CIS360.002 Exam 2 Study Guide

Part 1 of 2

- **Find the things**
  - Brainstorming: intuition and checklists
  - Verb/Noun exercise
- **Associate types**
  - Unit-Directional (one direction)
  - Bi-Directional (either way)
- **Cardinality**
  - Some symbols are different when compared to UML
  - Asterisks DOES NOT ONLY MEAN MANY: can be 0-many (0 means optional)
  - Double pipe means 1 and only 1
  - Crows foot means many
- **Attribute types**
  - Primary key (can be composed of several attributes or sub-attributes): UNIQUE ID
  - Foreign key, home instance of another table(s), primary key for a different table
  - Compound/Candidate key, another reference
    - Constructed for single use for when primary key is not available
    - I.e. misplace credit card: they may walk through security questions and can find your account for a new credit card or to freeze it
- **Relationship types**
  - Binary: relationship between a pair of entities (most common relationship type)
  - Unary:
  - Tenary: relationship among 3 instances, maybe entity types
  - Anary: relationship to 4-7 instances
- **Inheritance**
  - Property
  - Abstract class: instances of the abstract class inherit from the abstract class
- **Composition**
- **Use case exception conditions**
  - Encountered when a step cannot be performed
  - Have numbering system so the exception conditions can be tracked down
- **Components of use case**
  - Actors: are the stick figures outside of the diagram
  - Associations:
  - Use cases: Verb/noun arch to indicate which cases are going to be used
- **Numbering exception conditions**
- **CRUD**
  - Created, Read, Update, Delete
  - Actions change depending on the operation and data
- **Use case pre/post conditions**

Part 2 of 2

- **Polymorphism**
  - Certain structures and behaviors apply differently to different objects depending on the data type of that object
- **Specialization**
  - Diamonds on UML show it is either subdivision of a class OR there may be redundancy