COMP-3008 Practical 03

- Study the BASE Astah file
- Answer the following questions
- Follow the submission requirements

1. Produce a Design Class Diagram

- Create a design level class diagram
- Make design decisions about **all** attributes in all classes
- Make design decisions about **all** messages in **all** interaction diagrams and create operations in classes from them
- Make decisions about **all** classes based on the MVC Architecture
- You are evaluated by the quality and consistency of your design decisions

Consider these Design Requirements

- All attributes shall be private, unless there are good reasons for another choice
- All operations shall be public, unless there are good reasons for another choice
- Customer numbers shall be 9 digits, unique, not null, and immutable
- Customers shall have a last name
- Account numbers shall be unique, not null, and immutable
- Account numbers shall start with a capital letter A-Z, followed by letters and numbers
- Accounts shall start with a zero balance
- Transaction identifiers shall be unique, not null, and immutable
- Transaction identifiers shall start at 1 and auto-increment
- Transaction identifiers shall grow into the billions
- Account types shall be a 'C' for Chequing or 'S' for Savings
- Transaction types shall be 1 for deposit or 2 for withdraw
- Transactions shall occur at the date and time when they are created
- Classes shall have appropriate constructors
- Classes shall have appropriate getters and setters

2. Recover the Analysis Class Diagram

- Recover the analysis class diagram so that it represents an analysis level view of all classes
- You are evaluated by the presentation of your analysis classes and their consistency with the design classes

Follow these Analysis Class Guidelines

- only show problem domain relevant information
- visibility of attributes and operations are not shown
- types are not shown
- constraints are not shown
- setters and getters are not shown
- constructors are not shown
- class stereotypes are not shown

Submission Requirements

1. Arrange each solution diagram and its outer frame for a professional presentation
2. Export each solution diagram as a PNG file
3. Insert the PNG files into the provided Word document TEMPLATE in the same order as the questions
4. Replace **YourName** and **##** in the header of the Word document with your name and section number
5. Save the Word document as a PDF file
6. Submit **only** the **PDF** and **Astah** files to the appropriate dropbox in Learn
7. **DO NOT zip** the files