ReflectionLogs - MySavings[Mastery]

```java
package Mastery;

import java.util.Scanner;

public class MySavings {

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        // import for user input

        PiggyBank piggy = new PiggyBank(); //vari

        int user_choice;
```

```java
package Mastery;

public class PiggyBank {

    private int penny;
    private int dimes;
    private int nickels;
    private int quarters; //d


    public PiggyBank() { //Ob

        penny = 0;
        nickels = 0;
        dimes = 0;
        quarters = 0;

    }
```

So far I have created two classes, one as piggy bank, and one as Mysavings. I added the ability for user input in the main method, and declared a variable called piggy which I can use to call methods from the other class. In the piggybank class, I declared 3 private integers for each type of coin, and set them equal to 0 in the PiggyBank() object. In the main method, the variable user_choice will be used later as the user chooses their option of what to do.

```java
public void plusPenny() { //constructor method for penny
    penny++;

}

public void plusNickel() { //constructor method for nickels
    nickels++;

}

public void plusDime() { //constructor method for dimes
    dimes++;

}

public void plusQuarter() { //constructor method for quarters
    quarters++;

}

public void takeAllMoneyOut() { //if user chooses to take out all money, then each
    penny = 0;
    nickels = 0;
    dimes = 0;
    quarters = 0;
}

public double gTotal () { //constructor method to properly calculate the total amo

    return (penny * 0.01) + (nickels * 0.05) + (dimes * 0.10) + (quarters * 0.25);

}

public void  showTotal() {
    System.out.printf("Your total in the Bank is: $%.2f\n", gTotal()); //print tot
}
```

```
do { //do while loop to excute this

    System.out.println("1. Show total in bank");
    System.out.println("2. Add a penny");
    System.out.println("3. Add a nickel");
    System.out.println("4. Add a dime");
    System.out.println("5. Add a quarter");
    System.out.println("6. Take all money out");
    System.out.println("0. to quit");
    System.out.println("Enter your choice: ");
    System.out.println("");

    user_choice = input.nextInt();

    switch (user_choice) {

    case 1:
        piggy.showTotal(); //show user total
        break;

    case 2:
        piggy.plusPenny();
        System.out.println("Add a penny.");  //add t
        break;

    case 3:
        piggy.plusNickel(); //add to bank account
        System.out.println("Add a nickel.");
        break;

    case 4:
        piggy.plusDime();
        System.out.println("Add a dime.");  //add to
        break;

    case 5:
        piggy.plusQuarter();
        System.out.println("Add a quarter");  //add
        break;
```

```
        case 6:
            piggy.takeAllMoneyOut(); //make total money = 0
            break;

        case 0:
            System.out.print("Ok, Bye."); //end code
            input.close(); //close the scanner
            break;

        default:
            System.out.println("That wasn't an option, try again!");


        }

    } while (user_choice != 0); //while loop to make sure user_choice
```

I created a do while loop in the main method, and prompted the user to pick an option, from 0-6. In the PiggyBank class, I created constructor methods for each

option, adding a penny, adding a dime, adding a nickel, adding a quarter, taking out all money from the bank, etc. In the gtotal() constructor method, I calculate the total in the bank, and in the takeAllMoneyOut() it removes everything you add, creating a bank account with nothing in it. After creating each method for each option, I created a switch statement which calls a certain constructor method depending on the user's choice. This program will loop until the user’s option is 0, which is quit, which ends the program, printing “ok bye”.