**public class TestPetrol{**

**public static void main(String[] arg){**

String str = JOptionPane.showInputDialog("COP2210 Petrol Station"

+ "\nEnter the type of petrol"

+ "\nR - for regular gas"

+ "\nP - for premium gas"

+ "\nS - for super gas");

char ch = str.charAt(0);

str = JOptionPane.showInputDialog("Enter the amount of gas to be purchased");

float amount = Float.parseFloat (str);

Petrol p = new Petrol(ch, amount);

p.calculateCost();

JOptionPane.showMessageDialog(null, p.toString());

}

}

**class Petrol{**

char gas;

String type, free;

static final float REGULAR\_GAS = 2.99f;

static final float PREMIUM\_GAS = 3.15f;

static final float SUPER\_GAS = 3.25f;

static final String REGULAR\_WASH = "You get free wash excluding under carriage and wheels";

static final String PREMIUM\_WASH = "You get free wash excluding under carriage";

static final String SUPER\_WASH = "You get free super wash";

static final String NO\_REWARD = "You do not get any free reward";

double amount, cost;

**Petrol(char ch, double a){**

gas = ch;

amount = a;

}

**void calculateCost(){**

switch(gas){

case 'r':

case 'R':

type = "Regular";

cost = amount \* REGULAR\_GAS;

if (amount >= 10) free = REGULAR\_WASH;

else free = NO\_REWARD;

break;

case 'p':

case 'P':

type = "Premium";

cost = amount \* PREMIUM\_GAS;

if (amount >= 10)free = PREMIUM\_WASH;

else free = NO\_REWARD;

break;

case 's':

case 'S':

type = "Super";

cost = amount \* SUPER\_GAS;

if (amount >= 10)free = SUPER\_WASH;

else free = NO\_REWARD;

break;

default:

type = "Unknown";

break;

}

}

**public String toString(){**

if (type.equals("Unknown"))

return "Petrol is " + type + " cannot be served";

else

return "The type of petrol that will be served is " + type

+"\nYour bill is: $" + cost + "\n" + free;

}

}