

# **BSc (Hons) in Information Technology**

## **Object Oriented Concepts – IT1050**

## **Assignment 2**

Year 1, Semester 2 2021

Consider the **topic** you have been given **for OOC group work**. (Same topic is given for SPM, IWT and ISDM modules)

### Exercise 1: (20 marks)

- 1) List down the requirements you have identified, for the system you need to implement. There should be at least 10 different requirements excluding the user login.
- 2) Do a Noun Verb analysis to the nouns you identify in your description. Show how the Nouns were rejected using the rules.
- 3) List down the classes you have identified to implement your system using noun verb analysis.

### Exercise 2: (20 marks)

1) Draw CRC cards for the classes you have identified in **Exercise 1**. Identify the Responsibilities and Collaborations of each class.

You can further refine your classes by analyzing the requirements further.

### Exercise 3: (30 marks)

Draw the class diagram for the classes you have identified in your senario. You need to use proper UML notations to draw the class diagram. Show the necessary relationships among classes using UML notations.

Include the attributes and the methods in the classes.

**Special Note:** Each member should do part of the design which they can code seperately and upload in GITHUB. The final report should indicate the class diagram of the whole system as well as the individual contribution.

### Exercise 4: (30 marks)

Write the coding for the classes in your class diagram. You can write the coding of the class and the constructors. You need not implement the methods. Write a main program to create the objects of the classes you have written.



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**Special Note:** Each member should develop the coding for the classes they have individually designed in Exercise 3 and upload in the relevant repository in GITHUB. Include all codings of all 4 members to the report too.

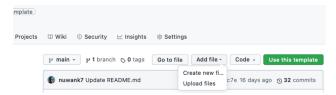
#### **Submission Instructions:**

- 1) Write answers for all 4 exercises in a word document.
- 2) Include a cover page (template given)
- 3) Rename the word document with your Group number in the following format.

### GroupNo\_Topic.pdf

Eg: MLB\_01.01\_01\_OnlineFoodDelivery.pdf

4) Upload the word document/pdf to your official github repo by using the Add command in GitHub.



- 5) You should add program code (Exercise 4) using repl.it (the same way you have done for Tutorials). If you have an issue in using private repositories in repl.it you can upload your individual work using step 4.
- 6) Deadline for Submission in GITHUB group repo: 15th October 2021, 12 midnight. Late submissions are not marked and hence given zero.

#### Note:

- 1. All submissions will be checked using a plagiarism tool. If your submission fails the plagiarism test, you will get zero marks for the entire assignment.
- 2. Document name should be given in the format as exactly mentioned in the point 3) above. Failing to do so will result in 50% reduction of marks.
- 3. All details of the cover page should be filled. Failing to mention the correct group number, ID numbers and the names of members and the topic correctly will result in loss of marks.