



Mid-Term Assignment

Course Name: Object Oriented Software Engineering

Submitted By:

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BS (SE-8) Section: A

Submitted To:

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Dated: 19th April 2020

**Department of Computer Science,
IQRA National University, Peshawar Pakistan**

Object Oriented Software Engineering

SE - 05

MIDTERM ASSIGNMENT

Question #1 (20 Marks)

Consider your University Attendance Marking System in a class. Keeping in mind all the activities, both the start and end of the class, come up with the following:

1. A Use Case Diagram
2. A Textual Use Case Diagram

Question #2 (10 Marks)

You have to make a new Biometric Attendance System for your university. You are being assigned this task on April 21st, 2020 and you have to submit the whole system on 15th June. Come up with schedule for this whole project in the form of Gantt Chart and Pert Chart.

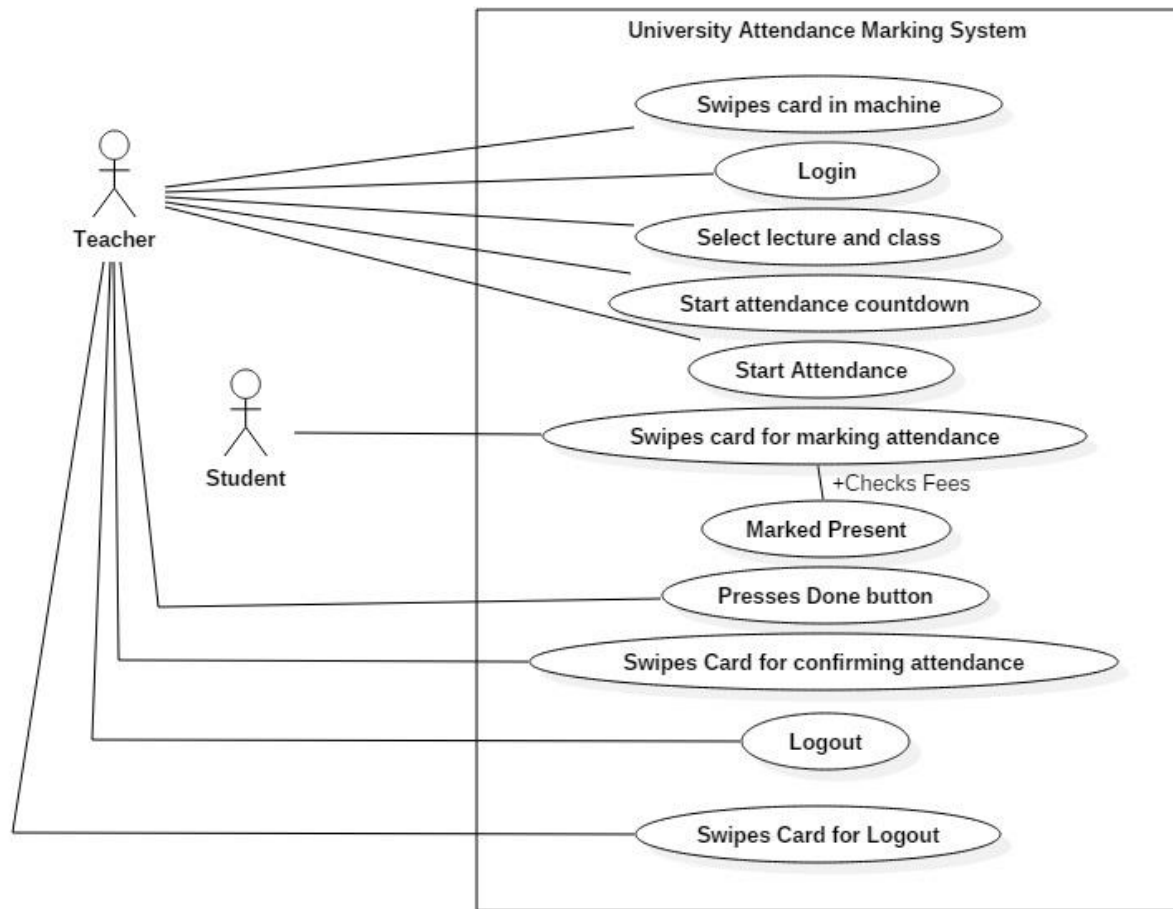
Instructions for Assignment Submission

1. Write your names and Ids at the top of each paper of answer sheet.
2. Scan / Take Photo of each paper and save each photo with a number. E.g. photo of page 1 of answer sheet be saved with name 1.jpg, then 2.jpg and so on.
3. Put all answer photos in a folder, name the folder with subject name.
4. Zip the folder and upload.

