

# **Tutorial Letter 102/3/2021**

## **Interactive Programming ICT2612**

### **Semester 1**

### **School of Computing**

#### **IMPORTANT INFORMATION**

This tutorial letter contains important information about assignment 1.

BARCODE



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# 1 INTRODUCTION

Dear Student

Welcome to ICT2612.

TUT102 contains information about your first practical assignment. First work through learning units 0 and 1 which explains in detail how to download and install the software. Never leave a practical assignment to the last day. Start early and always upload before the due dates to ensure you have successfully uploaded in time. NO late assignments will be accepted.

## 1.1 Due dates

Semester 1: **15 February 2021**

Unique number: **521566**

The purpose of this assignment is to confirm that:

- you have installed Java JDK
- you have created a small application (app)
- you have compiled, run and test the app in either the Eclipse Emulator (virtual environment), BlueStacks or on an Android device.
- you can submit the ZIP file online via myUNISA.

Read the instructions very carefully and take care that you submit the correct documents and files. A rubric (marking schema) is attached to this document. The marker will use this rubric to assess your assignment.

# 2 OVERVIEW OF ASSIGNMENT

## 2.1 Part 1

Detailed steps on how to install the software can be found in your lesson tool. To test that you have installed the Java JDK, Eclipse and can create, compile and run a small app.

Create a small application, call it MyCalc or something similar. **Add a comment in your MainActivity.java indicating your student number.**

The purpose is a large cities provide car wash apps where you can purchase packages for your vehicle.

**Specification for this app: One Screen Layout**

1. The opening screen requests the type of car wash package (exterior only and exterior with interior vacuum) you would like to purchase.
2. The user selects which type of car wash- exterior only or exterior with interior vacuum services. The car wash app charges R65.50 for an exterior wash and R120.99 for an exterior wash with an interior vacuum for a package of 12 or more car washes. If you select less than 12 washes, the charge is R67.50 for an exterior wash or R123.99 for an exterior with interior vacuum.
3. When the CALCULATE Package button is selected, the total price is displayed for the number of car washes purchased.

See the sketch below:

|  |
|--|
| Car wash   |
| <b>Car Wash Packages</b><br>Buy 12+ washes for a discount                                  |
| Enter the number of washes   |
| <input type="radio"/> Exterior Only<br><input type="radio"/> Exterior with interior Vacuum |
| <b>CALCULATE PACKAGE</b>   |
| Insert a picture   |

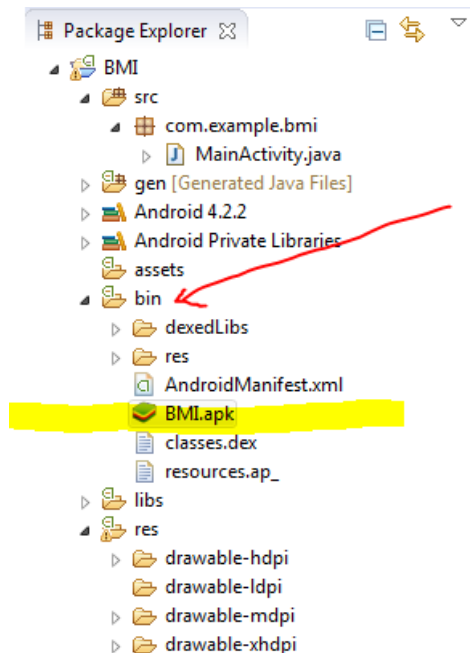
- Use a customized launcher icon (ic\_launcher\_carwash.png) and display the same icon in the action bar using the Theme.AppCompat.Light theme.
- Display an ImageView control (Carwash.png)
- Only one RadioButton control can be selected.

