



MOBILE APP DEVELOPMENT (MAP523)

FINAL EXAM

SUMMER 2019

TIME: 110 MINUTES

INSTRUCTOR: ALIREZA MOGHADDAM

INSTRUCTIONS:

- Manage your time carefully.
- This is an open book exam and any usage of course material during the exam is allowed.
- Do not forget to write your name and sign.

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|--------------|--|
| STUDENT NAME | |
| STUDENT ID | |
| SIGNATURE | |
| EMAIL | |
| MARK | |
| RE-MARK | |

Note:

Your have to submit your own genuine work and your name must appear on top of all swift files inside the project that you submit, i.e. you can NOT use other's codes directly.

For this test, you are requested to develop the following application:

Contents (20 Marks)

1. A table view on **top** of the screen with ONLY one row to display string.
2. A picker view with two pickers (components) in the **middle** of the screen. The data for the first picker are: "Seneca@York", "Seneca@Newnham" and "York University". The data for the second picker are "-2", "-1", "0", "+1" and "+2". We will use them later on as zoom levels.
3. Two buttons at the **bottom** of the pickers titled as "Locate" and "Add Pin"
4. One Map view at the very bottom of the page.

Logic (70 Marks)

- **Picker View:** (10 marks)
 - Set default values of the pickers to be "Seneca@York" and "0", respectively.
- **Locate:** (20 marks)
 - Once tapped, the map should display the selected location with the selected zoom level.
- **Add Pin:** (10 marks)

- Once clicked, a pin is added to the map on the selected location. The title and subtitle for the pin is up to you.
 - **Table View: (30 Marks)**
 - The table view always displays the last selected location. At the beginning of the application, the row of the table view displays “No data”. Once a location is “**Located**” (locate is tapped) the name of the location will be added to the table.
 - The row of the table view gets updated after every visit.
 - **Questions: (10 Marks)**
 - Answer the following questions inside your code in the main “ViewController.swift”. If you answer them in a different file, marks will be deducted. Identifying the main “ViewController” is part of the exam.
 - For instance: “//Answer To Question One:”
1. Write down the name of the delegation functions that you use in your code for the “picker view”, if you have used any.
 2. Show an example of an “closure” used in your code.
 3. Write down the type of a function “f” that returns an integer and takes two floats as arguments.
 4. Write down an example of a function with two integer as arguments that can modify the values of the passed arguments.

Submission:

Follow these instructions carefully:

- Zip (compress) the entire project folder
- Submit the zipped project folder