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Section : bscs 5

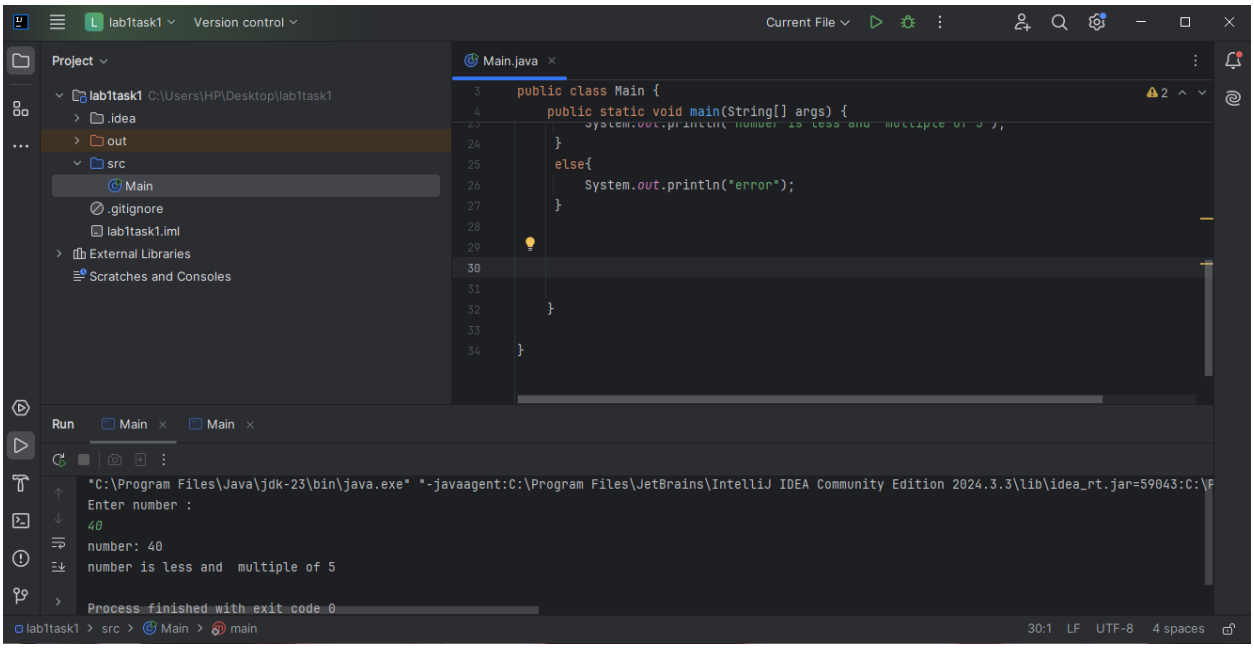
Lab task 1

Q1 :

Code :

```
import java.util.Scanner;//TIP To <b>Run</b> code, press <shortcut
actionId="Run"/> or

public class Main {
    public static void main(String[] args) {
       //TIP Press <shortcut actionId="ShowIntentionActions"/> with your
caret at the highlighted text
        // to see how IntelliJ IDEA suggests fixing it.
        Scanner obj=new Scanner(System.in);
     int apple;
     System.out.println("Enter number : ");

     apple=obj.nextInt();
     System.out.println("number: "+apple);
     if(apple>50 && apple%5==0){
         System.out.println("number is greater and multiple of 5");
     }
     else if(apple>50 && apple%5!=0){
         System.out.println("number is greater and not multiple of 5");
     }
     else if(apple<50 && apple%5!=0){
         System.out.println("number is less and not multiple of 5");
     }
     else if(apple<50 && apple%5==0){
         System.out.println("number is less and  multiple of 5");
     }
     else{
         System.out.println("error");
     }




    }

}
```

code output :

