Instructions:

1. Follow what it says below, please answer and complete it all ☺

**TASK 7**

**From Workshop 5**

**Exercise 4**

## Credit Card Problem 1

* You have a credit card bill for £500, but can only afford to pay £100 pounds per month.
* Each month the bank will charge 10% on any outstanding balance.
* How much do you still owe after 3 months payments?
* Design an activity diagram to represent an algorithm for answering these questions.
  + Convert the activity diagram to code and implement it.
  + Use Jeliot to help perform a dry run on your code.
* HINT – A common trick in programming is to solve a new problem by reusing a solution to a similar problem.
  + How is the credit card exercise like the bouncing ball problem?
  + How is it different?

public class Program7{

public static void main(String args[]){

double creditCardBill =500.0d;

int afford = 100;

double remainbal =0.0d;

int month =1;

while(month<=3){

if(month==1){

creditCardBill = creditCardBill-100;

remainbal =(creditCardBill/100)\*10;

}

else if(month==2){

creditCardBill = (creditCardBill+remainbal) -100;

remainbal =(creditCardBill/100)\*10;

}

else if(month==3){

creditCardBill = (creditCardBill+remainbal) -100;

remainbal =(creditCardBill/100)\*10;

}

month++;

}

System.out.println(" Your Remaining balance after 3 months are : "+creditCardBill);

}//end of main

}