**Q:Social media platform - Design a class to manage social media profiles, including creating posts, liking posts, and commenting on posts.**

**Approach to solve:**

1.Understand the problem statement clearly and find out the all the end points need to be created .

2.Figure out the proper datasturctures to manipulate the data in the api

3.Figure out the database design with proper list of tables and appropriate constraints to solve the problem.

**Pseudocode:**

**ADD\_STUDENT (HTTP POST method):**

Step 1: Extract the name and grades of the student from the JSON payload.

Step 2: If the data format is incorrect, display a message saying "Invalid request format."

Step 3: Create a database connection using the set\_connection() method. If the connection is created successfully, insert the extracted data into the "students" table and save the changes. If an exception is raised, roll back the transaction and display a message saying "Error while adding student."

Step 4: Close the database connection.

**CALCULATE\_AVERAGE (HTTP GET method):**

Step 1: Extract the name of the student from the URL parameter.

Step 2: Create a database connection using the set\_connection() method. If the connection is created successfully, retrieve the grades of the student from the "students" table. If the student is not found, return a message saying "Student not found." If an exception is raised during the retrieval process, return a message saying "Error while calculating average from the database."

Step 3: Calculate the average of the grades and return it in JSON format. If there are no grades found for the student, return a message saying "No grades found for student." If the grades field is not a list or cannot be decoded, return a message saying "Grades field is not a list" or "Error decoding grades JSON," respectively.

Step 4: Close the database connection.

**GENERATE\_REPORT (HTTP GET method):**

Step 1: Create a database connection using the set\_connection() method. If the connection is created successfully, retrieve all students from the "students" table. If no students are found, return a message saying "No students found."

Step 2: Iterate over the retrieved students, retrieve their grades from the "grades" table, calculate their average and add the details to the report.

Step 3: Return the report in JSON format.

Step 4: Close the database connection.