



Assignment-1: Case Study and Presentation
Object Oriented System Design (BTC 701) – ODD 2014

Handout Date: 4th week

Duration: 2 weeks

Submission Date: 11/8/2014

Presentation dates: Notified Latter

Total Marks: 15

Instructions to students:

- You can make use of the library resources to find information.
- Present the relevant references /citation at the end of the report.
- Marks will be awarded for the content written in your own words.
- If two or more documents contain duplicate information marks will be deducted.

Note: This is an individual case study; any request for forming the group for doing the case study will not be acceptable.

Objective: The aim of this case study is to give the students an overview of Object Oriented System Design techniques during the development process.

Outcomes:

1. Understanding the concept of visual modelling using UML.
2. Use a CASE tool to construct appropriate analysis / design diagrams addressing a clearly defined problem
3. Analyze and design a computer-based solution to a clearly defined problem using object oriented techniques

Tasks: Read the following scenario, understands and present your response for the tasks assigned in a documented for not more than 7 pages.

Note: Use an appropriate CASE tool for visual modeling (designing the diagrams) (Any other tool like designing in word will not be acceptable).

**Description of the Scenario:****“A Web Based Learning Management System”**

This case study is to construct the design elements for a web-based e-learning system that can be used to enhance the learning process at Amity University. The proposed system is called “Amity e-Learning System”. Amity University has several departments; each department offering a variety of programs in a variety of areas. Each program contains a set of courses. Each course is made up of a set of topics. Faculties in the organization are assigned courses to teach according to the area of specialization and availability. The organization publishes and maintains a calendar of the different courses and the assigned faculty every semester. There is a group of course administrators in the Institute who manage the courses including course content, assign courses to faculty, and define the course schedule, in addition to assigning courses to course creators.

The proposed system is a web-based learning system that provides:

1. An efficient and easy learning system that students can interact with.
2. A simple user interface that facilitates the interaction with the system.
3. Administration tools that provide capabilities for implementing online courses.
4. An efficient Student Management System that presents all the functions required by the student to fully implement the concept of Distance Learning System.

Based on the above narration, do the following tasks:

1. **Describe and design the following for the above given scenario**
 - A) **Use Noun Identification Techniques** to identify the **candidate class** with **attributes** and **behavior/operation**. **[05 Marks]**
 - B) **Use Case Diagram**
 - a) Description from the given scenario point of view **[02 Marks]**
 - b) Design the Use Case diagram of the proposed system **[03 Marks]**
 - C) **Class Diagram**
 - a) Description from the given scenario point of view **[02 Marks]**
 - b) Design detailed class diagram of the proposed system. **[03 Marks]**
2. **Presentation (student has to present the work using the modeling tool) (over all performance depends on presentation)**

Note:

- a) Zero marks will be awarded if student is absent for presentation.
- b) Viva-Voce will be based on all the task of Q1.



Instruction:

- Answer all the given questions/tasks.
- One consolidated case study report and presentation should be submitted from each student.
- The report should contain the following:
 - Title Page (includes Title of the case study, Names of the student, Student ID, Department Name, Semester Name, Academic Year)
 - Table of Contents (Topics covers and page number)
 - Answer for tasks given in the case study.
 - References (book, journals, internet resources used in preparing the presentation report/slides or others)
- Student has to submit the report through Moodle also.
- Each individual will have one presentation schedule and should be present, unless due to illness. Otherwise, no marks will be awarded to the absent student. The absent candidate will be scheduled for another presentation and should present the whole case study.

Guidelines

Follow the guidelines mentioned below for your case study.

- Case study reports/answers should be **typed** by individual.
- **Handwritten presentation report/slides will not be accepted**
- Presentation report/slides should have a Title Page. Title Page should contain the following information.
 - ❖ Module Name and Module Code
 - ❖ Student name
 - ❖ Student ID
 - ❖ Department Name
 - ❖ Semester Name
 - ❖ Academic year
- It should have Table of Contents
- Use page numbers when you are preparing a report.
- Limit the number of points in presentation slides to **4** points per page.
- Presentation report should be typed in your own words using **Times New Roman font size 12.**
- Presentation report heading should be with **Font Size 14, Bold, Underline**



- Use caption for each diagram with diagram number.
- Library and internet resources can be used for finding information.
- Marks will be awarded for the content written in your own words.
- Copy paste from the Internet is strictly not acceptable.
- Reference should be included in the last page as follows
 - Author name, Book Title, Publisher, Year in case of books
 - In case of web site references type the full path of the web page with referenced date
 - In case of magazines/ periodicals type article name, magazine name, Issue Number and date

Rules & Regulations

- If any topic or diagram of case study is found copied from the other then marks will be deducted from both case studies/report.
- The purpose of case study is to do some brain storming so you can consult books in Library or use internet or computer magazines or any other source.

Late Submission

Penalty for late presentation & report submission - 5% of the maximum mark specified for the assessment will be deducted for each working day.

Presentation documents submitted beyond a period of one week after the last date of submission will not be accepted and will be marked as zero for that assessment.

Note:

1. Must follow case study instructions.
2. Send the softcopy of the report to profharipandeyamity@gmail.com (Write your name, enrollment number, section in the subject line)
3. For any query feel free to contact me. But you are advised not to share your answer with anyone else or not to copy from others.



How you will provide the answer

Details must be provided as (for each question):

Analysis:

Description of Components:

Component Used	Symbol	Description

Provide the diagram:

Explanations:

Your understanding:

- 1.
- 2.
- 3.
- 4.



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Case Study Evaluation Grid

Deliverables	0	1	2	3-4	5	Marks
Task 1 A	Incomplete/ Weak/Plagiarized work	Partially correct Classes without attributes and operations	Partially correct Classes with attributes and operations	Satisfactory Identification of classes with attributes and operations	Complete and accurate in all aspects	
Deliverables	0	0.5	1	2		Marks
Task 1 B Part-a	Incomplete/Weak/Plagiarized work	Partially Correct but not as per the scenario	Satisfactory Description	Complete and accurate in all aspects		
Deliverables	0	1	2	3		Marks
Task 1 B Part-b	Incomplete/Weak/Plagiarized Work	Partially Correct Use case diagram	Satisfactory design for the Use Case diagram	Complete and accurate in all aspects		
Deliverables	0	0.5	1	2		Marks
Task-1 C Part-a	Incomplete/Weak/Plagiarized work	Partially Correct but not as per the scenario	Satisfactory Description	Complete and accurate in all aspects		
Deliverables	0	1	2	3		Marks
Task-1 C Part-b	Incomplete/Weak/Plagiarized Work	Partially Correct Class diagram	Satisfactory design for the Class diagram	Complete and accurate in all aspects		

Task Details	Max Marks	Obtained Marks
Task-1 A	05	
Task-1 B	05	
Task-1 C	05	
Total Marks		

Sl No	Student Id	Student Name	Marks Obtained for Viva	Total Marks Scored out of 15	Penalty If any	Final Mark
1						

Signature of Teacher