Mid-TERM EXAM (TEST-01) – SEC-002

DEADLINE: FROM 12.30 pm Wednesday 3rd March, TO 12.30 pm Thursday 4th March 2021

WEIGHT/MARKS:25%/100

Be sure to read the following general instructions carefully:

- This lab test **must be completed individually** by all the students.
- Read the project **naming and submission guidelines** carefully.
- After completion and testing, **submit the project through the Mid-Term Exam link on e-Centennial**.
- **Only the .zip file is accepted (not .rar etc.) and only one zip file and one upload is allowed.**

Android Project Naming rules:

You **must** name your Android Studio project at the start of the Android Studio, according to the following rule:
Yourfullname_COMP304_002 _Test01

Example: **JohnSmith_COMP304_002_ Test01**

Submission Rules: [Only the .zip file is accepted and only one zip file and only one upload is allowed]

Archive your project in a **zip file** named according to the following rule:
Yourfullname_ COMP304_002_Test01.zip
Example: **JohnSmith_COMP304_002_Test01.zip**

Upload the project through the **Mid-Term Exam link** on **eCentennial**.

NOTE: IF SOMEONE FAILS TO UPLOAD THE TEST01 ON OR BEFORE THE DEADLINE, THEN IT WILL NOT CONSIDERED. AND IF AT ALL, IT IS CONSIDERED DUE TO VALID REASONS/EXTREME SITUATION, THEN THERE WILL BE 50% DEDUCTION.

IDE for the Test 01:

a) Android Studio Version should be – 4.1.2
b) Android Studio gradle pug-in should be – 4.1.2
c) Gradle Scripts version should be – 6.5.1
d) Programming Language – Java SE7 onwards

Exercise #1

Create an Android app that displays the stocks of several high-tech companies.
   a) The first activity – **mainactivity** allows the user to select the stocks from a set of check boxes as shown in the picture below. **[5]**

The values of stocks for each company are stored as string arrays in strings.xml. You can download the resource file from eCentennial.
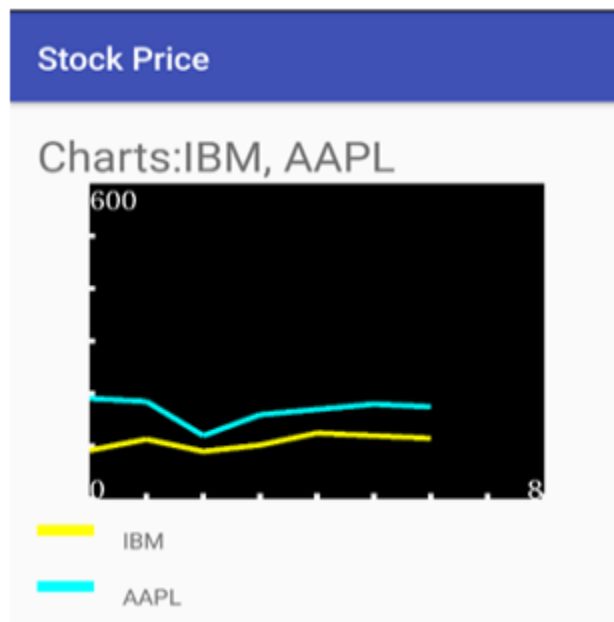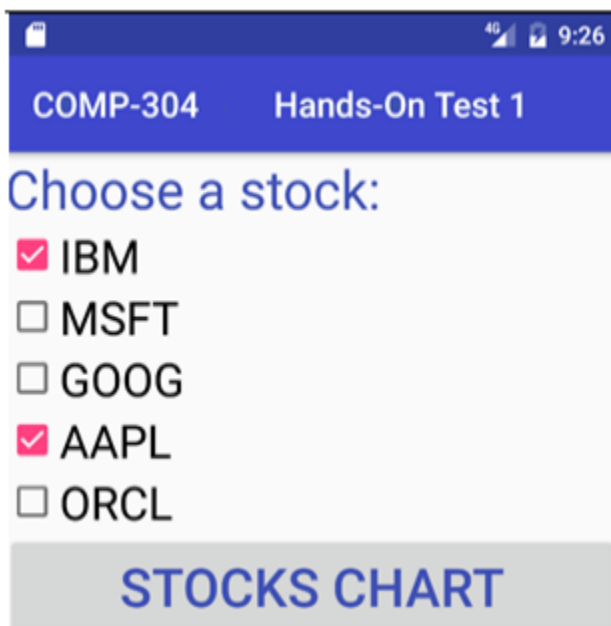
   b) After the selection, the user should click on **STOCKS CHART** button to display the charts in a second activity. **[10]**
   c) Get the symbols of selected stocks in the event handler method of the button STOCKS CHART, and pass them to the second. **[10]**

activity using an intent object.

   d) The second activity should draw the charts for the selected stocks.
      Read stock values for the selected stocks from file strings.xml. (define the values in there) Use the following values (though they don't reflect the exact stock values.) **[5]**

IBM: 91, 95, 83, 115, 102   **GOOG**: 111, 126, 101, 130, 122   **AAPL**: 105, 125, 114, 120, 110
MSFT: 92,112, 127, 103, 117   **ORCL:** 100, 107, 118, 121, 99

   e) Use an image view as a drawing canvas. Use drawLine method to draw the charts. The x coordinate will be incremented by 100 pixels and the y coordinate should be the stock values. Use different colors for charts and provide a simple legend (counts for user friendliness). Logos are also provided on e-centennial if you want to use them in the legends. **[20]**

Evaluation:

Functionality:	
Main activity (**UI** and **event handling**)	30%
Second activity (**UI**, **event handling, drawing**)	15%, 20%, 15%
Using *strings.xml* to define the resources	10%
UI friendliness:	10%
Total:	100%