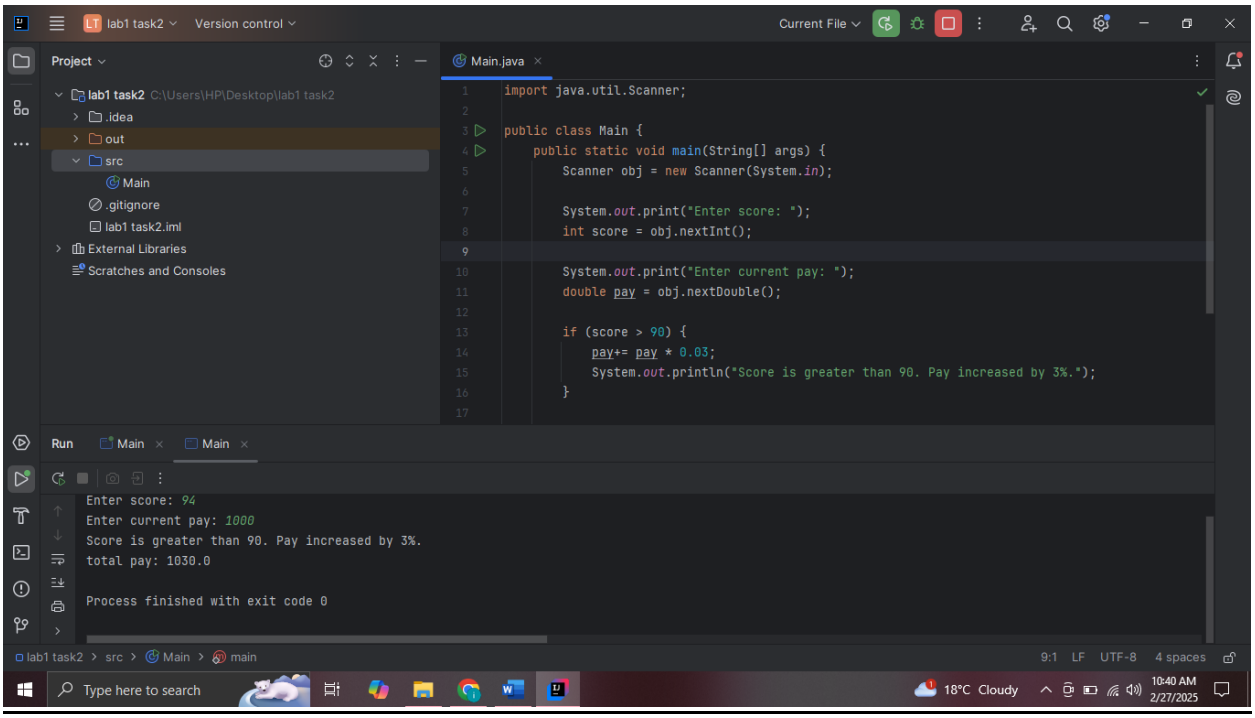


Q2 :

Code :

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner obj = new Scanner(System.in);

        System.out.print("Enter score: ");
        int score = obj.nextInt();

        System.out.print("Enter current pay: ");
        double pay = obj.nextDouble();

        if (score > 90) {
            pay+= pay * 0.03;
            System.out.println("Score is greater than 90. Pay increased by
3%.");
        }

        System.out.println("total pay: " +pay);
    }
}
```

code output :

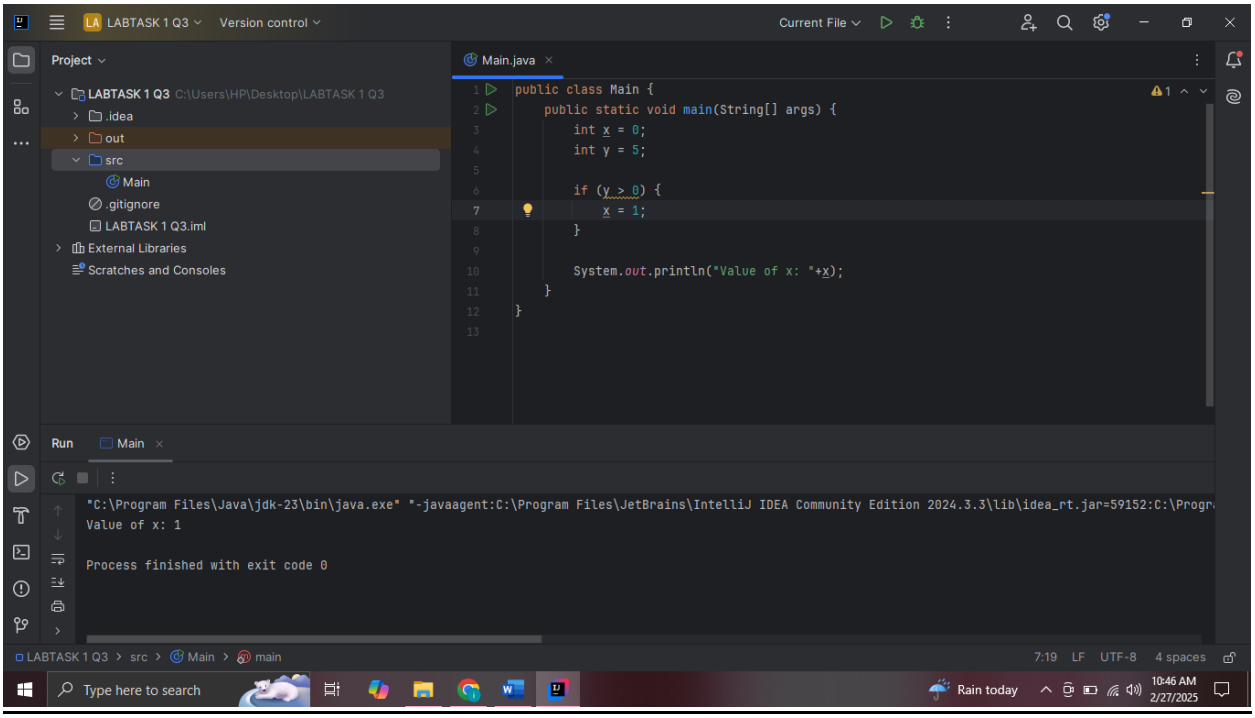


Q3 :

Code :

```java
public class Main {
    public static void main(String[] args) {
        int x = 0;
        int y = 5;

