UECS2344 Software Design
Group Assignment Marking Rubric (January 2022)

| Components | Marks | None | Unsatisfactory | Needs Improvement | Acceptable | Good | Excellent |
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| **PART 1 (CO3)** | | | | | | | |
| **Analysis Class Diagram** | **10** | **0 marks** | **1 – 2 marks** | **3 – 4 marks** | **5 – 6 marks** | **7 – 8 marks** | **9 – 10 marks** |
| | | Omitted completely | >3 errors found in UML notations<br><br>>2 irrelevant classes identified<br><br>> 4 attributes and relationships are identified incorrectly | 3 errors found in UML notations<br><br>1-2 irrelevant classes identified<br><br>> 4 attributes and relationships are identified incorrectly | 2 errors found in UML notations<br><br>All relevant classes identified correctly<br><br>3 - 4 attributes and relationships are identified incorrectly | 1 error found in UML notations<br><br>All relevant classes identified correctly<br><br>1-2 attributes and relationships are identified incorrectly | No errors found in UML notations<br><br>All relevant classes identified correctly<br><br>All attributes and relationships are identified correctly and logically |
| **Use Case Diagram & Use Case Descriptions** | **15** | **0 marks** | **1 – 3 marks** | **4 – 6 marks** | **7 – 9 marks** | **10 – 12 marks** | **13 – 15 marks** |
| | | Omitted completely | >5 errors found in UML notations<br><br>A use case diagram is drawn incorrectly and not according to the specified requirements in the scenario description.<br><br>Include < 4 use cases and they are mostly incorrect and too many ambiguities shown.<br><br>Only few use cases are documented in the use case description template, partially correct, assumptions for the flows of events are mostly incorrectly identified and/or stated, and the relationship among the use cases are mostly irrelevant. > 7 errors found. | 4 - 5 errors found in UML notations<br><br>A use case diagram is drawn according to the specified requirements in the scenario description, but with many ambiguities.<br><br>Include 6 - 7 use cases and they are understandable, but many ambiguities shown.<br><br>Document each use case using a use case description template, logical assumptions for the flows of events are identified and/or stated, and the relationship among the use cases are shown, with 6 – 7 errors found. | 3 errors found in UML notations<br><br>A use case diagram is drawn according to the specified requirements in the scenario description, but few ambiguities shown.<br><br>Include 7 - 8 use cases and they are mostly correct and understandable, but few ambiguities shown.<br><br>Document each use case using a use case description template, assumptions for the flows of events are identified and/or stated, and the relationship among the use cases are shown, with 4 – 5 errors found. | Follow UML notations mostly correct, but with 1 – 2 errors found.<br><br>A use case diagram is drawn according to the specified requirements in the scenario description.<br><br>Include 8 - 9 use cases and they are correct and understandable, from both user's and development team's perspective<br><br>Document each use case using a use case description template, logical assumptions for the flows of events are identified and/or stated, and the relationship among the use cases are shown, with 2 – 3 errors found. | Follow UML notations fully and correctly<br><br>A use case diagram is drawn according to the specified requirements in the scenario description.<br><br>Include a maximum of 9 use cases and they are correct and understandable, from both user's and development team's perspective<br><br>Document each use case using a use case description template, logical assumptions for the flows of events are correctly identified and/or stated, and the relationship among the use cases are accurately shown.<br><br>Consistencies among the use case diagram, analysis class diagram and its assumptions, and the use case descriptions are fully achieved. |
| **PART 2 (a) (CO2)** | | | | | | | |
| **Sequence Diagram** | **25** | **0 marks** | **1 – 5 marks** | **6 – 10 marks** | **11 – 15 marks** | **16 – 20 marks** | **21 – 25 marks** |
