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Assignment Cover Letter (Individual/Group* Work)

Student Information: ***Surname*** ***Given Names*** ***Student ID Number***

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Course Code : Course Name : Programming Languages

Class : L2BC
Name of Lecturer(s) : Jude Joseph Lamug Martinez, MCS
Major : Computer Science

Title of Assignment : Final Project
(if any)

Type of Assignment : Final Project

Submission Pattern

Due Date : 20 – June – 2020 **Submission Date : 20 – June – 2020**

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Assignment (hard copy) is required to be submitted on clean paper, and (soft copy) as per lecturer's instructions.
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Signature of Student: *(Name of Student)*

Muhammad Lukman Ismail Hanafi

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Project Specification

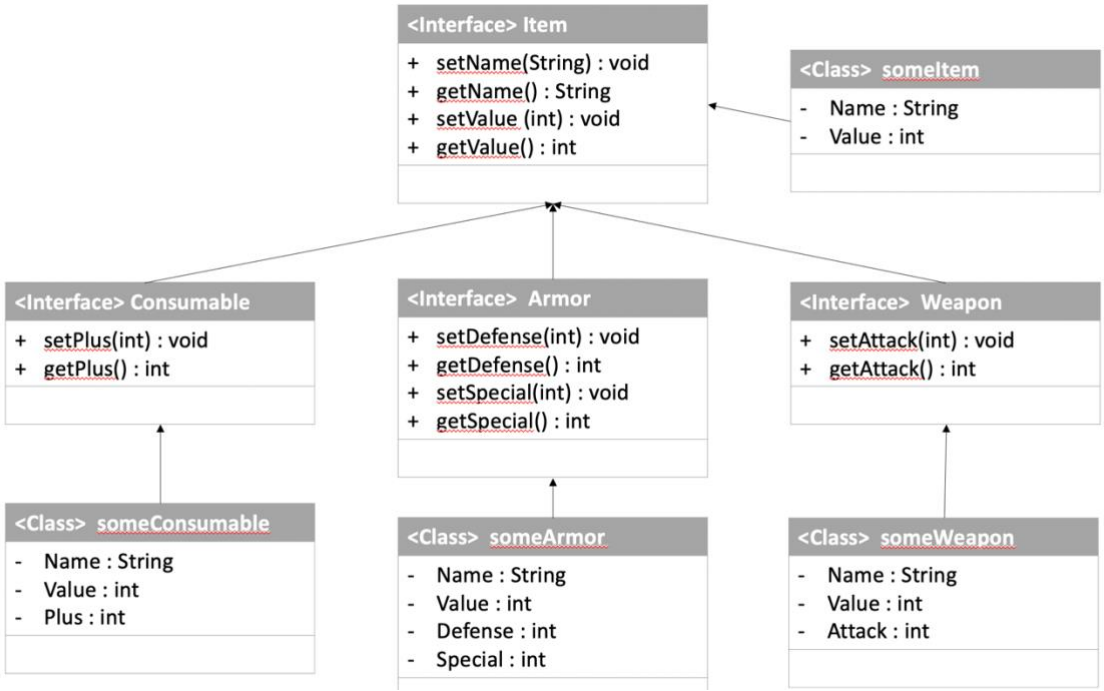
"Chunchunmaru" that is the title of the game, it's an RPG, the main objective of this game is to get the sword that is "Chunchunmaru", this game is a parody/reference to the anime called "Kono Subarashii Sekai ni Shukufuku wo!" with a twist of my humor and art. The reason why I made this game is I want to see how much have I progress since the last time I have made an RPG.