        if (y > 0) {
            x = 1;
        }

        System.out.println("Value of x: "+x);
    }
}
```

output :

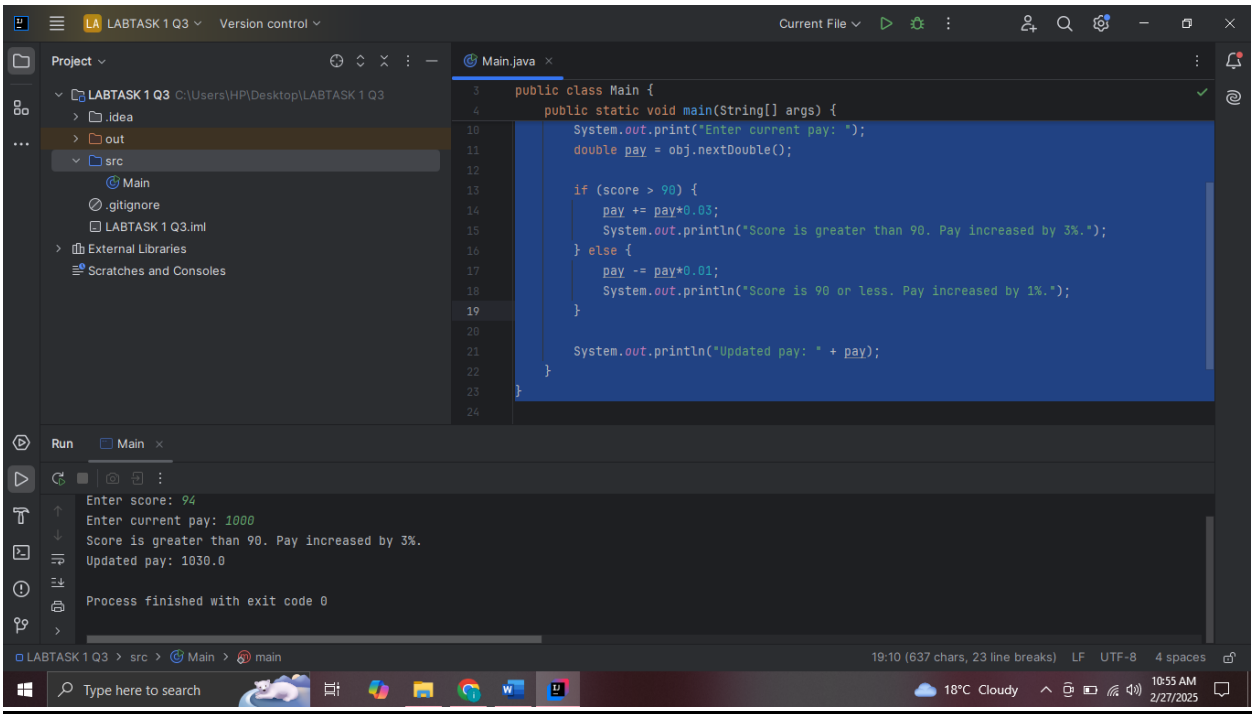


Q4 :

code :

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner obj = new Scanner(System.in);

        System.out.print("Enter score: ");
        int score = obj.nextInt();

        System.out.print("Enter current pay: ");
        double pay = obj.nextDouble();

        if (score > 90) {
            pay += pay*0.03;
            System.out.println("Score is greater than 90. Pay increased by
3%.");
        } else {
            pay -= pay*0.01;
            System.out.println("Score is 90 or less. Pay increased by 1%.");
        }

        System.out.println("Updated pay: " + pay);
    }
}
```

output :



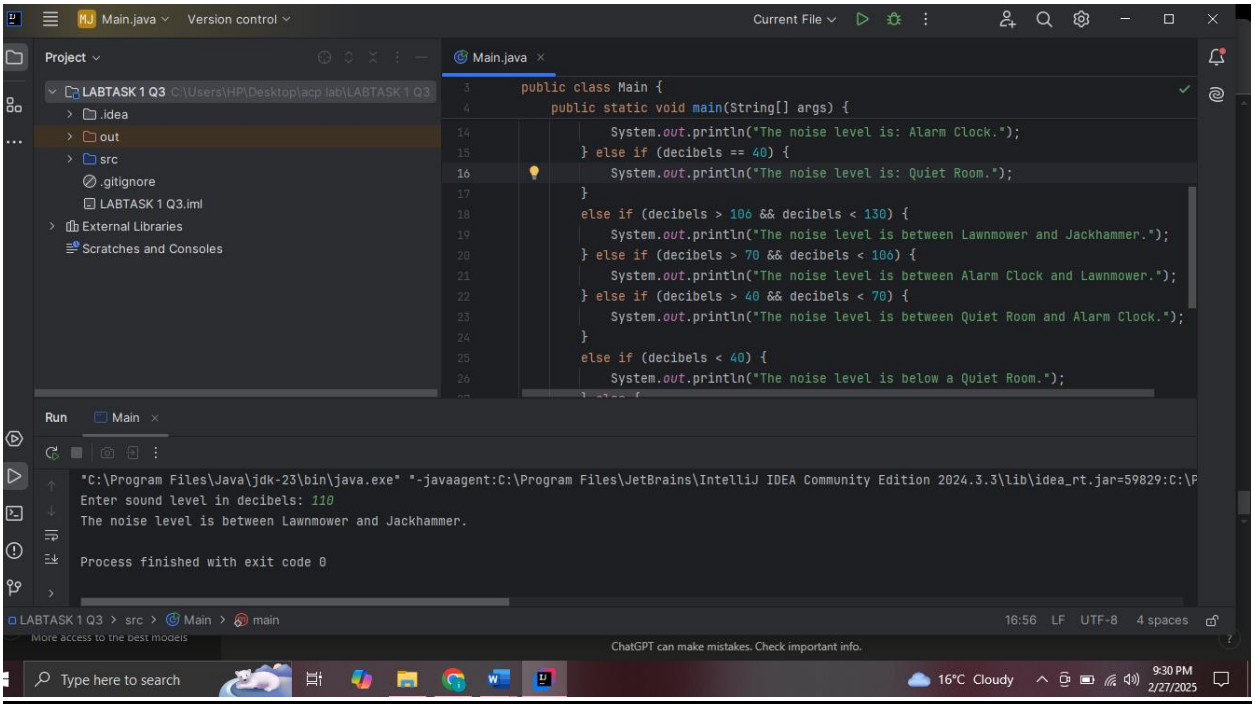
Q5 :

Code :

