MY SCHEDULE

THEME: SQL FUNDEMENTALS + PYTHON FUNDEMENTALS

WEEK 1

|  |  |  |
| --- | --- | --- |
| Day | SQL | PYTHON |
| 1 | * SELECT, FROM, WHERE on AdventureWorks | * Install Python, basic syntax |
| 2 | |  | | --- | |  |  |  | | --- | | * ORDER BY, LIMIT, DISTINCT | | * Variables, Data types, Lists, Loops |
| 3 | * JOINs (INNER, LEFT) | * Functions, conditionals, dictionaries |
| 4 | |  | | --- | |  |  |  | | --- | | * JOINs (RIGHT, FULL), filters | | |  | | --- | |  |  |  | | --- | | Intro to pandas & working with CSVs | |
| 5 | * GROUP BY, COUNT, SUM, HAVING | DataFrames, filtering, basic cleaning |
| 6 | Aggregates + nested queries | Practice mini ETL script (CSV → clean → save) |
| 7 | |  | | --- | |  |  |  | | --- | | Quiz + 5 use-case challenges | | Automate a report with pandas |

WEEK 2

|  |  |  |
| --- | --- | --- |
| Day | SQL | PYTHON |
| 1 | Subqueries, Aliases, CASE | Load data from SQL using pyodbc |
| 2 | Date filtering & formatting | Use pandas + SQL for basic pipeline |
| 3 | |  | | --- | |  |   Final SQL project: Revenue dashboard | Write a function to transform data |
| 4 | |  | | --- | |  |  |  | | --- | |  | | Clean and merge 2 CSVs |
| 5 |  | Write reusable ETL function |
| 6 |  | Simulate ETL with a mini pipeline |
| 7 |  | |  | | --- | |  |  |  | | --- | | Automate the ETL with scheduling (optional) | |

**🎯 Master Python Basics Through 5–7 Solid Mini Projects**

Build projects that focus on:

* Conditionals
* Loops
* Functions
* Lists and Dictionaries
* File I/O
* Exception Handling

**Examples:**

* To-do list app (with file saving)
* BMI calculator

1. Number guessing game
2. Bank account manager
3. Student grade tracker

SQL challenge questions to test my understanding

**🧩 1.**

Find the top 5 most expensive products and display their names and prices.

**🧩 2.**

Get a list of customers who have placed more than 3 orders. Display their names and the number of orders they’ve placed.

**🧩 3.**

Retrieve all products that have **never been ordered**.

**🧩 4.**

Show the total amount spent per customer. Only include customers who have spent more than $1000.

**🧩 5.**

List all unique cities where customers are located.

**🧩 6.**

Display all employees who **do not** have a manager.

**🧩 7.**

Return a list of orders that include **more than 5 items** (quantity-wise), showing the order ID and total quantity.

**🧩 8.**

Show all customers who haven’t placed any orders in the last 6 months.

**🧩 9.**

For each product category, return the total number of products and the total stock available.

**🧩 10.**

Find the average salary per job title, and only show job titles where the average salary is **above** the overall average salary across all jobs.