TME2413/TMI2113/TMN2223/TMS2833/TMT2673
Object Oriented Software Development
Assignment (20%)

Due date: 27 November 2020 (Friday), before 10 am.

Instructions:

1. This is a group (**5** persons in a group) assignment. **I will not accept individual work**. Your assigned group is uploaded in eLEAP.
2. You must follow exactly the instructions specified in this assignment.
3. The assignment constitutes **20%** of the total evaluation in this course.
4. The due date of this assignment is on **27 Nov, 2020 (Friday), 10:00 am**. Late work will have **4 marks deducted per day**, down to zero mark (after 5 days do not be bothered to submit).
5. We expect a high-quality assignment and each of them have to be different. Plagiarizers will be seriously penalized (both original creator and copier). I will consider highly similar work to be plagiarism. Zero marks will be awarded if plagiarism is detected.
6. You must submit a soft copy according to your lecture group submission link via eLEAP **Assignment Submission**.
7. The report must be attached with the **assignment cover sheet** (see end of this file)**.** The sheet must be filled up **properly and with all members signed**. Please indicate your lecture group number (L.Group) on it as well. Students who do not know their lecturer and L. Group will be given zero mark.
8. Please ensure your work is pleasant to be read and the diagrams are clear in a document file. **Work with watermarks or distorted images will be discounted in marks**.
9. Safeguard your work in a reliable storage and make duplicate copies. Excuses like lost file, no internet access, computer damage and leaked works of whatever, will not be entertained.

GROUP WORK

1. Setup Microsoft Teams for your own group. (Log in to your UNIMAS 365 account and Microsoft Teams is available there).
2. All meetings, chats and file sharing, should be done through that Team. You might be required to let the lecturer join the Team to check team work within the team.

CASE STUDY

Refer to the given case study (Provided in a separate file).

Question 1

Using Visual Paradigm, develop a **use case diagram** with **use cases** (6 to 10 use cases) to reflect the requirements of the given case study. Noted that each use case must couple with correspondent **use case description**.

References:

Visual Paradigm Community Edition:
http://www.visual-paradigm.com/download/community.jsp

Constructing UML Use case diagram using Visual Paradigm:
http://www.visual-paradigm.com/tutorials/writingeffectiveusecase.jsp

https://www.youtube.com/watch?v=SCKuihAV1Ak&t=112s

Use case diagram examples:
http://www.uml-diagrams.org/use-case-diagrams.html

Use case specification example:

Use Case	Place Bet
Short Description:	The user places a bet on a particular horse after choosing a race
Actors:	Gambler
Requirements	R2.3; R7.1
Pre-Conditions:	The User has successfully logged in
Post-Conditions:	A bet was placed and the bet was recorded by the system
Main Flow:	

(1) On initiation of Place Bet by the gambler, a list of the day's races are requested from the system, and (2) the list of races are displayed

(3) The Gambler chooses the race to bet on [A1] and (4) the system presents a list of the runners for that race

(5) The Gambler chooses the horse to bet on [A1] and enters the required stake [E1]

(6) The User Confirms the transaction and (7) the system displays a confirmation message

Alternate Flow(s):

(A1) The gambler cancels the transaction.

Post Condition -> No bets were placed

Exception Flow(s):

(E1) The user's credit is not sufficient to fund the bet. The user is informed and the Use Case Terminates

Question 2

Based on the use cases you provided in Question 1, draw **TWO (2) system sequence diagrams (SSD)**. For the other use cases you did ***not*** draw SSD, draw **FOUR (4) sequence diagrams (SD)**. These sequence diagrams illustrate the sequence of interactions between the main components of the proposed system.

Hint: Search the differences between System sequence diagram and normal sequence diagram.

Question 3

Develop **ONE (1) activity diagram** to represent the business process of the proposed system.

Hint: Search the differences between sequence diagram and normal sequence diagram and activity diagram Look into symbols used for activity diagram.

UNIVERSITI MALAYSIA SARAWAK
Faculty of Computer Science and Information Technology

Assignment/Report Cover Sheet

Student Name (lecture group no)	Student Id Number	L. Group	Signature
		01	
		01	
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Subject Code: **TME2413 G2**	Subject Name : **Object Oriented Software Development**		
Assignment Title :	Assignment 1	Lecturer:	Dr Chai Soo See
Due Date : **27/11/2020, 10:00am**		Date Submitted:	

This cover sheet must be completed, signed and firmly attached to the front of the submission. All work must be submitted by the due date. If an extension of work is granted, an assignment extension acknowledgement slip must be signed by the lecturer/tutor and attached to assignment. Please note that is your responsibility to retain copies of your assignment.

Plagiarism and Collusion are methods of cheating that falls under Peraturan Akademik Universiti Malaysia Sarawak para 11: Etika Akademik

Plagiarism
Plagiarism is the presentation of work which has been copied in whole or in part from another person's work, or from any other source such as the internet, published books or periodicals without due acknowledgement given in the text.

Collusion
Collusion is the presentation of work that is the result in whole or in part of unauthorized collaboration with another person or persons.

Where there are reasonable grounds for believing that cheating has occurred, the only action that may be taken when plagiarism or collusion is detected is for the staff member not to mark the item of work and to report or refer the matter to the Dean. This may result in work being disallowed and given a fail grade or if the circumstances warrant, the matter may be referred to a Committee of inquiry for investigation. Such investigation may result in the matter being referred to the University Discipline Committee, **which** has the power to exclude a student.

Upon placing signature above, I certify that I have not plagiarized the work of others or participated in unauthorized collusion when preparing this assignment.

I also certify that I have taken proper case in safeguarding my work and have made all reasonable efforts to ensure that may work not be able to be copied.

MARK :