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter sound level in decibels: ");
        int decibels = scanner.nextInt();

        if (decibels == 130) {
            System.out.println("The noise level is: Jackhammer.");
        } else if (decibels == 106) {
            System.out.println("The noise level is: Lawnmower.");
        } else if (decibels == 70) {
            System.out.println("The noise level is: Alarm Clock.");
        } else if (decibels == 40) {
            System.out.println("The noise level is: Quiet Room.");
        }
        else if (decibels > 106 && decibels < 130) {
            System.out.println("The noise level is between Lawnmower and
Jackhammer.");
        } else if (decibels > 70 && decibels < 106) {
            System.out.println("The noise level is between Alarm Clock and
Lawnmower.");
        } else if (decibels > 40 && decibels < 70) {
            System.out.println("The noise level is between Quiet Room and
Alarm Clock.");
```

```
        }
        else if (decibels < 40) {
            System.out.println("The noise level is below a Quiet Room.");
        } else {
            System.out.println("The noise level is above a Jackhammer.");
        }
    }
}
```

output :



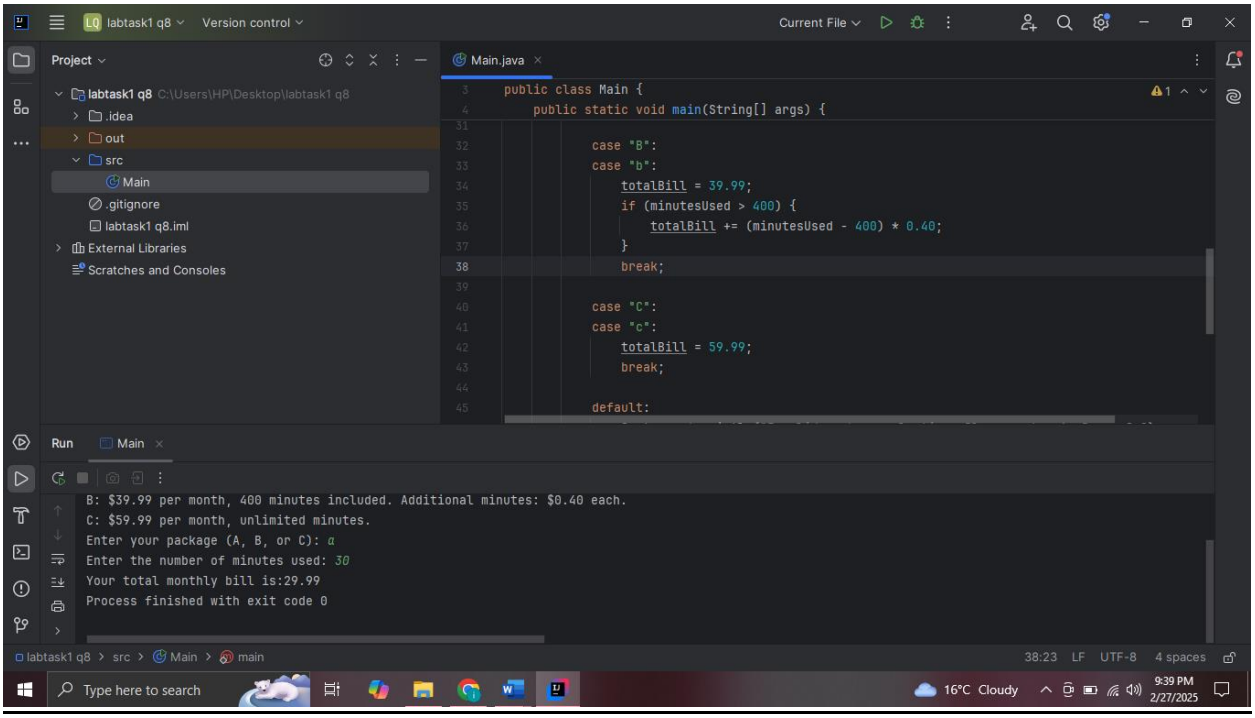
Q 8:

Code :

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);


        System.out.println("Mobile Service Provider Packages:");
        System.out.println("A: $29.99 per month, 200 minutes included.
Additional minutes: $0.45 each.");
        System.out.println("B: $39.99 per month, 400 minutes included.
Additional minutes: $0.40 each.");
        System.out.println("C: $59.99 per month, unlimited minutes.");
```

```
        System.out.print("Enter your package (A, B, or C): ");
        String packageType = scanner.nextLine();

        System.out.print("Enter the number of minutes used: ");
        int minutesUsed = scanner.nextInt();

        double totalBill = 0.0;


        switch (packageType) {
            case "A":
            case "a":
                totalBill = 29.99;
                if (minutesUsed > 200) {
                    totalBill += (minutesUsed - 200) * 0.45;
                }
                break;

            case "B":
            case "b":
                totalBill = 39.99;
                if (minutesUsed > 400) {
                    totalBill += (minutesUsed - 400) * 0.40;
                }
                break;

            case "C":
            case "c":
                totalBill = 59.99;
                break;

            default:
                System.out.println("Invalid package selection. Please enter
A, B, or C.");
                scanner.close();
                return;
        }


        System.out.printf("Your total monthly bill is:"+ totalBill);

        scanner.close();
    }
}
```

output :



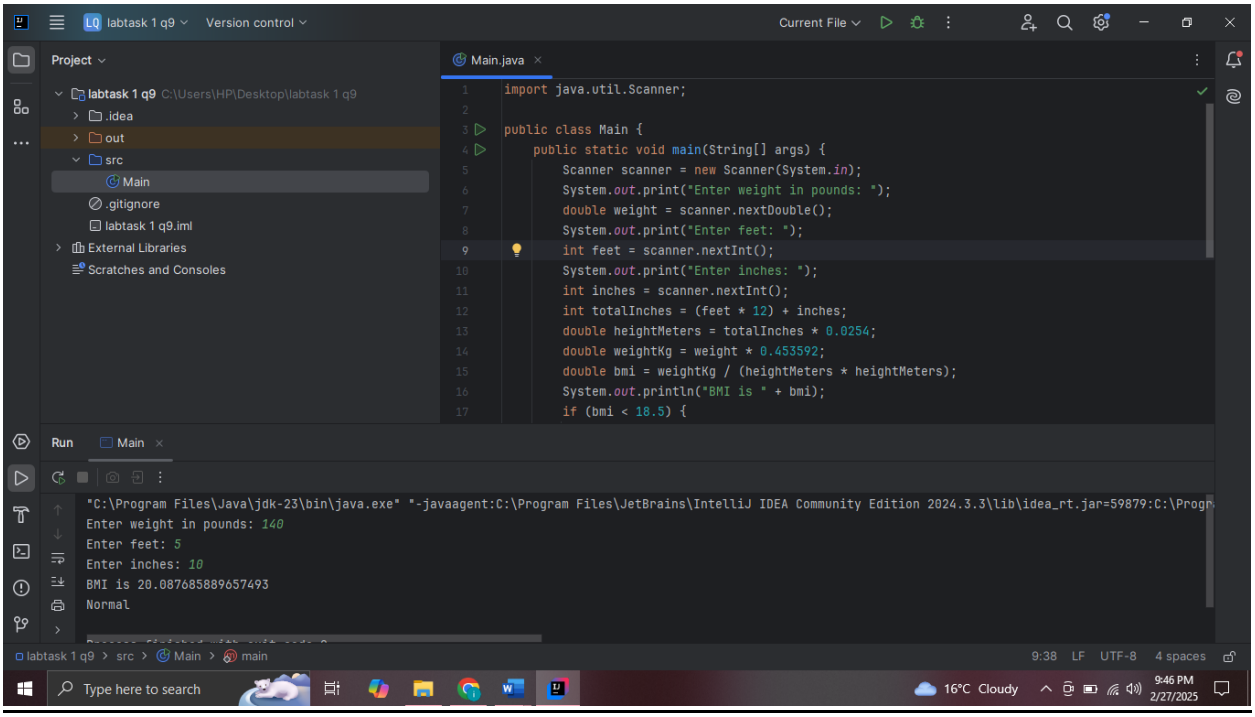
Q 9 :

Code :

```java
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter weight in pounds: ");
        double weight = scanner.nextDouble();
        System.out.print("Enter feet: ");
        int feet = scanner.nextInt();
        System.out.print("Enter inches: ");
        int inches = scanner.nextInt();
        int totalInches = (feet * 12) + inches;
        double heightMeters = totalInches * 0.0254;
        double weightKg = weight * 0.453592;
        double bmi = weightKg / (heightMeters * heightMeters);
        System.out.println("BMI is " + bmi);
        if (bmi < 18.5) {
            System.out.println("Underweight");
        } else if (bmi < 24.9) {
            System.out.println("Normal");
        } else if (bmi < 29.9) {
            System.out.println("Overweight");
        } else {
            System.out.println("Obese");
        }

        scanner.close();
```

```
    }
}
```

output :



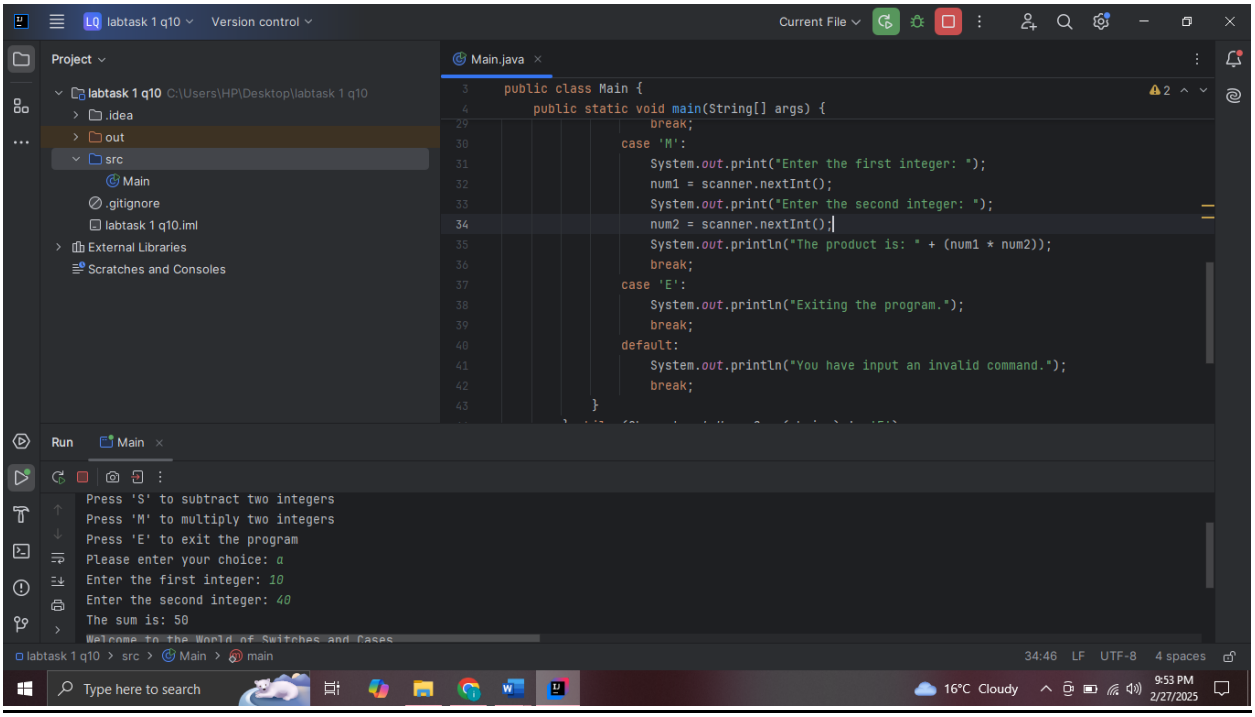
Q10:

