# The Secrets of the Tower

# **Design Document**

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# **Story**

Your adventure takes place inside the College of Business Administration Building at Abilene Christian University. Timothy McGee is in his first semester in the SITC department, and his semester is proving to be quite the challenge. Classes, homework, difficult professors, oh my! How can Timothy get through these challenges? Help him navigate through the intricacies of the SITC department by interacting and getting to know professors and students. And, figure out how to unlock the mysteries of the Tower of Light...

## **Classes**

#### CLASS: Location

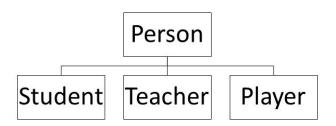
- Private
  - Location\* [] locations
    - Stores different directions available
  - o Item\* [] items
    - Stores different items available
  - String description
    - Describes the location appearance and its contents
  - Person\* [] people
    - Holds different people at the location
- Public
  - Location\* getDirection(enum direction)
    - Returns the location in the specified direction if it exists
  - void setDirection(enum direction, Location\* location)
    - Sets the specified direction to the location
  - Bool checkDirection(enum direction)
    - Returns true if a location in the specified direction exists

#### CLASS: Person

- Private
  - o String name
  - String description
  - String [] dialogue
  - o Inventory\* inventory
- Public
  - String getName()
    - Returns name of the person
  - String getDescription()
    - Returns the description of the person
  - o void setDescription()
    - For character state changes
  - String getDialogue(int index)
    - Returns the dialogue at the specified index
  - void giveItem(Person\* recipient, Item\* gift)
    - Removes item from (this) the givers' inventory if it exists
    - Adds item to recipient's inventory

### CLASS: Player, Singleton, inherited from Person

- Private
  - Location\* currentLocation
    - Holds the current location of the player
  - Location\* [] visitedLocations
    - Holds pointers to locations already visited
- Public
  - void move(enum direction)
    - Checks if the player can move in the specified direction using checkDirection()
    - Moves in the specified direction if possible
    - Changes currentLocation using getDirection()
    - Adds the new location to visitedLocations
  - o void getItem(Item\* pickup)
    - Removes item from currentLocation's inventory
    - Adds item into Player's inventory



## **CLASS: Inventory**

- Private
  - Item [] inventory
- Public
  - o void addItem(Item\* item)
    - Adds item to the inventory
  - o Item removeItem()
    - Removes the item from the inventory

### CLASS: Item

- Private
  - ∘ String name
  - String description
- Public
  - o String getName()
    - Returns the name of the item
  - o String getDescription()
    - Returns the description of the item