Credit name: Inheritance and Polymorphism
Reflection log: Accounts

```java
public class Customer {
    private String firstName, lastName, street, city, province, postal_code;

    //create String variables street, city, province, postal code


    /**
     * constructor
     * pre: none
     * post: A Customer object has been created.
     * Customer data has been initialized with parameters.
     */
    public Customer(String fName, String lName, String str, String cityy, String prov, String post) //modify constructor to include street, city, province, postal code
    {
        firstName = fName;
        lastName = lName;
        street = str;
        city = cityy;
        province = prov;
        postal_code = post;

        //reflect the changes in the parameter
    }
```

I started by taking the customer code from D2L and modifying the methods as it stated

```java
//create changeCity method that asks the user their city and records city in a variable above

public void changecity()
{
     Scanner input = new Scanner(System.in);
     System.out.println(" what is your city?");
     city =input.nextLine();
}


//create changeStreet method that asks the user their street and records street in a variable above
public void changestreet()
{
     Scanner input = new Scanner(System.in);
     System.out.println(" what is your street?");
     street =input.nextLine();
}
//create changeProvince method that asks the user their province and records province in a variable above
public void changeprov()
{
     Scanner input = new Scanner(System.in);
     System.out.println(" what is your province?");
     province =input.nextLine();
}
//create changePostalCode method that asks the user their postal code and records postal code in a variable above
public void changepost()
{
     Scanner input = new Scanner(System.in);
     System.out.println(" what is your postal code ?");
     postal_code =input.nextLine();
}
```

Then I updated my toString

```java
public String toString() {
    String custString;

    //update this string so that it contains the street, city, province, and postal code
    custString = firstName + " " + lastName + " ,your street is " + street +" ,your city is " + city + " ,your province is " + province + " ,and your postal code is " + postal_code;
    return(custString);
}
```

Next I moved on to account

```
//Create a changeAddress() method that calls the cust object from above in order to change
//Street, city, province, postalCode


public void changeAdress()
{
    cust.changecity();
    cust.changepost();
    cust.changeprov();
    cust.changestreet();
}
```

I added the change address method

```
package Account_PersonalAcct;

public class BusinessAcct extends Account{

    public BusinessAcct(double bal, String fName, String lName, String str, String cityy, String prov, String post) {
        super(bal, fName, lName, str, cityy, prov, post);

        if (bal >= 500)
        {

        }
        else if (500 >= bal)
        {
            withdrawal(10);
            System.out.println("As you didn't have 500 dollars in your Business balance, 10 dollars has been withdrawn");
        }


        // TODO Auto-generated constructor stub
    }


    public String toString() {

        return "The business account ID is " + super.toString();
}



}
```

Next I created the business account class, and had it check if the balance was over 500, if it wasn't then 10 dollars were removed from the balance

```
package Account_PersonalAcct;

public class personalAcct extends Account{

    public personalAcct(double bal, String fName, String lName, String str, String cityy, String prov, String post) {
        super(bal, fName, lName, str, cityy, prov, post);

        if (100 > bal)
        {
            withdrawal(2);
            System.out.println("As you didn't have 100 dollars in your personal balance, 2 dollars has been withdrawn");
        }

        // TODO Auto-generated constructor stub
    }


    public String toString() {

            return "The personal account ID is " + super.toString();
    }



}
```

Finally I created the personal account class, and had it check if it had 100 dollars and if not it removed 2 dollars from the account.

```
package Account_PersonalAcct;

public class AccountTest {

    public static void main(String[] args) {
        // TODO Auto-generated method stub



        personalAcct pAct = new personalAcct(101, "logan", "sigh", "do", "moscow", "california", "43 ");
        BusinessAcct bAct = new BusinessAcct(700, "grayson", "why", "headers", " Bangkok" , "japan  ", "0.1134 ");
        Account act = new Account(75, "bob", "joe", "this", "bankon", "hell", "sighh");

        System.out.println(pAct);
        System.out.println(" ");
        System.out.println(bAct);

        System.out.println(act);

        System.out.println(act.getBalance());
        System.out.println(act.getID());
        act.deposit(5);
        System.out.println(act.getBalance());




    }

}
```

At the end I created my test class and made it test the methods to see if they worked, they did.