Question # 1 Part (1)

Answer:

UseCase Diagram of Attendance Marking System in class:



Question # 1 Part (2)

Answer:

Textual Use Case Diagram of Attendance Marking System:

1. **Name:** Marking Attendance
2. **Participating actors:** Teachers, Student
3. **Entry Condition:**
 - Teacher should have a valid card to login into attendance machine.
 - Teacher should have started the attendance countdown.
 - Students should have a valid card to mark their attendance.
 - Students should have paid their fees in order to mark present.
4. **Exit Condition:** Students have successfully marked their attendance.
5. **Flow of events:**
 - Teacher swipes his/her card in order to login into the attendance machine.
 - Machine check that whether the teacher card is valid or not and after that the teacher is login into the system.
 - Teacher selects lecture, class and section of which he wants to start attendance.
 - Teacher swipes the card in order to start attendance countdown.
 - Students swipe there card for marking their attendance after the countdown is finished.
 - Machine check that whether the student card is valid or not.
 - After that the machine checks that whether the student has paid his fees or not.
 - After confirming the student is marked present.
 - Teacher press the done button after all students have marked attendance.
 - Teacher swipes his/her card for confirming the attendance.
 - Teacher then press logout button on the system.
 - Teacher then swipes card in order to confirm logout.

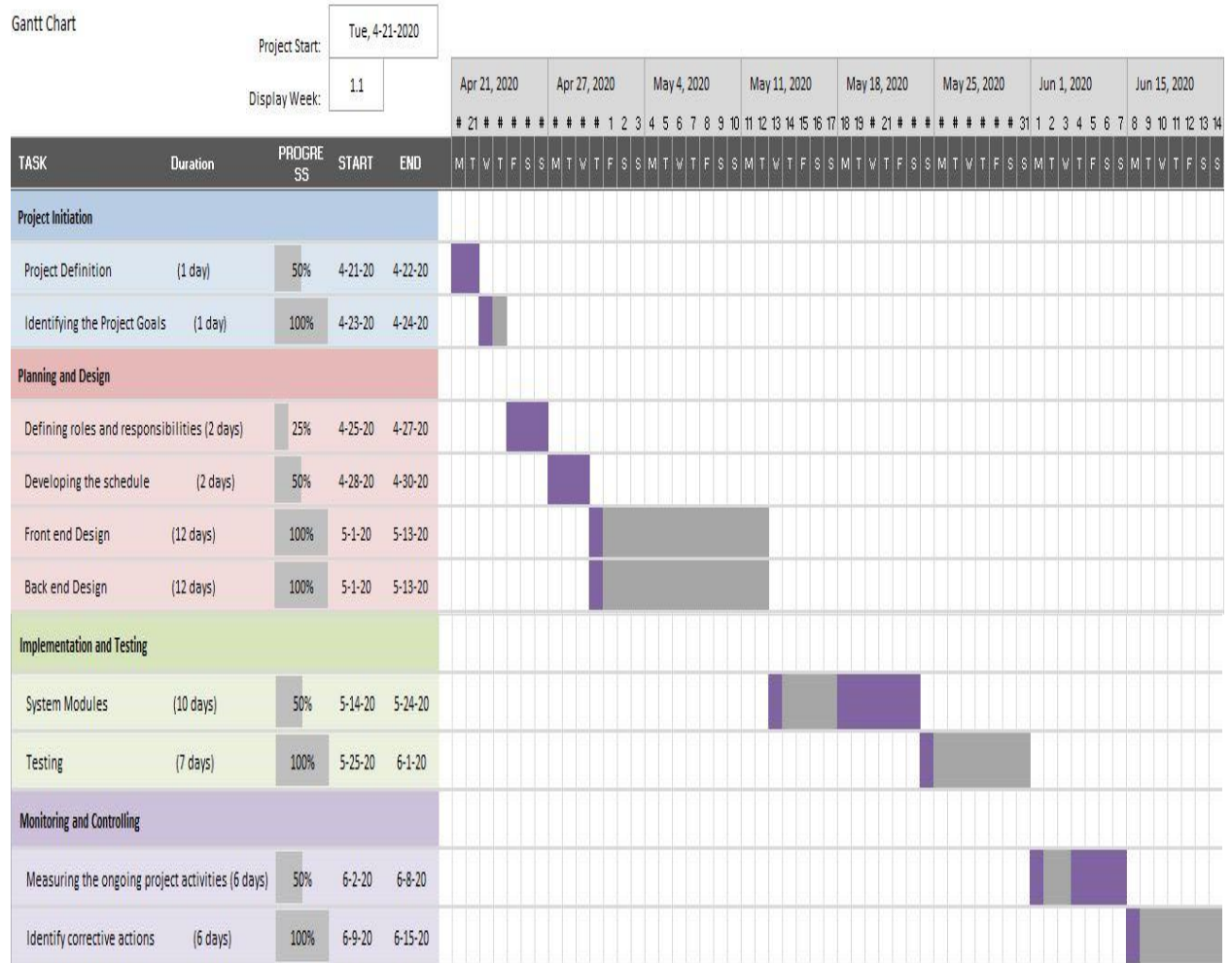
Special Requirements: Teacher and Student must have a valid university card.

Question # 2
Answer:

Gantt chart for Biometric Attendance System:

Biometric Attendance System

Gantt Chart



Pert chart for Biometric Attendance System:

