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| Assignment [3] |
| NUR SYUHAIDAH BINTI ISMAIL [CB13006] |
| Section [02] |

**BCS2333 SOFTWARE PLANNING & REQUIREMENT WORKSHOP 2013/2014/1**

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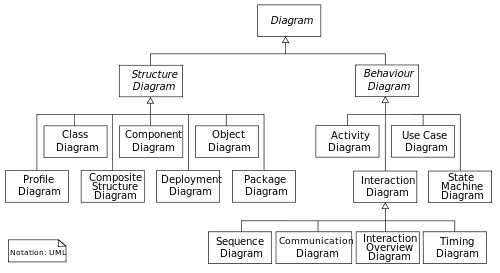
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| logoUMP | **FAKULTI SISTEM KOMPUTER & KEJURUTERAAN PERISIAN** | | | | **MARKAH:**    /5 |
| **MATAPELAJARAN:** SOFTWARE PLANNING AND REQUIREMENT WORKSHOP | | | |
| **TOPIK:** WBS | **KOD:** BCS2333 | | |
| **PENILAIAN:** Assignment | **BIL:** 3 | | **MASA:** 3 Hours |
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| **NO MATRICES** : CB13006  **Instructions:**   1. This work should be done individually. But you are allowed to discuss with your colleague. 2. All your assumption and work (including your calculation, if any) must be clearly stated in this lab sheet. 3. Submit softcopy at the end of lab session.   **Questions**   1. Discuss the important of having a variety of UML diagrams in a model of a system. (1 mark) 2. Which diagrams in UML give a static view of a system? Please list them and describe uses of each diagram. (2 marks) 3. Which diagrams in UML provide a dynamic view of a system? Please list them and describe uses of each diagram.(2 marks) | | |  | | |

1. *Discuss the important of having of UML diagrams in a model of a system (1 mark)*

UML diagram provides a visual representation of an aspect of a system. UML diagrams illustrate the quantifiable aspects of a system that can be described visually, such as relationships, behaviour, structure, and functionality. For example, a class diagram describes the structure of the system or the details of an implementation, while a sequence diagram shows the interaction between objects over time.

1. *Which diagrams in UML give a static view of a system? Please list them and describe uses of each diagram (2marks)*



**Structure diagram** shows **static view** of the system and its parts on different abstraction and implementation levels and how those parts are related to each other.

1. Class Diagram

[Class diagram](http://www.uml-diagrams.org/class-diagrams-overview.html) is a static structure diagram which describes structure of a system at the level of [classifiers](http://www.uml-diagrams.org/classifier.html) (classes, interfaces, etc.). It shows some classifiers of the system, subsystem or component, different [relationships](http://www.uml-diagrams.org/uml-core.html#relationship) between classifiers, their [attributes](http://www.uml-diagrams.org/property.html#classifier-attribute) and [operations](http://www.uml-diagrams.org/class-diagrams.html#operation), [constraints](http://www.uml-diagrams.org/constraint.html?context=class-diagrams).

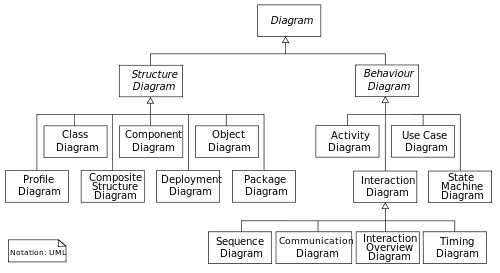
1. Deployment Diagram

[Deployment diagram](http://www.uml-diagrams.org/deployment-diagrams-overview.html) shows architecture of the system as [deployment](http://www.uml-diagrams.org/deployment-diagrams.html#deployment) (distribution) of software [artifacts](http://www.uml-diagrams.org/deployment-diagrams.html#artifact) to [deployment targets](http://www.uml-diagrams.org/deployment-diagrams.html#deployment-target).

1. Packet Diagram

[Package diagram](http://www.uml-diagrams.org/package-diagrams-overview.html) shows [packages](http://www.uml-diagrams.org/package-diagrams.html#package) and relationships between the packages.

1. *Which diagrams in UML provide a dynamic view of a system? Please list them and describe uses of each diagram (2marks)*



**Behaviour diagrams** show the **dynamic behaviour** of the objects in a system, which can be described as a series of changes to the system over **time.**

1. Use Case Diagram

[Use case diagrams](http://www.uml-diagrams.org/use-case-diagrams.html) are **behaviour diagrams** used to describe a set of actions ([use cases](http://www.uml-diagrams.org/use-case.html)) that some system or systems (**subject**) should or can perform in collaboration with one or more external users of the system ([actors](http://www.uml-diagrams.org/use-case-actor.html)) to provide some observable and valuable results to the actors or other stakeholders of the system(s).

1. Activity Diagram

[Activity diagram](http://www.uml-diagrams.org/activity-diagrams.html) shows sequence and conditions for coordinating lower-level behaviours, rather than which classifiers own those behaviours. These are commonly called **control flow** and **object flow** models.

1. Sequence Diagram

[Sequence diagram](http://www.uml-diagrams.org/sequence-diagrams.html) is the most common kind of interaction diagrams, which focuses on the message interchange between [lifelines](http://www.uml-diagrams.org/sequence-diagrams.html#lifeline) (objects).

*References*

[URL] <http://pic.dhe.ibm.com/infocenter/rsarthlp/v8r5/index.jsp?topic=%2Fcom.ibm.xtools.modeler.doc%2Ftopics%2Fc_models_and_diagrams.html>

[URL]

<http://en.wikipedia.org/wiki/Unified_Modeling_Language>

[URL]

<http://www.uml-diagrams.org/uml-24-diagrams.html>