.g. fiad\_wtc)** as the naming pattern.

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**Assign your Workspace to Fabric Capacity:** Expandthe **Advanced settings** in the **Create a workspace** blade. Select the **Fabric capacity** radial button and choose the available capacity from the dropdown then click **Apply**.

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**Selecting the Correct Workspace**: Ensure that you’re working in the correct Fabric Workspace. From the left navigate pane, click the **Workspaces** button and select the workspace created in the previous step. **Do not use the “My Workspace” environment.**

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## Configuring Workspace Settings:

**Create a new Spark pool:** Enter the **Workspace settings** from the top-right and open the **Data Engineering/Science** menu.

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**Configure default spark pool:** Select the **Default pool for workspace** dropdown and select **New pool**. Name your new pool **single\_node**. Set the **node** **size** to **small**, disable **autoscale** and **dynamically** **allocate** **executors**, and reduce the number of nodes to 1 then click **Create**. Ensure the single\_node pool is selected as the **Default**.

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**Disable High Concurrency mode:** Under the **High Concurrency** tab, toggle off **For notebooks** and click **Save**.

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## Create Bronze Lakehouse:

**Navigate to the Data Engineering Experience**: Use the experience toggle in the bottom left corner to access the data engineering tools. The experience toggle can be used to access persona specific menus.

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**Select Lakehouse:** By choosing **Lakehouse**, you initiate the process of setting up your data repository. This is an important step in establishing a central location for data storage and analysis.

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**Name Your Lakehouse**: Personalize your workspace by naming your Lakehouse **bronze\_lakehouse\_{your initials}**. Leave Lakehouse schemas disabled and click **Create**.

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# Uploading a CSV File – Creating Your First Delta Table

## Introduction:

Now that our Lakehouse has been created, we will hydrate the lake with our first batch of data. To do so, we will be using Fabric’s Lakehouse ability of uploading a CSV file and converting it to a delta table in the lake.

## Load CSV and Create Delta Table:

**Load the sample file to Lakehouse File Container:** Navigate to your Lakehouse and right-click the **Files** section. Hover over **Upload** and select **Upload files**. Click the folder icon in the **Upload** **files** blade that opens on the right side of the window. Navigate to the location of the saved **package\_types.csv** file from the course material, select the file, and click **Open**. Click **Upload** and wait for the file to be uploaded to the Lakehouse.

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## Create a Delta Table:

**Load CSV to Lakehouse Delta Table:** Navigate back to the **Files** section of the Lakehouse explorer. Right-click the **package\_types.csv** file, select **Load to Tables**, then **New Table**. Name the new table package\_types, specify file has column headers, and it’s a “,” separated file, and click **Load**.

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**Verify Table Creation:** Navigate back to the Table section of the Lakehouse and confirm the table was created. It may take a few minutes for the table to create as a spark session is being created to perform the operation.

**Note: It may take 60-90 seconds for the table to load due to background processes. Please be patient and do not try to create the table multiple times.**

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**Note: If at any point you see “Undefined” instead of a table name in your Lakehouse please refresh your browser. The Fabric UI has not registered the Delta table being created yet and a refresh should resolve the issue.**

This lab is now complete.