import java.util.Scanner;

public class App

{

/\*

\* Name: Harvey MacLeary

\* Date: 3/10/2022

\* Description: "This program receives user inputs in the form of integer values

\* and prints the relevant output based on nested if statements."

\* Version: 1.0

\*/

public static void main(String[] args) throws Exception

{

Scanner input = new Scanner(System.in); // Scanner declared

int vol = 0;

int temp = 0;

float pressure = 0f; // Variables initialised

System.out.print("Please enter a volume (m^3): ");

vol = input.nextInt();

System.out.print("Please enter a temperature (deg C): ");

temp = input.nextInt(); // User inputs received

if (vol == 1)

{

switch (temp) // Case statements print relevant pressures based on user input

{

case 25:

pressure = 1f;

System.out.println("Pressure = " + pressure + "N/m^2.");

break;

case 50:

pressure = 1.2f;

System.out.println("Pressure = " + pressure + "N/m^2.");

break;

case 75:

pressure = 1.4f;

System.out.println("Pressure = " + pressure + "N/m^2.");

break;

case 100:

pressure = 1.6f;

System.out.println("Pressure = " + pressure + "N/m^2.");

break;

default:

System.out.println("Unaccepted value.");

}

}

else if (vol == 2)

{

if (temp == 25) // Nested if statement prints relevant pressure based on input

{

pressure = 1.15f;

System.out.println("Pressure = " + pressure + "N/m^2.");

}

else

{

System.out.println("Unaccepted value.");

}

}

else if (vol == 3)

{

if (temp == 25) // Nested if statement [2]

{

pressure = 1.3f;

System.out.println("Pressure = " + pressure + "N/m^2.");

}

else

{

System.out.println("Unaccepted value.");

}

}

else

{

System.out.println("Unaccepted value.");

}

System.exit(0);

}

}

Text

Description automatically generated