

**061006T4ICT**

**ICT TECHNICIAN LEVEL 6**

**IT/OS/ICT/CR/11/6**

**MOBILE APPLICATION DEVELOPMENT**

**NOV/DEC 2023**



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION  
COUNCIL (TVET CDACC)**

**PRACTICAL ASSESSMENT**

**Time: 3 Hours**

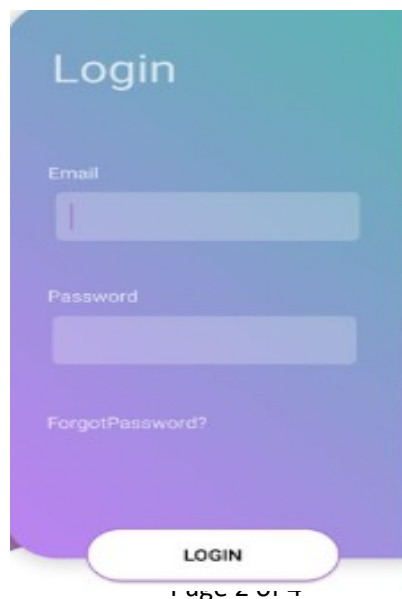
**INSTRUCTIONS TO CANDIDATE**

1. In this assessment you will be required to perform 2 tasks.  
TASK 1 carry 25 Marks  
TASK 2. carry 25 Marks
2. You are given **10 minutes** to read through the tasks and confirm the availability of the resources
3. The assessor will record your performance at critical points using audio-visual means

**Task 1: 25 Marks**

You have been provided with a functional machine installed with Android studio and Java JDK. In this task, you are required to design the user interface (UI) for the login screen of an e-learning mobile application. The design should be clear, user-friendly and based on the instructions provided.

1. Create a folder on your desktop and name it *CDACC Practical* (1 Mark)
2.
  - i) Create a new android studio project and save it as *e-learning platform*. (1 Mark)
  - ii) Specify the minimum SDK version to API23: Android 6.0(Marshmallow) (1 Mark)
  - iii) Set the project location to the *CDACC Practical* folder you created on your desktop. (1 Mark)Screenshot the project information above, save the screenshot as *project-infor* in the *CDACC Practical* folder
3. Select a blank activity and name it *login screen* (2 Marks)
4. Add two text views that will enable users to enter their email as the user name and a password. Add a login button so that the screen appears as below: (4 Marks)



5. Set the following properties for the text views and login button (9 Marks)
  - i) The layout\_width - *match\_parent*
  - ii) The layout\_height - *wrap\_content*
  - iii) The id:-
    - emailtxt for the email text view
    - Passtxt for the password textview
    - Loginbtn for the login button
6. On the resources folder, create another activity to redirect a user when they login with valid details. Name it *user\_screen*. (2 Marks)
7. Add a label on the *user\_screen* activity with the message '***You have successfully logged in***' (2 Marks)
8. Open the *login\_screen* activity xml file and copy the intent filter tag. Paste it on the *user\_screen* activity xml file and save the changes (2 Marks)

## Task 2: 25 Marks

This task requires you to develop a program for the *login\_screen* and *user\_screen* activities having successfully designed them.

9. Access the Main\_Activity.java file and initialize all the variables (6 Marks)
10. Link the initialized elements to the ones in the XML file (3 Marks)
11. Set the requirements for the password as follows: (3 Marks)
  - Minimum of 8 characters
  - Must have at least one uppercase letter
  - Must have at least one special character
12. Link the *user\_screen* and the *login\_screen* activities so that when a user enters a valid email and password, he/she is redirected to the *user\_screen* (6 Marks)

13. Create a debuggable APK that can be installed and run in an android device  
(3 Marks)
14. Burn the APK , project and files in the *CDACC practical folder* to a CD/DVD  
(1 Mark)
15. Print the following files: (3 Marks)
  - i. *Main\_activity* file
  - ii. *Login\_screen* xml file
  - iii. *Project\_infor* screenshot and a screenshot of the login screen as viewed on the emulator

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