Code :

```
import java.util.Scanner;

public class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        char choice;
        do {
            System.out.println("Welcome to the World of Switches and Cases");
            System.out.println("Press 'A' to add two integers");
            System.out.println("Press 'S' to subtract two integers");
            System.out.println("Press 'M' to multiply two integers");
            System.out.println("Press 'E' to exit the program");
            System.out.print("Please enter your choice: ");
            choice = scanner.next().charAt(0);
            switch (Character.toUpperCase(choice)) {
                case 'A':
                    System.out.print("Enter the first integer: ");
                    int num1 = scanner.nextInt();
```

```
                    System.out.print("Enter the second integer: ");
                    int num2 = scanner.nextInt();
                    System.out.println("The sum is: " + (num1 + num2));
                    break;
                case 'S':
                    System.out.print("Enter the first integer: ");
                    num1 = scanner.nextInt();
                    System.out.print("Enter the second integer: ");
                    num2 = scanner.nextInt();
                    System.out.println("The difference is: " + (num1 -
num2));
                    break;
                case 'M':
                    System.out.print("Enter the first integer: ");
                    num1 = scanner.nextInt();
                    System.out.print("Enter the second integer: ");
                    num2 = scanner.nextInt();
                    System.out.println("The product is: " + (num1 * num2));
                    break;
                case 'E':
                    System.out.println("Exiting the program.");
                    break;
                default:
                    System.out.println("You have input an invalid command.");
                    break;
            }
        } while (Character.toUpperCase(choice) != 'E');


    }
}
```

output :

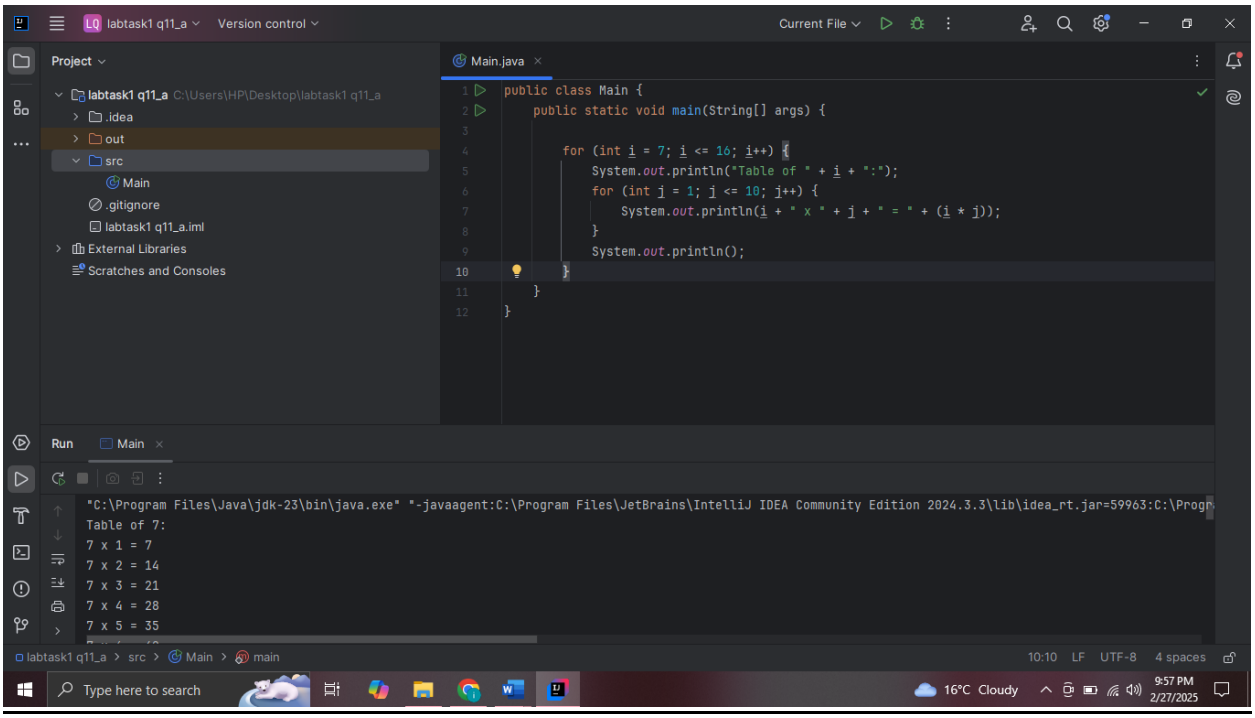


Q 11 (A) :

Code :

```
public class Main {
    public static void main(String[] args) {

        for (int i = 7; i <= 16; i++) {
            System.out.println("Table of " + i + ":");
            for (int j = 1; j <= 10; j++) {
                System.out.println(i + " x " + j + " = " + (i * j));
            }
            System.out.println();
        }
    }
}
```

output :