- A toast message should pop when the user enters less than 12 watches that they must buy 12 washes to receive a discount

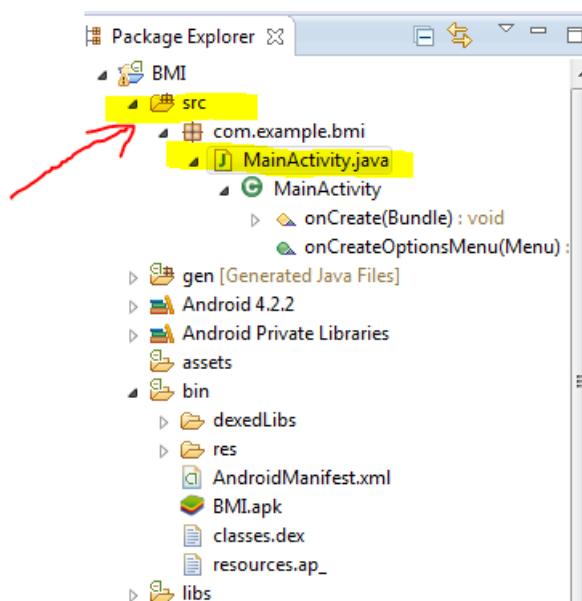
## 2.2 Part 2 Getting it ready to submit

Create a folder on your desktop, call it *yourstudentnumber a1*. Copy into this folder the following documents and files:

The **.apk** file of the MyCalc program. You will find the .apk file in the bin folder of Eclipse.



The **.java** file(s) of the MyMarks program. You will find the .java file(s) in the src folder of Eclipse. For the purpose of this exercise there is only one .java file, namely MainActivity.java. (Take care that you COPY and not MOVE it!!!!!!).

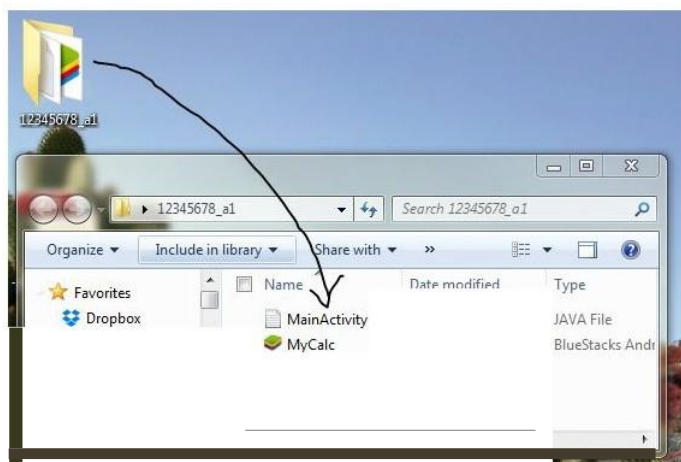


## MyCalc

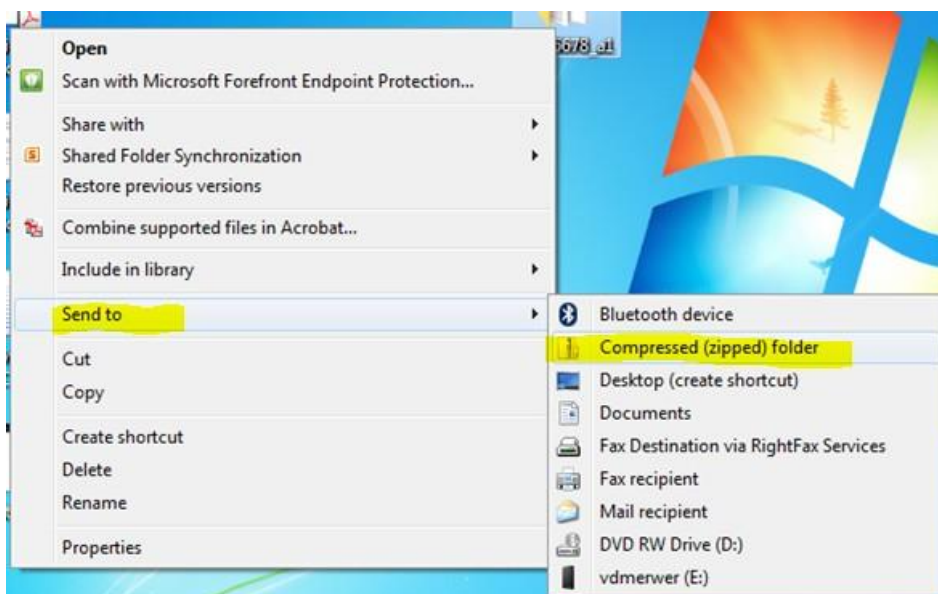
```

.. src
com.example.calc
[!] MainActivity.java
  ▾ gen [Generated Java Files]
  ▾ a\ Android 4.2.2
  ▾ !!!\ Android Private Libraries
assets
.. bin
  ▾ L3 dexed libs
  ▾ (3 res
[g] AndroidManifest.xml classes.dex
..... MyCalc.apk' resources.ap_
  ▾ libs
  ▾ res
[g] AndroidManifest.xml
ic_launcher-web.png proguard-project.txt
project.properties

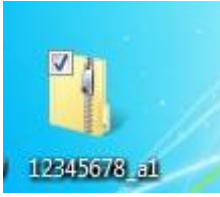
```



