

BSc (Hons) in Information Technology Year 1

Lab Exercise 09

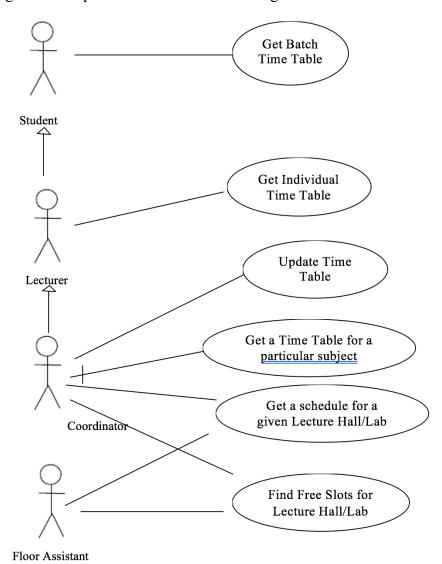
IT1050 – Object Oriented Concepts

Semester 2, 2021

In this Lab we will discover classes using the CRC method. You will need several A4 sheets for this exercise. You should be with 5 your seven members group for this Lab.

Time Tabling Software System for SLIIT

The following is a brief specification of a Time Tabling Software for SLIIT.



Use Case No: 01

Use Case Name: Get Batch Time Table

Main Flow:

- 1. The user logs into the system
- 2. The system displays Menu
- 3. User Selects Get Batch Time Table
- 4. The system prompts the user to select year and batch
- 5. User selects year and batch
- 6. System displays Batch Time table

Use Case No: 02

Use Case Name: Get Individual Time Table

Main Flow:

- 1. The lecturer logs into the system
- 2. The system displays Menu
- 3. User Selects Get Individual Time Table
- 4. System displays Individual Time table

Use Case No: 03

Use Case Name: Update Time Table

Main Flow:

- 1. The coordinator logs into the system
- 2. The system displays Menu
- 3. Coordinator selects Subjects/Lecturers/Lecture Halls/Labs/Batches/Time Table
- 4. Coordinator updates relevant data.

Use Case No: 04

Use Case Name: Get Time Table for a particular subject

Main Flow:

- 1. The coordinator logs into the system
- 2. The system displays Menu
- 3. Coordinator selects Time Table for a particular subject
- 4. The system prompts for the subject
- 5. The coordinator enters the subject
- 6. The system displays the subject specific timetable.

Use Case No: 05

Use Case Name: Get a schedule for a particular lecture Hall/Lab

Main Flow:

- 1. The coordinator logs into the system
- 2. The system displays Menu
- 3. Coordinator selects schedule for a Lecture Hall/Lab
- 4. The system prompts for the Lecture Hall/Lab
- 5. The coordinator enters the Lecture Hall/Lab
- 6. The system displays the schedule for a particular Lecture Hall/Lab

Use Case No: 06

Use Case Name: Find free slots for a Lecture Hall/Lab

Main Flow:

- 1. The user logs into the system
- 2. The system displays Menu
- 3. user selects Find Free slots for a Lecture Hall/Lab
- 4. The system prompts for the Lecture Hall/Lab
- 5. The user enters the Lecture Hall/Lab
- 6. The system displays the free slots for a particular Lecture Hall/Lab

Exercise - #1 – Brain storming session to identify classes

Group into a group of 5 members (Ideally your project group).

- 1. Nominate one member to be the moderator.
- 2. The moderator should have several A4 Sheets with him/her
- 3. Using a brain storming session identify classes for this problem. As a group go through each of the use cases/use case scenarios. The moderator should write down the names mentioned by the members.
 - i.e. The moderator can guide the group by saying let's take use case scenario and identify potential classes. Later take the next use case scenario (you can go back to the previous use case scenario if needed). You should not discuss the merits of a potential class at this stage.
- 4. Once completed the moderator should take each class that was proposed and as a group decide if that should be a class or not.

Class name:	
Responsibilities:	Collaborations:

Exercise - #2 - Identify the Responsibilities and Collaborations using CRC cards.

Take several A4 sheets and use the quarter of the sheet as a CRC card.

- 1. Each member can represent 1-2 classes.
- 2. Each member should try to assign responsibilities for his/her class.
- 3. Discuss this as a group taking one class at a time and agree about the Responsibilities.
- 4. Each member should try to assign collaborations for his/her class (identify helper classes).
- 4. Discuss this as a group taking one class at a time and agree about the collaboration and responsibilities.

Exercise - #3 – Identify properties and methods of the classes

- 1. Each member should take his/her class and identify properties and methods.
- 2. As a group take each class separately and agree upon the properties and methods.
- 3. Go through the classes once again and make further adjustments as necessary. Note: The methods should support the collaborations.

Upload the work that you have done to the courseweb link provided. You can take photos of the work that you have done on paper and use that as the basis of your submission. There should be only one submission per group.

Additional Exercise - #4 – Follow Steps 1 to 3 for your Case Study

- 1. Get into your Case Studies Group
- 2. Develop 10 detail user stories (or detail descriptions) of 10 user stories (features) of your case study.
- 3. Follow Steps 1 to 3 of your Case Study.
- 4. Continue to work on this outside the Lab, this will form the basis of your Case Study Assignment Submission for OOC.