



Daffodil
International
University

Department of Computing and Information System

Midterm Assignment: Summer Semester 2021

Course Code: CIS 321

Course Title: Advanced Object-Oriented Programming

Title: **Vaccination System**

Various studies over the last several years have placed human error as either the most frequent or second most frequent causes of server downtime. One of the more high-profile downtime causes, cyberattacks usually make big headlines when they occur. Sometimes equipment just breaks. It's an unpleasant truth, but data center physical infrastructure is always vulnerable to failure of some kind, making it one of the leading causes of downtime. A management system will run properly if server works smoothly. A booster dose is an extra administration of a vaccine after an earlier (primer) dose. AstraZeneca, Sinovac, Pfizer-BioNTech, Sputnik V etc. are some covid vaccine which are used mitigate the COVID-19. Recently, COVID-19 situation has drastically increased in our country due to the Delta (Indian) variant. In future, it will be needed to give booster dose among the mass people. In that case the server management system must be ensured properly along with the Vaccine Management System. The department of Computing and Information System wants to develop a booster dose vaccine management system apps or java-based application along with backup server configuration if server fail. Now, develop a booster dose vaccine management system apps or java-based software project according to the following criteria where AstraZeneca, Sinovac, Pfizer-BioNTech, Sputnik etc. vaccine is available in your hands.

Task 1: (Theory) [35 marks]

[Instructions: Give clear and concise answers for every subtask. Use examples if necessary]

Subtask 1: [25 marks]

- A. Draw the ER diagram of booster dose vaccine management system. **[10]**
- B. Give a backup proposal server system if failure or some attacks occur in server. **[10]**
- C. Flow chart of your overall software or apps. **[5]**

Subtask 2: [10 marks]

- A. Logically, Evaluate this project for the usefulness of our present situation [5]
- B. Describe the working principle of your software or apps. [5]

Task 2: (Lab) [25 marks]

- **Subtask 1: [17 marks]**

- A. Partially implement the given scenario by java programming language/ android apps having all the mentioned features. By implementation and running the project, upload all necessary code along of their related databased file. You are also advised to attached a snapshot of your project along with outputs. [17]

- **Subtask 2: [8 marks]**

- A. Describe what challenges while implementation this project. [3]
- B. Make a 5 min video and attach the link for this assignment to show the working procedure of your project [5]

General Instructions:

- ❖ **You have to submit the assignment in .docx or .pdf format (name it with your ID, such as 183-16-678.docx), **Zip the file if any additional documents need.****
- ❖ Submit the assignment **in the Smart Edu LMS Assignment section**, the option of submission will be available there very soon.
- ❖ Marks will be deducted accordingly if any plagiarism of work is provided.