Close this folder. Click right on the folder, select **Send to Compressed ZIP folder**:



You will now have, on your desktop a ZIP version of your folder.



NOTE: Check that it ZIPPED the files correctly. Double click on the ZIPPED folder and check that the folder with the 2 files are there and that you can open and extract them. If you can't open and see them, then I will not be able to open and see them and you will not get any marks for the assignment.

### 2.3 Part 3 Submit online

You are now ready to submit it online.

Logon to myUNISA, select your module code: ICT2612

Select Assignments

Select Assignment 01.

Select the option (link) to upload your assignment.

Follow the steps and select the ZIP folder (that is on your desktop) and upload it.

You are now DONE with assignment 01.

**NB Make sure to upload only ones your last and final version!!!**

#### Notes

1. Always keep copies of your work. Keep it on your hard disk, but also keep an offsite copy.
2. Before you upload, check that everything is there. We receive hundreds of assignments, we cannot contact you individually to ask you to upload it or request a copy of your work.
3. Make sure that you submit it **on or before the due date**. We make a "dump" of all the received assignments the day after the due date and these received assignments are forward to the markers. If they don't have it, they can't mark it.
4. Do not submit the files, folders, ZIP files etc onto the dropbox. Only the assignments received via the official UNISA online assignment system can be marked and marks allocated. You may use the drop- box to make copies of your work, but the markers do not have access to your dropbox on myUNISA - thus, if you don't submit it as instructed you WILL receive 0% for the assignment.

## Rubric

An example of the Rubric that we will use to assess your assignment against.

| Student                                    |             |              |   |
|--|-------------|--------------|---|
| Criteria                                   | Total marks | Student mark | Comments  |
| Submission                                 |             |              |   |
| Assignment in ZIP format                   | 2           |              | <i>The assignment received via myUNISA must be in the correct ZIP format.</i>   |
| <b>Inside ZIP:</b>                         |             |              |   |
| .apk file                                  | 1           |              |   |
| .java files                                | 1           |              |   |
| MyCalc Compiles                            | 2           |              | <i>The application must compile. We test it in BlueStacks and/or Android device.</i>  |
| <b>Layout:</b>                             |             |              |   |
| 1 x text field with student number         | 1           |              | <i>The text field must contain YOUR student number. The user must not be able to update it.</i>                             |
| 2 x input                                  | 1           |              |   |
| Hint fields used in input fields           | 1           |              | <i>Four input fields with hints that disappear as soon as the user enters a value. Only numeric values must be accepted</i> |
| 1 x text field to display an error message | 2           |              |   |
| 1 x button                                 | 1           |              | <i>Text field that the user cannot update that displays a suitable message should one of the values be incorrect.</i>       |
| 1 x text field to display the final mark   | 2           |              |   |
| 1 x text field to display F, P, D          | 2           |              | <i>Text field that the user cannot update that displays the final BMI.</i>  |
| Layout.                                    | 3           |              |   |
| <b>CODE</b>                                |             |              |   |
| Code within button                         | 1           |              | <i>General layout of the fields on the screen.</i>  |



|              |    |   |    |
|--------------|----|---|----|
| Code correct | 7  |   |    |
|              | 25 | 0 | 0% |