

# Student Management System

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## HOW TO RUN THE PROGRAM:

### 1. Download the Code:

- Download the Python script files (*main.py*, *student.py*, *course.py*, *person.py*) to a directory of your choice.

### 2. Run the Program:

- Open a new terminal or command prompt.
- Navigate to the directory where the script files are located.
- Run the program by executing the command: *python main.py* or *python3 main.py*
- To run the program, execute *python main.py* from the command line, and it will execute the *main()* function in *main.py*, which can then import and use the classes defined in the other files.

### 3. Customization:

You have the flexibility to customize various aspects of the program:

- Student Information: In *main.py*, you can modify the *student\_id* and *name* parameters when creating instances of the *Student* class, allowing you to input different student information.
- Course Information: Similarly in *main.py*, you can customize the *course\_code* and *name* parameters when creating instances of the *Course* class, enabling you to define distinct courses.
- Grade Assignment: The program allows you to assign grades (e.g., "A", "B") to students. You can modify the *grade* parameter in the *assign\_grade* method in *main.py* to assign different grades.

### 4. Executing the Program:

- Once the customization is complete, save the changes in the code.
- Return to the terminal or command prompt.
- Run the program again using the command: *python main.py* or *python3 main.py*
- Now the program will execute with your customized inputs and display information accordingly. Feel free to experiment with different student details, courses, and grades!

### 5. Running Unit Tests

To check that the Student Management System is working correctly, we've included unit tests. These tests verify different functionalities, such as enrolling students, assigning grades and generating reports.

**Prerequisites:**

1. Python Installed: Make sure that Python is installed.
2. pytest Package: Make sure pytest package is installed: *pip install pytest*

**1. Navigate to the Project Directory:**

- Open a terminal or command prompt and navigate to the directory where your project files are located.

**2. Run the Tests:**

- Execute the following command to run the unit tests:  
*pytest test\_student\_management\_system.py*

**3. View Test Results:**

- After running the tests, the terminal will display the test results.

**4. Interpreting Results:**

- If all tests pass, there will be a message indicating the number of tests passed.
- If there are failures, there will be a message indicating the number of tests that didn't pass.

**Thank You :)**