Assignment 3

**Calculate premium based on age of a person.**

**If**

1. **Age > = 30 then premium is age\*50**
2. **Age between 30 and 50 then premium is age\*60**
3. **3)age between 50 and 60 then premium is age\*70**
4. **Age above 60 then premium is age\*75**

**However if person is female then 20% increase premium.**

import java.util.Scanner;

class Insurance {

protected int age;

protected double premium;

Insurance(int age) {

this.age = age;

}

void calculatePremium() {

if (age >= 30 && age < 50) {

premium = age \* 60;

}

else if (age >= 50 && age < 60) {

premium = age \* 70;

}

else if (age >= 60) {

premium = age \* 75;

}

else {

premium = age \* 50;

}

}

double getPremium() {

return premium;

}

}

// Male class extending Insurance

class Male extends Insurance {

Male(int age) {

super(age);

}

@Override

void calculatePremium() {

super.calculatePremium();

}

}

// Female class extending Insurance

class Female extends Insurance {

Female(int age) {

super(age);

}

@Override

void calculatePremium() {

super.calculatePremium();

premium += premium \* 0.20;

}

}

// Main class for user input and premium calculation

class MainPremium {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Enter age: ");

int age = sc.nextInt();

System.out.print("Enter gender (male/female): ");

String gender = sc.next().toLowerCase();

Insurance insObj;

if (gender.equals("male")) {

insObj = new Male(age);

}

else if (gender.equals("female")) {

insObj = new Female(age);

}

else {

System.out.println("Invalid gender input.");

sc.close();

return;

}

insObj.calculatePremium();

System.out.println("The calculated premium is: " + insObj.getPremium());

sc.close();

}

}

Output:

