



Advanced Computer Systems Engineering Laboratory – ENCS5150

#### TODO 4: Fragments

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**Story:** This ToDo aims to enhance your knowledge about the Fragments and Inter-Fragment communication design pattern.

**Question:** Using Android Studio software, design an android application that has an activity that has 3 fragments:

1<sup>st</sup> **Fragment:** It has 2 Plain Texts, a Text View, and a Button

2<sup>nd</sup> **Fragment:** It has a Text View and a Button.

3<sup>rd</sup> **Fragment:** It has a Text view and a Button.

#### Application flow:

- The user enters 2 numbers inside 1<sup>st</sup> fragment plain texts.
- When the button of the 1<sup>st</sup> fragment is pressed, the summation of the two numbers will be displayed in the 2<sup>nd</sup> fragment text view. In addition, the multiplication of the two numbers will be displayed in the 3<sup>rd</sup> fragment text view.
- Pressing the button in the 2<sup>nd</sup> fragment, will increment the summation result by 1, and display it in the 1<sup>st</sup> fragment text view.
- Pressing the button in the 3<sup>rd</sup> fragment, will decrement the multiplication result by 1, and display it in the 1<sup>st</sup> fragment text view.

**NOTE THE NEXT PAGE - READ IT CAREFULLY**

Grading Policy is shown in Table 1:

**Table 1: Grading Policy**

Point	Achieved grade
App Design: Single activity and 3 Fragments with specified components: Text View, etc.	/3
Inter-Fragment Communication Design Pattern	/2
Summation	/1
Multiplication	/1
Increment Button	/1.5
Decrement Button	/1.5
<b>Total (10)</b>	

**Note:** You need to fill it and send your mark expectation with solution. Otherwise, you will lose 2 marks.

**READ ME:** The name of the application must be in the following convention: UID FirstName FamilyName.

#### **What to submit?**

- Project.zip file (Size in KB)
  - From Android Studio: File → Export to zip file
- APK file
  - From Android Studio: Build → Build Bundle(s) / APK(s) → Build APK(s)  
Note the 'locate' word which will appear.
- Table 1 filled by yourself.

#### **Where to submit?**

- Reply to the message on Ritaj Only!

#### **Deadline:**

- Sent on a previous message with the delay penalty.