

## **Task: Student Information System Application Development**

### Task Description:

1. Design a user-friendly interface that allows the user to interact with the student information system.
2. Implement a login function that authenticates a user's credentials before they can access the system.
3. Create data structures (tables) to store student information including name, ID, enrolled courses, and grades.
4. Implement a 'Create' function that allows the user to add a new student to the system.
5. Implement a 'Read' function that allows the user to retrieve student information.
6. Implement an 'Update' function that allows the user to modify an existing student's information.
7. Implement a 'Delete' function that allows the user to remove a student from the system.
8. Add a 'Search' function that allows the user to search for specific students based on different criteria (e.g. name, ID, course, etc.).
9. Ensure your application can handle errors in an elegant way, showing appropriate error messages when things go wrong.
10. Protect the system by implementing appropriate security measures (e.g., password hashing and salting, data validation to prevent SQL injections, etc.).