

Project title: **An-Najah Rank**

Academic Year: 2023/2024

Project Type: Software

Department Name: Computer Engineering Department

Supervisor Name: **Dr. Samer Arandi**

Group Members: 1- **Momen Odeh** 2- **Noor Aldeen AbuShehadeh**

Project's Abstract:

One of the most important skills for any programmer is problem-solving skills, and there are many websites that can be used to train on these skills, such as HackerRank, Codeforces, LeetCode, etc.

At An-Najah National University, professors always strive to improve students' problem-solving skills in many subjects such as computer programming, data structures, algorithms, and object-oriented programming by assigning problem-solving assignments and quizzes using problem-solving websites. However, they face several challenges in using these websites, such as difficulty tracking student submissions, an inability to directly identify code similarities among students' submissions, and the inability to manually mark incorrect answers.

We will implement this project by building a web application with React JS as the frontend and Flask Python as the backend, and we will use Docker for containerizing the application.

Features of An-Najah Rank:

- Registration and login for both students and professors on the web application.
- Professors can create new courses and enroll students in them.
- Professors can add assignments and quizzes to their courses.
- Professors can view a list of students who have submitted assignments, their grades, and the similarity of their submissions. They can also review the submissions and manually mark incorrect cases.
- Students can access their courses, view assignments and quizzes, and start solving them by writing code in their preferred programming language, such as C, C++, Java, Python, or JavaScript. They can then run the code to check if it passes or fails test cases.
- Students will receive notifications when the professor adds a new assignment.