National University of Computer and Emerging Sciences, Lahore Campus

	Course:	**Software for Mobile Devices**	**Course Code:**	**CS440**
	Program:	**BS(Computer Science)**	**Semester:**	**Fall 2019**
	Out Date:	**Sunday-13th September 2019**	**Total Marks:**	**140**
	Due Date:	**Sunday-23rd September 2019**	**Weight:**	
	Section	**CS-C**	**Page(s):**	**1**
	Assignment:	**3(Data Storage)**		

Instructions:

- Use Java and XML language in order to attempt this assignment in Android Studio. **DO NOT** use any templates
- Plagiarism of code will not be tolerated
- Create a **private** GitHub repository on your personal GitHub account with the name: **Rollnumber-UIDesign** ,e.g, [17L-4998-UIDesign]
- Upload the link to your GitHub Repository to your Google Classroom
- In case of late submission, 25% marks will be deducted from the total score

Upload the assignment through Git, preferably using GitBash. Marks will be awarded for the submission of assignment through Git repositories. Email submissions will not be considered.

Q1. You are required to create an application that manages contacts. You will be required to do the following:

1. Create a sign in screen that takes username and password.
    a. Screen should have a "remember me" check box that stores the user using shared preferences. If the box is checked, the user should land on the home page on next visit. If it is unchecked, the user should be signed out upon app close. (25)

2. Read the contacts from your phone using content providers and permissions (20)
3. Store the contacts into a local database (Room/ORM Lite) (30)
4. Make sure that the contacts class contains: (10)
    a. Name
    b. Number
    c. Email (if any contact doesn't have an email saved, make sure to have a default "Not available" stored instead)
    d. Image (if any contact does not have an image saved in your phone, make sure to use a dummy image)
5. Display the list of contacts using list view and custom adapters (20)
    a. The list should display the image and name only (5)
    b. Clicking on the name should open a page with the contact profile (10)
6. Allow add contact and delete functionality that adds and removes contacts from your local db (20)

You should only utilize Room or ORMLite to create your local Database.

Tutorials:
- https://www.androhub.com/android-read-contacts-using-content-provider/
- https://developer.android.com/training/contacts-provider/retrieve-names