| | | Omitted completely | >5 errors found in UML notations<br><br>A sequence diagram is drawn for each use case identified in Part 1, but > 5 errors are found.<br><br>Fulfill the flow of events stated in the use case descriptions mostly incorrect, and partially achieve the consistencies among the sequence diagram, the use | 4 - 5 errors found in UML notations<br><br>A sequence diagram is drawn for each use case identified in Part 1, but with 4 – 5 errors found.<br><br>Fulfill the flow of events stated in the use case descriptions partially correct, and achieve the consistencies among the | 3 errors found in UML notations<br><br>A sequence diagram is drawn for each use case identified in Part 1, but with 3 – 4 errors found.<br><br>Fulfill the flow of events stated in the use case descriptions mostly correct, and moderately achieve the consistencies among the sequence | Follow UML notations mostly correct, but with 1 – 2 errors found.<br><br>A sequence diagram is drawn for each use case identified in Part 1, but with 1 – 2 errors found.<br><br>Fulfill the flow of events stated in the use case descriptions correctly, and fully achieve the consistencies among the | Follow UML notations fully and correctly.<br><br>A sequence diagram is drawn for each use case identified in Part 1 (i.e., 9 use cases = 9 sequence diagrams).<br><br>Fulfill the flow of events stated in the use case descriptions correctly, and achieve the consistencies among the |

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| | | | case, and its description in Part 1. Many ambiguities shown and many errors are found.<br><br>Model the interactions that are mostly inconsistent with the class diagram. | sequence diagram, the use case, and its description in Part 1.<br>4 – 5 errors are found.<br><br>Model the interactions that are somewhat inconsistent with the class diagram. | diagram, the use case, and its description in Part 1. But, 3 – 4 errors are found.<br><br>Model the interactions that are consistent with the class diagram. | sequence diagram, the use case, and its description in Part 1.<br><br>Model the interactions that are mutually consistent with the class diagram. | sequence diagram, the use case, and its description in Part 1.<br><br>Model the interactions that are mutually consistent with the class diagram. |
| **Design Class Diagram** | **20** | **0 marks**<br><br>Omitted completely | **1 – 4 marks**<br><br>>5 errors found in UML notations<br><br>The design class diagram shows many irrelevant classes, their attributes, operations (or methods), and the relationships among objects along with navigability and multiplicity.<br>> 5 errors are found.<br><br>Produce only one (1) version of the design class diagram and not able to show improvement or differences from the Analysis Class Diagram in Part 1.<br><br>The design class diagrams are very inconsistent with the analysis class diagram, and other information in Part 1. | **5 – 8 marks**<br><br>4 - 5 errors found in UML notations<br><br>The design class diagram shows many irrelevant classes, their attributes, operations (or methods), and the relationships among objects along with navigability and multiplicity.<br>4 – 5 errors are found.<br><br>Produce two (2) different versions of the design class diagram but unclear to show improvement or differences from the Analysis Class Diagram in Part 1.<br>4 – 5 errors are found.<br><br>The design class diagrams are inconsistent with the analysis class diagram, and other information in Part 1. | **9 – 12 marks**<br><br>3 errors found in UML notations<br><br>The design class diagram shows most of the relevant classes, their attributes, operations (or methods), and the relationships among objects along with navigability and multiplicity. But, 3 – 4 errors are found.<br><br>Produce two (2) different versions of the design class diagram to show improvement or differences from the Analysis Class Diagram in Part 1. But, 3 – 4 errors are found.<br><br>The design class diagrams are somewhat consistent with the analysis class diagram, and other information in Part 1. | **13 – 16 marks**<br><br>Follow UML notations mostly correct, but with 1 – 2 errors found.<br><br>The design class diagram shows most of the relevant classes, their attributes, operations (or methods), and the relationships among objects along with navigability and multiplicity. But, 1 – 2 errors are found.<br><br>Produce two (2) different versions of the design class diagram to show improvement or differences from the Analysis Class Diagram in Part 1. But, 1 – 2 errors are found.<br><br>The design class diagrams are consistent with the analysis class diagram, and other information in Part 1. | **17 – 20 marks**<br><br>Follow UML notations fully and correctly.<br><br>The design class diagram shows all relevant classes, their attributes, operations (or methods), and the relationships among objects along with navigability and multiplicity.<br><br>Produce two (2) different versions of the design class diagram to show improvement or differences from the Analysis Class Diagram in Part 1.<br><br>The design class diagrams are consistent with the analysis class diagram, and other information in Part 1. |
