**1. Database Setup (setup\_database())**

When the program starts, it checks if the study\_log.db database exists.

If not, it creates a study\_log table to store study records.

**2. Main Menu (main())**

Displays options:

1. Log Study Session

2. Analyze Performance

3. Suggest Study Schedule

4. Exit

Waits for the user’s choice and calls the corresponding function.

**3. Logging a Study Session (track\_study())**

Prompts the user for subject, topic, time spent, difficulty, and score.

Stores the data in the SQLite database with the current date and time.

**4. Analyzing Performance (analyze\_performance())**

* Retrieves all study records from the database.
* Calculates and displays the average score for each subject

**5. Suggesting a Study Schedule (suggest\_study\_schedule())**

* Retrieves time spent and scores from the database.
* Uses Linear Regression to predict the expected score if the user studies for 90 minutes.
* If no data is available, it informs the user.

**6. Checking for a milestone (check\_badges())**

* The Beginner, Intermediate, Advanced or mastermind badges.
* Motivate the user to strive for more points and thus, work harder.

**7. Updating the study session (add\_study\_session())**

* Fetches the study session from the database.
* Displays the entire past activity of the user.

**6. Program Loop & Exit**

* The menu repeats until the user chooses Exit (5).
* If an invalid choice is entered, the program asks for a valid option.