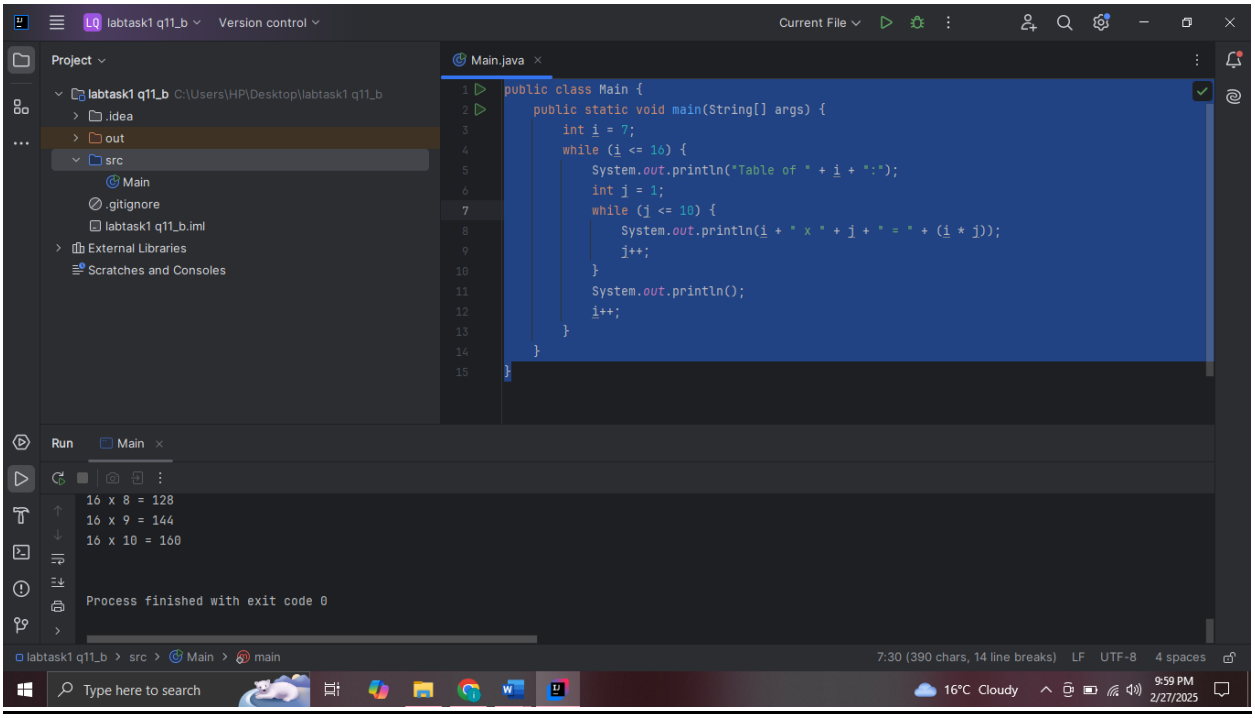


B part :

Code :

```java
public class Main {
    public static void main(String[] args) {
        int i = 7;
        while (i <= 16) {
            System.out.println("Table of " + i + ":");
            int j = 1;
            while (j <= 10) {
                System.out.println(i + " x " + j + " = " + (i * j));
                j++;
            }
            System.out.println();
            i++;
        }
    }
}
```

output :

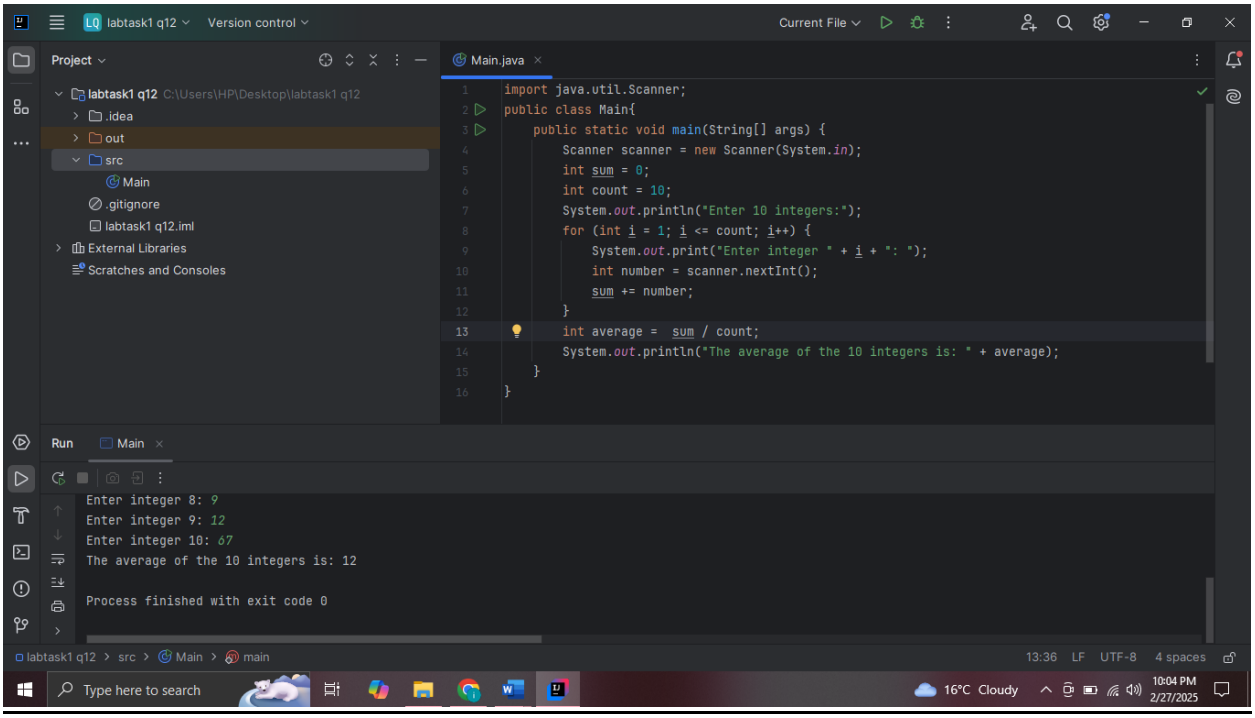


Q 12 :

