## National University of Computer and Emerging Sciences, Lahore Campus

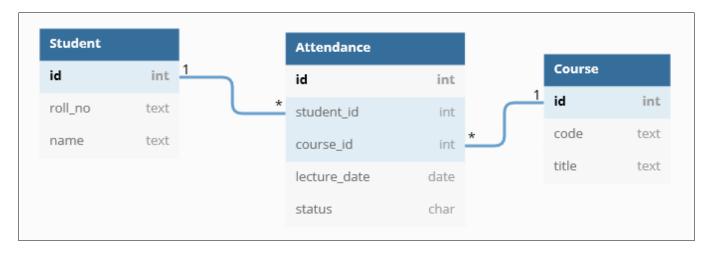
SE STUDIES OF SECOND	Course Name:	Software for M
	Degree Program:	BS(CS)
	Exam Duration:	60 Minutes
	Paper Date:	09 - May - 2022
WILLIA & EMERGING	Section:	ALL

Course Name:	Software for Mobile Devices	Course Code:	CS-4039
<b>Degree Program:</b>	BS(CS)	Semester:	Spring 2022
Exam Duration:	60 Minutes	Total Marks:	25
Paper Date:	09 - May - 2022	Weight:	12.5
Section:	ALL	Page(s):	6
Exam Type:	Midterm-II		

Stude	ent Name:	 Roll No	Section:

Instruction/Notes: This exam is open book and open notes. While writing code, make best effort to write correct and relevant code only. Minor syntactic errors are acceptable and will be ignored during marking but overall concept and approach must be correct. Also, note that Q2 is different for different sections.

