SECJ 1023 - Programming Technique II
Semester 201920201
Lecturer: Dr Muhammad 'Arif Mohamad

PROJECT GUIDELINE

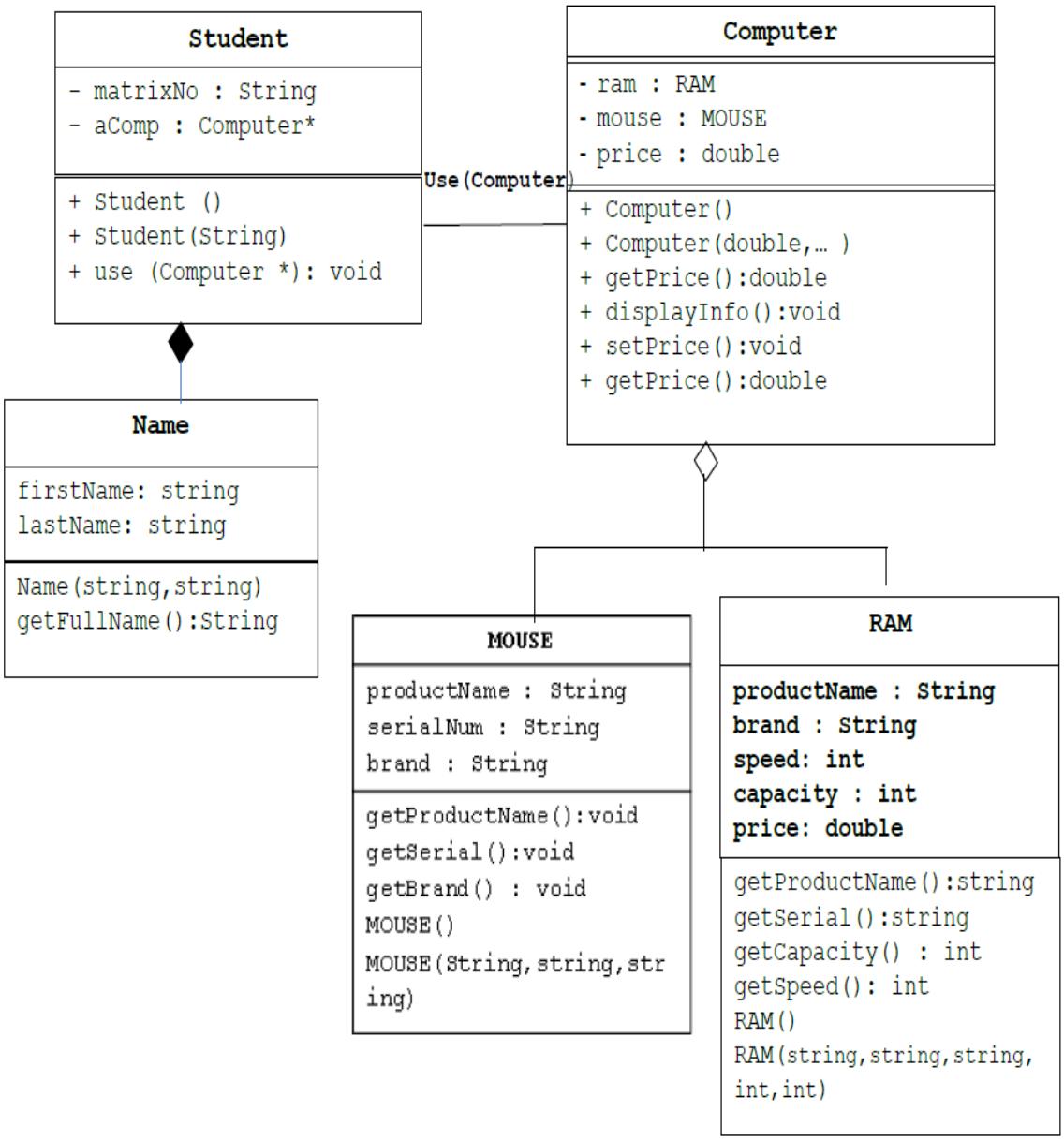
Project Activities and Due Dates

Task	Due Date
Task 1 – Project proposals and group formation. Find a case study i.e. e-commerce system, cinema booking system, minimarket system etc.	**25 April 2020** Submit in e-learnig.
Task 2 - Generate Class Diagram that implement Association, Aggregation and Composition	**to be updated later*
Task 3 – Submission of Association, Aggregation and Composition Implementation in C++ based on the class diagram. Besides association, aggregation and composition, you need to use overload operator, array of objects and provide menu in the system.	**to be updated later*
Task 4- Peer and Self Assessment	**to be updated later*
Task 5- Generate Class Diagram that extend the previous diagram with inheritance and polymorphism concept.	**to be updated later*
Task 6- Submission of the Codes in C++ based on the class diagram and includes inheritance and polymorphism concept. You also need to use array of objects and provide menu in the system.	**to be updated later*
Task 7- Peer and Self Assessment	**to be updated later*
Task 8 - Project Demo (Individual)	**to be updated later*

