King Fahd University of Petroleum & Minerals

College of Computer Sciences and Engineering

Information and Computer Science Department

SWE 206: Introduction to Software Engineering (2-3-3)

First Semester 2021-2022 (211)

Lab Project

Project Description:

A team at KFUPM News is assigned to keep track of the undergraduate students participating in external CTFs and Hackathons. They keep track of the name, the website, the date of a competition. For each competition they maintain a list of the KFUPM students participating. The student information they keep track of is the student ID, name, major, his ranking in the competition and if the competition is team based, the team internal number, and the team's name in the competition.

Right now, they keep track of those competitions using an excel file, a sample of this file is attached, contains the information of the competition, and the student participating.

As the number of competitions and student participating increases, their system started taking longer than what it used to take, and they fell behind updating the winners and congratulate them.

To boost the News team productivity and simplify their work, they recruited your team to build them a java application allows them to do the following:
- a user interface that shows all competitions
- the ability to track a new competition
- a page for each competition that shows the students/team participating in that competition.
- browse the website of the competition within your application
- add a team/a student to a competition
- if a competition is duo and the News team didn't update the winners, the application shows a notification once its open.
- Open the default email app and prepare a message to send to a student
    - To: the email of the student / students in case it was a team competition. Following KFUPM the email for each student is "s[student ID]@kfupm.edu.sa".
    - Subject: Congratulation on achieving [their ranking] place in [the competition name]
    - The body of the message is attached as a text file.

- Keep updating their excel file as they are using it for data illustration

Deliverables details:

The project consists of three phases Requirement, Design, and implementation followed by a demo. The deliverables and the deadline of each phase is the following

	Deliverables	Deadline	Weight
Phase One	• Detailed requirement list ○ Functional requirement list ○ Non-Functional requirement list • Use Case Diagram	8th/November/2021	20%
Phase Two	• Class Diagram of the system • Activity Diagram for the main operations from the class diagram • Sequence Diagram of the main flows of the system	22nd/November/2021	35%
Phase Three	The implemented Code	12/December/2021	30%
Demo	15 min demos with the instructor	Lab of Week 15.	15%

The submission for each phase should be a report that has the following:
- Cover page has the course name, lab number, lab topic, group section and number, students' names, and IDs.
- Page listing each member contributed tasks.
- Followed by pages of the deliverable of the phase