Code :

```
import java.util.Scanner;
public class Main{
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int sum = 0;
        int count = 10;
        System.out.println("Enter 10 integers:");
        for (int i = 1; i <= count; i++) {
            System.out.print("Enter integer " + i + ": ");
            int number = scanner.nextInt();
            sum += number;
        }
        int average =  sum / count;
        System.out.println("The average of the 10 integers is: " + average);
    }
}
```

output :

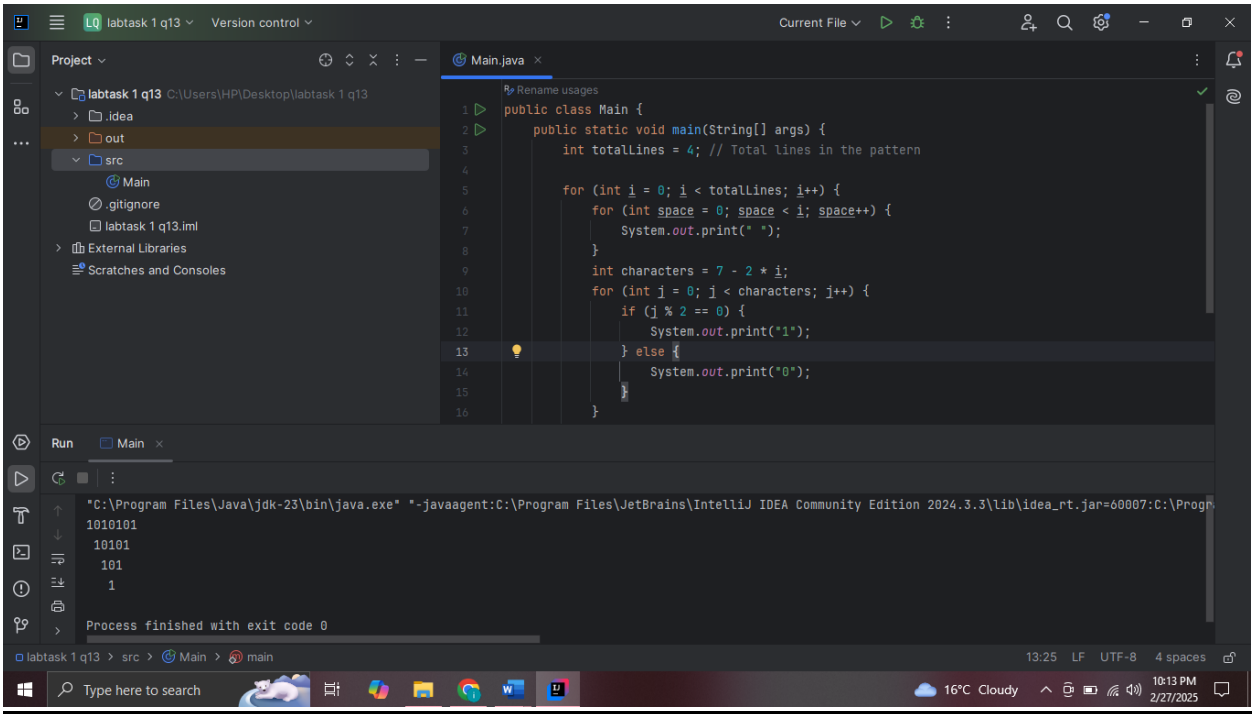


Q 13 :

Code :

```
public class Main {
    public static void main(String[] args) {
        int totalLines = 4; // Total lines in the pattern

        for (int i = 0; i < totalLines; i++) {
            for (int space = 0; space < i; space++) {
                System.out.print(" ");
            }
            int characters = 7 - 2 * i;
            for (int j = 0; j < characters; j++) {
                if (j % 2 == 0) {
                    System.out.print("1");
                } else {
                    System.out.print("0");
                }
            }
            System.out.println();
        }
    }
}
```

output :


labtask 1 q13
Version control
Current File
Project
labtask 1 q13 C:\Users\HP\Desktop\labtask 1 q13
.idea
out
src
Main
.gitignore
labtask 1 q13.iml
External Libraries
Scratches and Consoles
Main.java
Rename usages
public class Main {
public static void main(String[] args) {
int totalLines = 4; // Total lines in the pattern
for (int i = 0; i < totalLines; i++) {
for (int space = 0; space < i; space++) {
System.out.print(" ");
}
int characters = 7 - 2 * i;
for (int j = 0; j < characters; j++) {
if (j % 2 == 0) {
System.out.print("1");
} else {
System.out.print("0");
}
}
Run
Main
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2024.3.3\lib\idea_rt.jar=60007:C:\Progr
1010101
10101
101
1
Process finished with exit code 0
labtask 1 q13 > src > Main > main
13:25 LF UTF-8 4 spaces
Type here to search
16°C Cloudy
10:13 PM
2/27/2025