Guideline for students

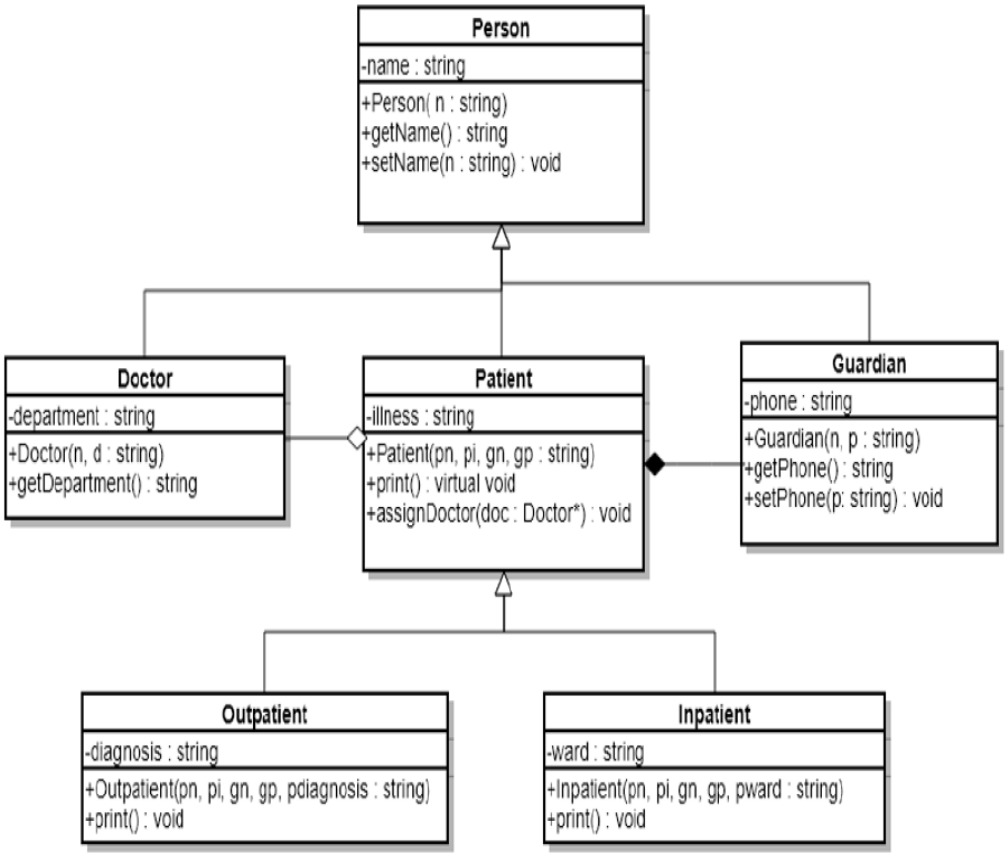
Example of Class Diagram: Association, Aggregation and Composition

Notes: You must have at least 4 classes that implement association, aggregation and composition. Your program must implement overload operator, array of objects and provide menu in the system.



Example of Class Diagram: Inheritance and Polymorphism

Notes: You must implement inheritance, polymorphism, aggregation and composition. Your program must implement array of objects and provide menu in the system. The inheritance concept must have several hierarchies as shown in the figure below, provide pure virtual function and implement the polymorphism concept.



Group Project and Teamworking Assessement Criteria

Item	Percentage
The project outcome:	
The program / product / result	2.0%
The source code, including program structure, coding style, follow conventions and good practices.	1.0%
Implementation of Concepts:	
Encapsulations: classes and objects	1.0%
Associations / Aggregrations / Compositions	1.5%
Inheritances	1.0%
Polymorphisms	1.5%
Project Proposal	1.0%
Class Design : **Association, Aggregation and Composition** **Inheritance and Polymorphism**	1.0%
Total	**10.0%**

Item	Percentage
Peer and Self Assessment (Each member needs to fill in the peer and self assessement form) At least three assessments are required.	3.0%
Project Demo and Individual Participation Presentation (Each member needs to do an individual demo / presentation showing the individual progress / contribution to the execution of the group project)	2.0%
Project Progress: Individual Participation to the Group Project • Frequency in Consultation with Lecturer • Demonstrate capability to cooperate with team members • Demonstrate capability of implementing the project	5.0%
Total	**10.0 %**