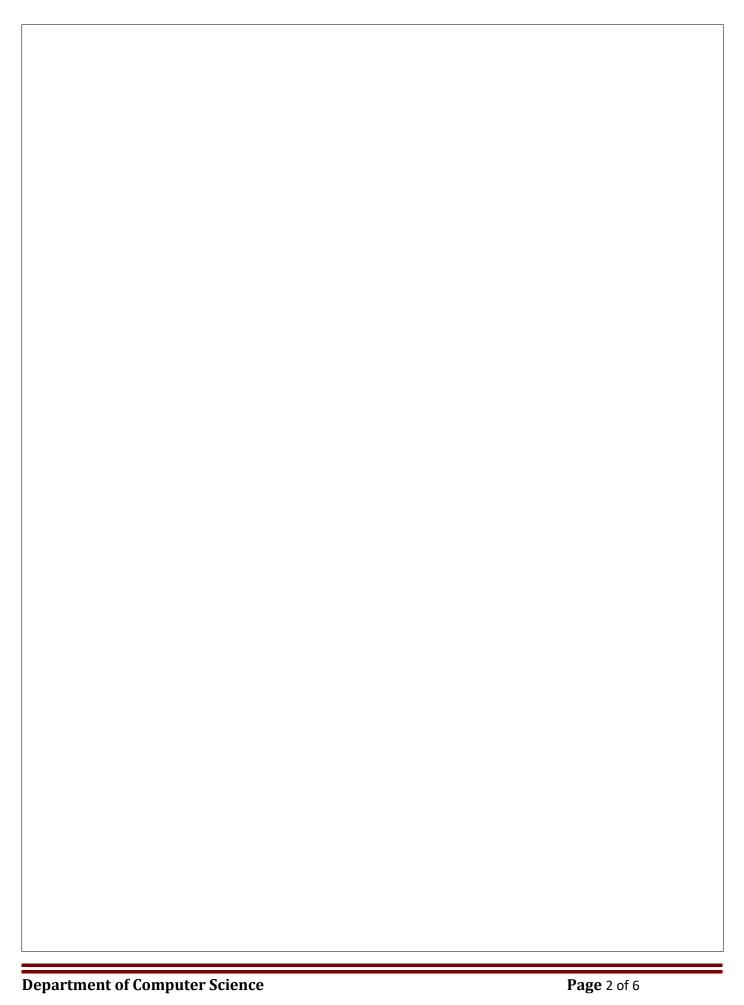
Question 1 20 points

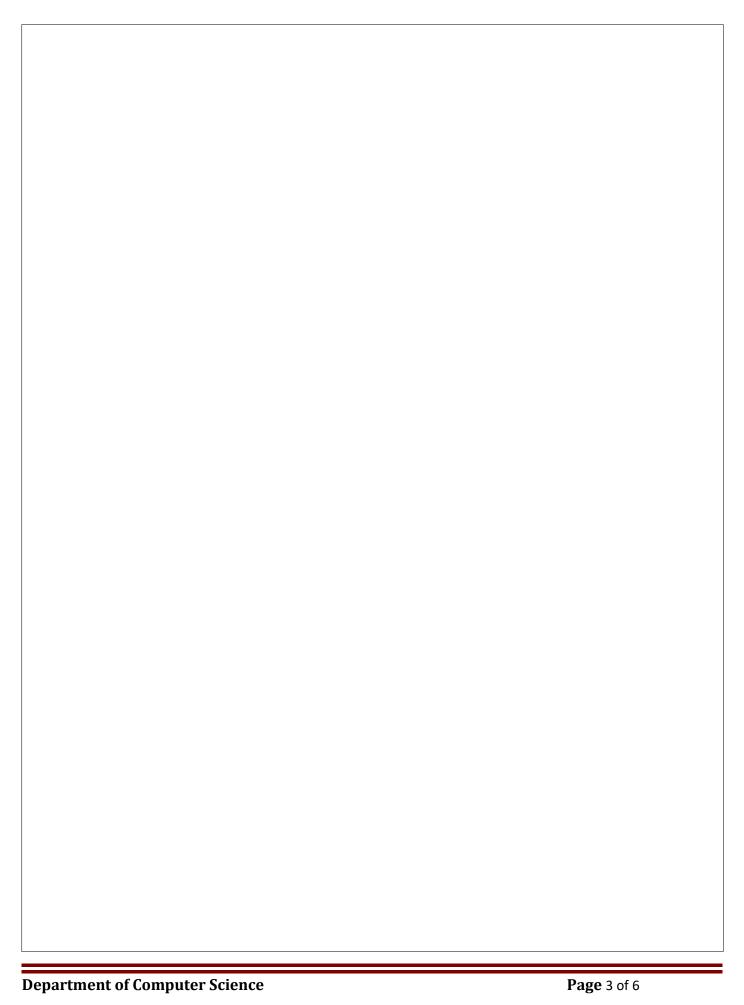


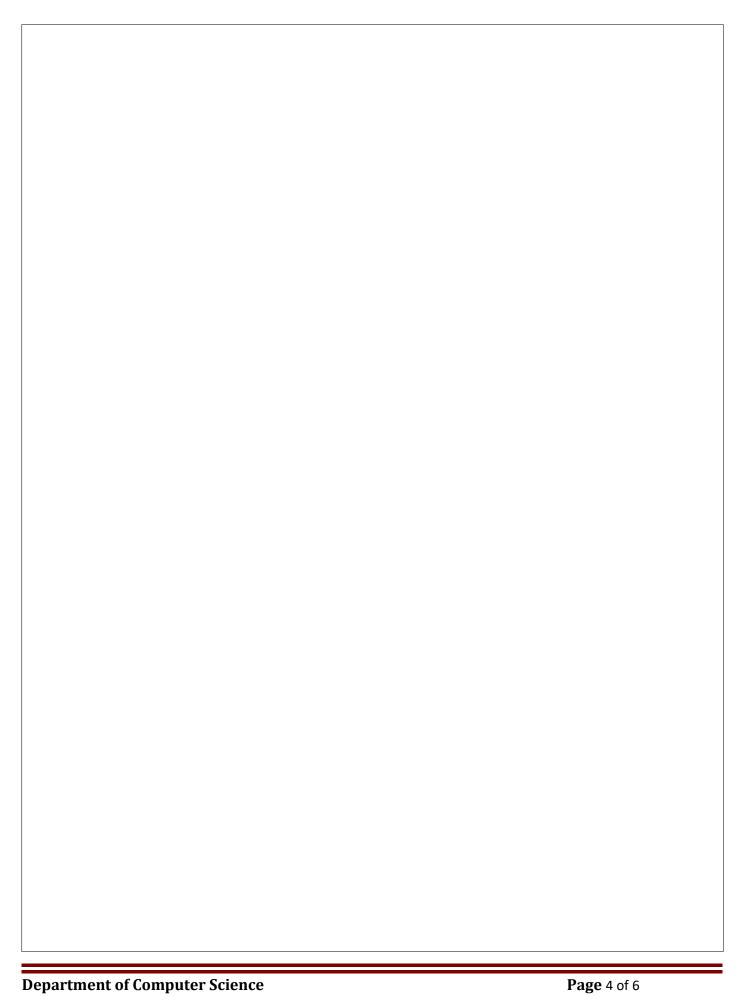
Consider the above schema for database of an application to record attendance of students. Suppose we are implementing an Android Activity that is tasked to populate attendance data from a CSV file stored on a particular path on device. Sample CSV data for SMD (CS-4039) course is shown below, where the first line is a header line and contains a list of dates (separated by semicolon) on which lectures were conducted, while the rest of lines contains attendance status for each of the students for each lecture day:

```
Roll No;Name;13-sep-2021;15-sep-2021;20-sep-2021;22-sep-2021;27-sep-2021
14L-4521;Anas;P;P;A;A;P
15L-4177; Muhammad Abdullah; P; P; P; P; P
15L-4284;Hamza Ali;P;P;P;P;P
15L-4376;Hamza Jawad;P;P;P;P;P
16L-4256;Ayesha Waheed;P;P;P;P;P
16L-4275;Hassaan Sohail;P;P;P;P;A
16L-4326;Umer Aziz;P;P;P;A;P
```

Given that the user supplies csv file path, course code and course title in three text fields on the activity, write all necessary code to read data from file and load it into the database. Suppose that this operation is activated on a button click, you may write code for its event handler only, when writing activity code and there is no need to mention layout and other irrelevant aspects.







1. Suppose that you are starting a service in an activity as follows:

(2.5)

Intent service = new Intent(context, MyService.class);
startService(service);

where **MyService** accesses a remote server via an internet connection. If the Activity is showing an animation that indicates some kind of progress, what issue might you encounter and how could you address it?

2. What is an Intent? Can it be used to provide data to a ContentProvider? Why or why not? (2.5)

1. What is the main difference in terms of implementation between downloading and uploading data from a remote web-based source? (2.5)

2. What is the role of **Thread** and **Handler** in performing a web request from a client Android device? (2.5)