National University of Computer and Emerging Sciences
Lahore Campus

Software for Mobile Devices (CS4039)

Date: April 3rd 2024
Course Instructor(s)
Mr. Waqas Ali

Sessional-II Exam

Total Time (Hrs):	1
Total Marks:	30
Total Questions:	2

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Roll No   Section   Student Signature

NOTE: This paper is open book and open notes. Cell Phones are not allowed.
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Q1: Attempt all the parts.   **[3x5 marks]**

a) Differentiate between **ItemView** and **RecyclerView** in terms of their **implementation** along with some **pros** and **cons** as well.

b) Differentiate between *onCreateView()* and *onViewCreated()* callback functions with the help of an example during Fragment's Lifecycle.

c) Differentiate LinearLayoutManager and GridLayoutManager. Why these are necessary for RecyclerView.

Q2: Suppose you are going to develop an application to store customers information. There are two activities of name "**ONE**" and "**TWO**", "**ONE**" has a form with following information and "**TWO**" will have recycler view to show all customers. Take Full Name, Address, Item purchased (e.g. **Hp Laptop**), Price, CNIC from user on first activity.

As you all knows that shared Preferences stores key-value pairs in its file. So, you have to decide the keys very carefully, otherwise if you will choose same keys for multiple records then it will override the existing record and you will be able to fetch only single record. Suppose you have used following ids for views in your design file of first activity along with SAVE button:

• etFullName	• etAddress	• etItemPurchased
• etPrice	• etCnic	• btnSave

I want you to implement following functionalities:

1. Don't write XML for first activity. At Backend when user will click on the SAVE button a function called of name "saveCustomer", implement this function to add the entered record in a file of name "**Customers**" using sharedPreferences. **[5 marks]**

2. Write java code for "**TWO**" activity along with custom Adapter and ViewHolder for above scenario. Assume that java model class and custom design of single customer is already implemented having ids provided above. Your code will fetch all records from "**Customers**" file in "TWO.java" and send them to adapter which will show them on recyclerview. **[10 marks]**