| **Package Diagram** | **5** | **0 marks**<br><br>Omitted completely | **1 mark**<br><br>> 5 errors found in UML notations<br><br>A package diagram is drawn partially correct, showing some irrelevant packages (with classes/interfaces) and the incorrect dependencies between the packages.<br><br>The package diagram is inconsistent and unclear with the latest version of the design class diagram. | **2 marks**<br><br>4 - 5 errors found in UML notations<br><br>A package diagram is drawn to show packages (with classes/interfaces) and the dependencies between the packages. Many ambiguities shown.<br><br>The package diagram is somewhat inconsistent with the latest version of the design class diagram.<br>4 – 5 errors are found. | **3 marks**<br><br>3 errors found in UML notations<br><br>A package diagram is drawn to show packages (with classes/interfaces) and the dependencies between the packages. Few ambiguities shown.<br><br>The package diagram is somewhat consistent with the latest version of the design class diagram.<br>1 – 2 errors are found. | **4 marks**<br><br>Follow UML notations mostly correct, but with 1 – 2 errors found.<br><br>A package diagram is drawn to show packages (with classes/interfaces) and the dependencies between the packages correctly.<br><br>The package diagram is somewhat consistent with the latest version of the design class diagram.<br>1 – 2 errors are found. | **5 marks**<br><br>Follow UML notations fully and correctly.<br><br>A package diagram is drawn to show packages (with classes/interfaces) and the dependencies between the packages correctly.<br><br>The package diagram is mutually consistent with the latest version of the design class diagram. |

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| **PART 2 (b) (CO3)** | | | | | | | |
| **Implementation (Java codes)** | **20** | **0 marks**<br>Omitted completely<br>Or<br>Unable to debug the program | **1 – 4 marks**<br>The codes are very inconsistent with the design class diagram and sequence diagram in Part 2.<br>Able to run program but have major logic error<br>The program produces incorrect results.<br>Does not check or include exception handlings for errors | **5 – 8 marks**<br>The codes are inconsistent with the design class diagram and sequence diagram in Part 2.<br>Able to run program but have minor logic error.<br>The program produces correct results but does not display correctly.<br>Does not check or include exception handlings for errors | **9 – 12 marks**<br>The codes are somewhat consistent with the design class diagram and sequence diagram in Part 2.<br>Able to run program correctly without any logic error.<br>The program produces correct results but partially display correctly.<br>Does little check or exception handlings for errors | **13 – 16 marks**<br>The codes are consistent with design class diagram and sequence diagram in Part 2.<br>Able to run program correctly without any logic error and display inappropriate output.<br>The program works and produces correct result and display correctly. It also meets most of the specifications.<br>Does some checking or exception handlings for errors | **17 – 20 marks**<br>The codes are consistent with design class diagram and sequence diagram in Part 2.<br>Able to run program correctly without any logic error and display appropriate output.<br>The program works and meets all specification.<br>Does exceptional checking or exception handlings for errors |
| **Naming rules** | **5** | **0 marks**<br>Omitted completely<br>or<br>Very Poor choice | **1 mark**<br>Poor Choice.<br>Not Meaningful and not self-descriptive | **2 marks**<br>Moderate Choice.<br>Inconsistent and mostly are not self-descriptive | **3 marks**<br>Meaningful but inconsistent and/or not self-descriptive | **4 marks**<br>Meaningful and consistent but not self-descriptive | **5 marks**<br>Meaningful, consistent and self-descriptive |