

# Assignment no: 1

## Part 1: If-Else Questions

```
package Ass2;
import java.util.Scanner;
public class Ass1 {

    public static void main(String[] args) {

        Scanner s = new Scanner(System.in);

        System.out.print("Enter a number: ");
        int number = s.nextInt();

        if (number % 2 == 0) {
            System.out.println(number + " is even.");
        } else {
            System.out.println(number + " is odd.");
        }

    }

}
```

**OUTPUT :**

```
Enter a number: 4
4 is even.
```

## Assignment no: 2

```
package ass2;

import java.util.Scanner;

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

        System.out.print("Enter the first number: ");
        int num1 = scanner.nextInt();

        System.out.print("Enter the second number: ");
        int num2 = scanner.nextInt();

        System.out.print("Enter the third number: ");
        int num3 = scanner.nextInt();
        int largest;
        if (num1 >= num2 && num1 >= num3) {
            largest = num1;
        } else if (num2 >= num1 && num2 >= num3) {
            largest = num2;
        } else {
            largest = num3;
        }

        System.out.println("The largest number is: " + largest);
    }
}
```

### Output :

```
Enter the first number: 2
Enter the second number: 5
Enter the third number: 21
The largest number is: 21
```

## Assignment no: 3

```
package Ass2;
import java.util.Scanner;
public class ass3 {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a character: ");
        char ch = scanner.next().toLowerCase().charAt(0);

        if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u')
        {
            System.out.println(ch + " is a vowel.");
        } else if (Character.isLetter(ch)) {
            System.out.println(ch + " is a consonant.");
        } else {
            System.out.println("Invalid input.");
        }
    }
}
```

OUTPUT :

```
Enter a character: a
a is a vowel.
```

## Assignment no: 4

```
package Ass2;
import java.util.Scanner;
public class Ass4 {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter marks (0-100): ");
        int marks = scanner.nextInt();

        if (marks >= 90 && marks <= 100) {
            System.out.println("Grade: A");
        } else if (marks >= 80) {
            System.out.println("Grade: B");
        } else if (marks >= 70) {
            System.out.println("Grade: C");
        } else if (marks >= 60) {
            System.out.println("Grade: D");
        } else {
            System.out.println("Grade: Fail");
        }
    }
}
```

### OUTPUT:

```
Enter marks (0-100): 85
Grade: B
OR
Enter marks (0-100): 35
Grade: Fail
```

## Assignment no: 5

```
package Ass2;
import java.util.Scanner;
public class Ass5 {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a year: ");
        int year = scanner.nextInt();

        if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0)) {
            System.out.println(year + " is a leap year.");
        } else {
            System.out.println(year + " is not a leap year.");
        }
    }
}
```

### OUTPUT:

```
Enter a year: 2024
2024 is a leap year.
```

## Assignment no: 6

```
package swapnumber;
import java.util.Scanner;

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

        System.out.print("Enter an integer: ");
        int number = scanner.nextInt();

        if (number > 0) {
            System.out.println(number + " is a positive number.");
        } else if (number < 0) {
            System.out.println(number + " is a negative number.");
        } else {
            System.out.println("The number is zero.");
        }
    }
}
```

### Output:

Enter an integer: 21  
21 is a positive number.

# Assignment no: 7

## Part 2: Switch Case Questions

```
package swapnumber;

import java.util.Scanner;

public class SimpleCalculator {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the first number: ");
        double num1 = scanner.nextDouble();
        System.out.print("Enter the second number: ");
        double num2 = scanner.nextDouble();
        System.out.print("Enter an operator (+, -, *, /): ");
        char operator = scanner.next().charAt(0);
        double result;
        switch (operator) {
            case '+':
                result = num1 + num2;
                System.out.println("The result of " + num1 + " + " + num2 + " is: " + result);
                break;
            case '-':
                result = num1 - num2;
                System.out.println("The result of " + num1 + " - " + num2 + " is: " + result);
                break;
            case '*':
                result = num1 * num2;
                System.out.println("The result of " + num1 + " * " + num2 + " is: " + result);
                break;
            case '/':
                if (num2 != 0) {
                    result = num1 / num2;
                    System.out.println("The result of " + num1 + " / " + num2 + " is: " + result);
                } else {
                    System.out.println("Error: Division by zero is not allowed.");
                }
                break;
            default:
                System.out.println("Error: Invalid operator entered.");
        }
    }
}
```

### Output:

```
Enter the first number: 5
Enter the second number: 6
Enter an operator (+, -, *, /): *
The result of 5.0 * 6.0 is: 30.0
```

## Assignment no: 8

```
package Ass2;
import java.util.Scanner;

public class Ass8 {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number (1-7): ");
        int day = scanner.nextInt();

        switch (day) {
            case 1: System.out.println("Sunday"); break;
            case 2: System.out.println("Monday"); break;
            case 3: System.out.println("Tuesday"); break;
            case 4: System.out.println("Wednesday"); break;
            case 5: System.out.println("Thursday"); break;
            case 6: System.out.println("Friday"); break;
            case 7: System.out.println("Saturday"); break;
            default: System.out.println("Invalid input.");
        }
    }
}
```

### OUTPUT:

```
Enter a number (1-7): 6
Friday
```



## Assignment no: 9

```
package Ass2;
import java.util.Scanner;
public class Asss9 {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a number (1-12): ");
        int month = scanner.nextInt();

        switch (month) {
            case 1: System.out.println("January"); break;
            case 2: System.out.println("February"); break;
            case 3: System.out.println("March"); break;
            case 4: System.out.println("April"); break;
            case 5: System.out.println("May"); break;
            case 6: System.out.println("June"); break;
            case 7: System.out.println("July"); break;
            case 8: System.out.println("August"); break;
            case 9: System.out.println("September"); break;
            case 10: System.out.println("October"); break;
            case 11: System.out.println("November"); break;
            case 12: System.out.println("December"); break;
            default: System.out.println("Invalid input.");
        }
    }
}
```

### OUTPUT:

```
Enter a number (1-12): 8
August
```

## Assignment no: 10

```
package Ass2;
import java.util.Scanner;
public class Ass10 {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter traffic light color (red, yellow, green): ");
        String color = scanner.next().toLowerCase();

        switch (color) {
            case "red": System.out.println("Stop"); break;
            case "yellow": System.out.println("Get Ready");
break;

            case "green": System.out.println("Go"); break;
            default: System.out.println("Invalid color.");
        }

    }
}
```

### OUTPUT:

```
Enter traffic light color (red, yellow, green): red
Stop
```