**GUIDED PROJECTS**

**Module 1: Python for Data Science**

**Case Study 1**:

A small retail store is looking to manage and optimize their inventory. They want to identify which products are in high demand. The dataset has daily sales data for each product.

**Dataset description**:

* **Order ID** - Each order receives its own Order ID that will not be duplicated.
* **Product** – The name of the product that has been sold.
* **Quantity Ordered** – The total item quantity ordered in the initial order.
* **Price Each** - The price of each product.
* **Order Date**- This is the date the customer is requesting the order be shipped.
* **Purchase Address** – Billing address.

**Approach:**

* Load the dataset into a Pandas DataFrame.
* Check for null values
* Check the datatypes of each column and convert to required types if needed.
* Use pandas to calculate key metrics such as
* Total sales for each product.
* Average sales for each product per day.
* Which city had highest number of sales?