MAP524 – Mobile App Development Android
Assignment - 1

Evaluation: 100 Points. (10%)

Instructions:

- This assignment is to be done individually.
- I will use **Google Pixel 4 XL configured with API 27** to run and test the app.
- Besides implementing the required functionality submissions are required to use the correct coding conventions used in class, professional organization of the code, alignment, clarity of names is all going to be part of the evaluation. Comments for code snippets are recommended but not required.

Task:

- Create an Android app named **FIRSTNAME_HydroCalc** that will allow you to generate the bill amount of hydro consumption as follows.
- **(35 points)** Ask the user to input On-peak usage, Off-peak usage and Mid-peak usage. All three inputs indicate usage in kWh having Double/Float values. You must show appropriate keyboard for all the inputs.
- **(30 points)** Calculate the following charges when "Calculate Hydro" button is clicked and display it to the user as per shown in snap.
    - The charges for on-peak usage is $0.132/kWh, for off-peak usage it is $0.065/kWh and for mid-peak usage it is $0.094/kWh.
    - The total consumption charges are combined total of on-peak charges, off-peak charges and mid-peak charges.
    - The HST is 13% of the total consumption charges.
    - The provincial rebate(discount) is 8% of the total consumption charges.
    - Total regulatory charges are HST – provincial rebate.
    - The actual bill amount is total consumption charges + total regulatory charges.
- **(35 points)** You must use the ConstraintLayout (or LinearLayout) to design your app. Your app UI must look neat, clean and professional. Feel free to *improve* on the layout shown.

Submissions:

- Once you complete the app, create the zip of your entire project folder using following steps:
    - In Android Studio, open "**Build**" menu and select "**Clean Project**".
    - Open "**File**" menu →select "**Export**" → select "**Export to zip file**".
- Upload the exported **.zip** file in drop box.
- A **screen/video recording** demonstrating your app execution with all the functionalities or any errors if you have.

HydroCalc

On-Peak Usage	135
Off-Peak Usage	487.5
Mid-Peak Usage	127.5

CALCULATE HYDRO

| Hydro Consumption Charges | $61.49 |

On-Peak Charges $17.82

Off-Peak Charges $31.69

Mid-Peak Charges $11.99

| Total Regulatory Charges | $3.07 |

HST $7.99

Provincial Rebate $-4.92

| Total Bill Amount to Pay | $64.57 |