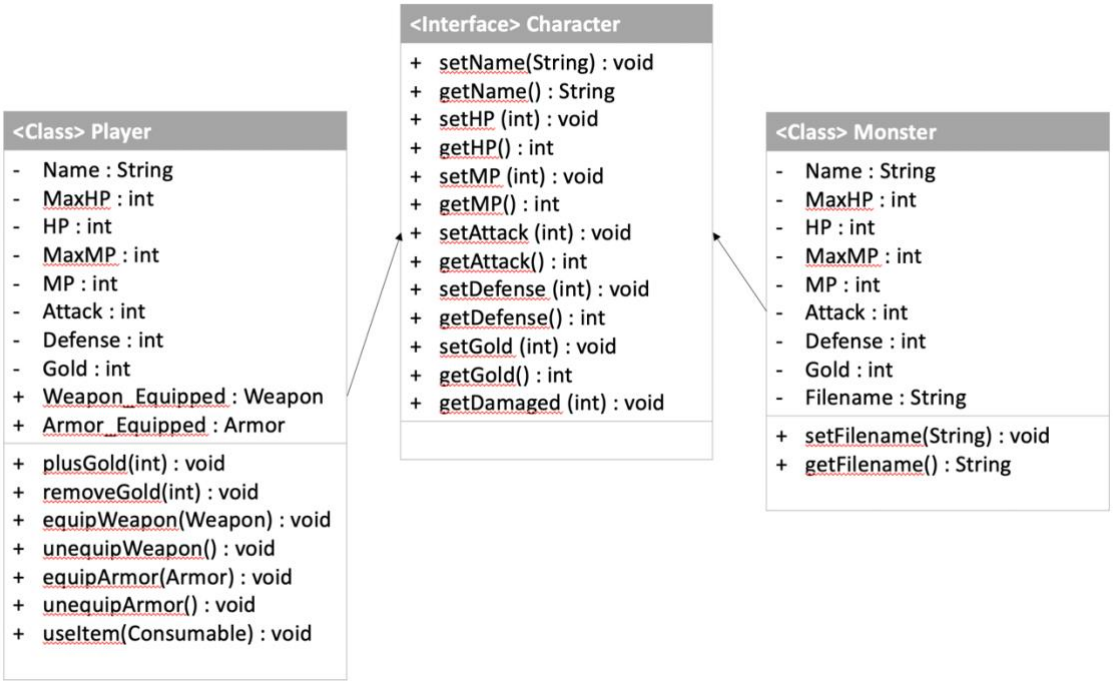
Tools that are used to create the project

- InteliiJ IDEA (Java)
- Autodesk Sketchbook
- Java swing
- Java awt
- Java util

Solution Design

Class Diagram





Discussion

Inventory System and Character

You could see above for the class diagram of the inventory system and character in the game. I used interfaces and classes, the interfaces are for the setter and getter method, and the classes are for the function that is not included in the interface. For the inventory system in the game, I used array since it's easier to grab the item you want by using the index, also the memory is already assigned during the compile time so the program wouldn't have a delay after launch.

Below are how I use the item it compares the instance of the object. And then make the one that is already used by the player into the temporary item, then put the item into player inventory. In java, it's easy to do this because you could just cast the type data into the one you want.

```
public void itemChoice(int item){
    if(playerInventory[item] instanceof Weapon){
        tempWeapon = player.weapon_Equipped;
        player.equipWeapon((Weapon) playerInventory[item]);
        if (playerInventory[item] == tempWeapon){
            playerInventory[item] = emptySlot;
        } else {
            playerInventory[item] = tempWeapon;
        }
    } else if(playerInventory[item] instanceof Consumable){
        player.useitem((Consumable) playerInventory[item]);
        playerInventory[item] = emptySlot;
    } else if(playerInventory[item] instanceof Armor){
        tempArmor = player.Armor_Equipped;
        player.equipArmor((Armor) playerInventory[item]);
        if (playerInventory[item] == tempArmor){
            playerInventory[item] = emptySlot;
        } else {
            playerInventory[item] = tempArmor;
        }
    }
```

Below are how I “remove” and add item into the player inventory, instead of removing the item I have an item that has the value of 0 and no name so when I check the item it would be easier because I could just compare the instance if it’s the “empty slot” I could just change them into the item that the player get or buy.

```
public void removeItemChoice(int item){
    if(sellingItem){
        player.plusGold(playerInventory[item].getValue());
    }
    playerInventory[item] = emptySlot;
    sc.money_Number_Label.setText("" + player.getGold());
    readInventoryName();
}

public void buyItemChoice(int item){
    cost = ShopItem[item].getValue() * 3;
    moneyChecker();
    if(player.getGold() > cost){
        player.removeGold(cost);
        itemChecker();
        if(playerInventory[itemSlot] == emptySlot){
            text = "You Bought " + ShopItem[item].getName();
            playerInventory[itemSlot] = ShopItem[item];
        } else {
            text = "You need to clear your Inventory";
        }
        textReader();
        shopChoice();
    }
    sc.money_Number_Label.setText("" + player.getGold());
}
```

If you see the class diagram for the monster class there is String filename it’s for the picture file(path) for the monster.

Evidence

What do you want to do?

