Individual Practical Assignment

**Question (10% of total marks)**

University students often hang out together. Sometimes at the end of a meal, or other kind of outings, a bill arrives and students need to break down the bill and settle for their share of consumption.

With this context, design and develop a bill break-down mobile application:

* App needs to provide **AT LKEAST** **TWO** options for user to break down the bill:

1. Equal break-down, where everyone will pay the same amount
2. Custom break-down:
   1. By percentage or/and ratio (whole number), individually
   2. By amount (up to two decimal places), individually
3. Combination breakdown, by percentage as well as amount

* App needs to be able to leave digital trail for the bill break-down results somehow:

1. Store the results on the mobile phone for future reference
2. Share the results to all the relevant persons, e.g. by WhatsApp or email etc

* App can **OPTIONALLY** store the details of students that often hang out together
* Note that the app **DOES NOT** require more than one person to have it installed to work

There is no restriction on the choice of development tool and programming language to use for developing the game. However, you are required to produce a simple report (softcopy) that shows screen captures of your app along with its source code. The screen captures should show the flow of your app from start to the bill break-down results, follow by digital footprint of results stored or/and sent out to the relevant parties. Please do make an effort to highlight any additional features you have potentially added. Lastly, please record a short video of no more than 2 minutes, with your face in the video too, to similarly demonstrate the app. You may be asked to demonstrate the app during your practical class should we want to seek clarification on the app you have developed. Hence please try to work on this individual assignment yourself.

What you minimally need to demonstrate in your video?

1. That you can enter the number of people to share the bill, and the app will work out the amount to pay for each person.
2. That you can show the following scenarios:
3. Equal break-down scenario: Total bill RM67.40, number of people 5, each person to pay RM13.48
4. Custom break-down by percentage or ratio scenario: Total bill RM70, number of people 3, each person to pay by percentage (25%, 35%, 40%) the amount RM17.50, RM24.50, and RM28.00, or by ratio (5, 7, 8) the amount RM17.50, RM24.50, and RM28.00
5. Custom break-down by amount: Total bill RM72.60, number of people 4, person 1 – 4 to pay by individual amount RM15, RM16.90, RM18.90 and RM19.20. The sum of the individual amount needs to be verified to be equal to the total bill amount entered. For example by changing one of the individual amount, user will be notified of the discrepancy
6. That the bill break-down results are recorded on the mobile phone persistently or shared to the relevant people, e.g. by WhatsApp or email etc.

**Marking criteria:**

* Correctness of App (25%)
* Design of App UI (30%)
* User Friendliness (25%)
* Neat Program Documentation (10%)
* Report Format (10%)

[The correctness of the app is mainly based on the requirements stated earlier. Additional features introduced will be assessed under “Design of App UI” and “User Friendliness”.]

## Submission Detail

**Due Date:** 10th August 2023 (Thursday)

Rules:

1. Submitted report must use the cover page as provided
2. The deadline for submission is 5 PM on the submission date
3. After 5 PM it is strictly regarded as LATE SUBMISSION
4. The following penalty will be imposed for Late Submission
   1. 20% will be deducted from the allocated marks for this assignment if NOT EXCEED 72 hours
   2. Marks will not be given to those who submit after 72 hours
5. Submit softcopy via Google Form, of which the link will be provided on WBLE days before the submission deadline [Please submit your individual practical assignment in a zipped file. It should contain:  
   1. your report in PDF format

2. a text file that contains a link to your recorded video presentation (e.g. uploaded to Google Drive)

3) source files, as according to .gitignore for Android projects generated using GitHub, and as placed in its original directory structure.

The above files should be placed in a parent folder named like this:

<Practical Group>-<Name>-<Student ID>.zip (e.g. P1-Lau\_Ding\_Kin-1903405)

And the zipped file should be similarly named, e.g. P1-Lau\_Ding\_Kin-1903405.zip]

**UNIVERSITI TUNKU ABDUL RAHMAN**

**Faculty of Information and Communication Technology**



**UCCD3223 Mobile Applications Development**

**(Jun 2023 Trimester)**

**Individual Practical Assignment**

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| --- | --- |
| **Name** |  |
| **Student ID** |  |
| **Course** |  |
| **Practical Group** |  |
| **Lecturer** |  |

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| --- | --- | --- |
| **Marking scheme** | **Marks** | **Remarks** |
| Correctness of App | **× 2.5** |  |
| Design of App UI | **× 3** |  |
| User Friendliness | **× 2.5** |  |
| Neat Program Documentation |  |  |
| Report Format |  |  |
| **TOTAL** |  |  |