HP :	75
Weapon :	Fist
Attack :	5
Armour :	Clothes
Money :	50

Lesser Potion	Wood Sword

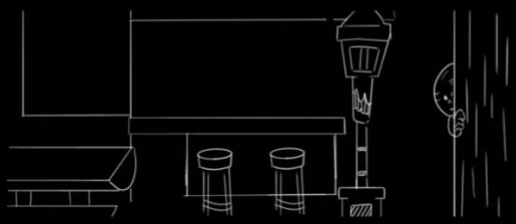
- Equip Item
- Remove Item
- Close Inventory

What do you want to do ?

HP :	75
Weapon :	Wood Sword
Attack :	10
Armour :	Clothes
Money :	50

Lesser Potion || 45 Gold	Epic Potion || 150 Gold
Leather Armor || 45 Gold	Iron Armor || 60 Gold
Steel Sword || 75 Gold	Gram || 150 Gold
Xivkyn || 234 Gold	Kyouya's Armor || 300 Gold

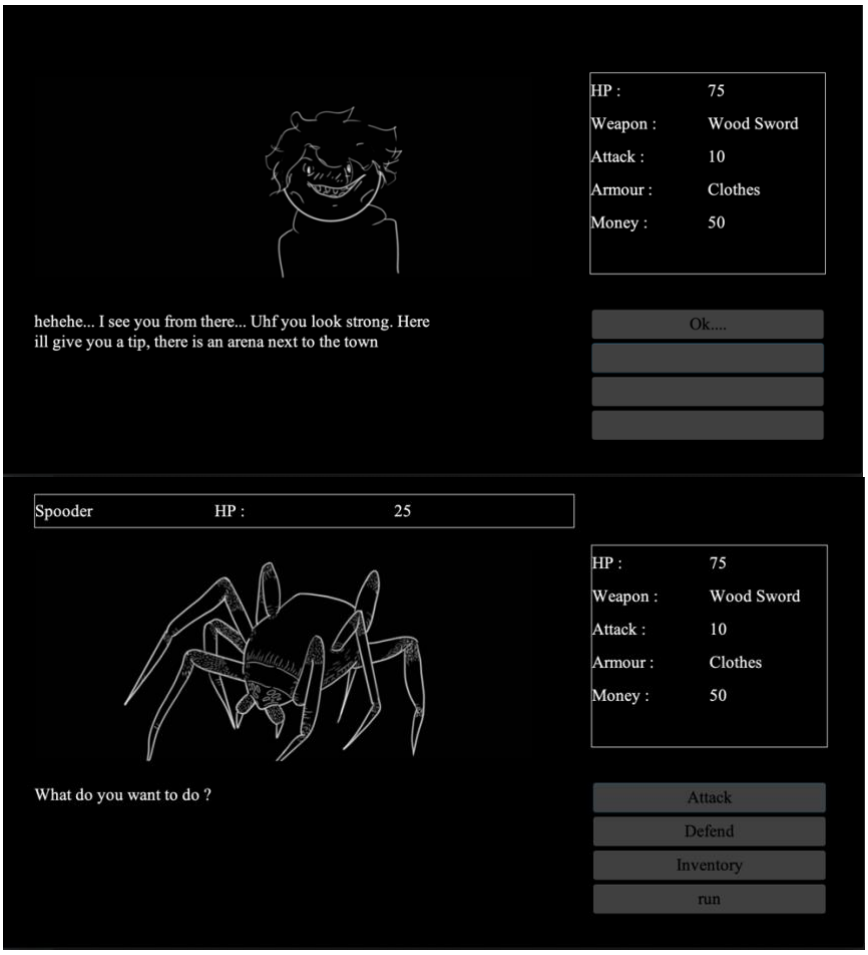
- Buy Item
- Sell Item
- Go back



HP :	75
Weapon :	Wood Sword
Attack :	10
Armour :	Clothes
Money :	50

What do you want to do?

- Eat and Drink
- Talk to the Creepy Guy
- Go back



Guide

- Grab item on the table for starter item
- Talk to the creepy guy in the bar
- If you want to grind either go to arena(unlocked by talking to the creepy guy) or the forest
- If you need to heal you can either buy food from the bar or buy potion from the shop
- Defeat the 5 round in arena so you could go to the maze
- Finish the maze to get “Chunchunmaru”.

Resource

https://www.youtube.com/watch?v=Y5gnsK6PWbk&list=PL_QPQmz5C6WVrrmQaIwtaH23Bg8MEd9PV – This is where I learn how to use java swing and java awt.