

## **IT & Computer Science**

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## **Software Construction and Development**

### **6th-Semester**

### **Lab 02**

## Lab

### Exercise:

#### 01. Odd Even checker:

```
02. import java.util.Scanner;
03.
04. class EvenOddChecker {
05.     public static void main(String[] args) {
06.         Scanner scanner = new Scanner(System.in);
07.         System.out.print("Enter a number: ");
08.         int number = scanner.nextInt();
09.         if (number % 2 == 0) {
10.             System.out.println("Even");
11.         } else {
12.             System.out.println("Odd");
13.         }
14.         scanner.close();
15.     }
16. }
```

#### Output:

```
$?) { java EvenOddChecker }
Enter a number: 6
Even
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> cd "
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac
er.java } ; if ($?) { java EvenOddChecker }
Enter a number: 5
Odd
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> 
```

#### 2. Under 18 Voter Eligibility:

```
import java.util.Scanner;

class VotingEligibility {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter your age: ");
        int age = scanner.nextInt();
        if (age >= 18) {
            System.out.println("Eligible to vote");
        } else {
            System.out.println("Not eligible to vote");
        }
    }
}
```

```

    }
    scanner.close();
}
}

```

### Output:

```

C:\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> java VotingEligibility.java
Enter your age: 20
Eligible to vote
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> java VotingEligibility.java
Enter your age: 15
Not eligible to vote
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03>

```

### 3. Grade Calculator:

```

import java.util.Scanner;

class GradeCalculator {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter your score: ");
        int score = scanner.nextInt();
        if (score >= 90) {
            System.out.println("Grade: A");
        } else if (score >= 80) {
            System.out.println("Grade: B");
        } else if (score >= 70) {
            System.out.println("Grade: C");
        } else if (score >= 60) {
            System.out.println("Grade: D");
        } else {
            System.out.println("Grade: F");
        }
        scanner.close();
    }
}

```

## Output:

```
) { javac GradeCalculator.java } ; if ($?) { java GradeCalculator }
Enter your score: 88
Grade: B
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> cd "c:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac GradeCalculator.java } ; if ($?) { java GradeCalculator }
Enter your score: 49
Grade: F
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> cd "c:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac GradeCalculator.java } ; if ($?) { java GradeCalculator }
Enter your score: 70
Grade: C
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> █
```

## 4. Traffic light system

```
import java.util.Scanner;

class TrafficLight {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter traffic light number (1-Red, 2-Yellow, 3-Green): ");
        int light = scanner.nextInt();
        switch (light) {
            case 1:
                System.out.println("Stop");
                break;
            case 2:
                System.out.println("Get Ready");
                break;
            case 3:
                System.out.println("Go");
                break;
            default:
                System.out.println("Invalid input");
        }
        scanner.close();
    }
}
```

## Output:

```
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> cd ..
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac
.java } ; if ($?) { java TrafficLight }
Enter traffic light number (1-Red, 2-Yellow, 3-Green): 2
Get Ready
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> cd ..
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac
.java } ; if ($?) { java TrafficLight }
Enter traffic light number (1-Red, 2-Yellow, 3-Green): 1
Stop
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> 
```

## 5. Months Printer:

```
import java.util.Scanner;

class MonthPrinter {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter month 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 month number");
        }
        scanner.close();
    }
}
```

### Output:

```
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac
.java } ; if ($?) { java MonthPrinter }
Enter month number (1-12): 6
June
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> cd
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac
.java } ; if ($?) { java MonthPrinter }
Enter month number (1-12): 3
March
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> cd
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { javac
.java } ; if ($?) { java MonthPrinter }
Enter month number (1-12): 12
December
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> █
```

### 6. Sum of Even number from 1 to 50:

```
class SumEvenNumbers {
    public static void main(String[] args) {
        int sumEven = 0, i = 2;
        while (i <= 50) {
            sumEven += i;
            i += 2;
        }
        System.out.println("Sum of even numbers from 1 to 50: " + sumEven);
    }
}
```

### Output:

```
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { java
rs.java } ; if ($?) { java SumEvenNumbers }
Sum of even numbers from 1 to 50: 650
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> █
```

## 7. Sum Of All Positive Integer Number:

```
import java.util.Scanner;

class SumPositiveNumbers {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int sum = 0, input;
        do {
            System.out.print("Enter a positive integer (negative to stop): ");
            input = scanner.nextInt();
            if (input >= 0) {
                sum += input;
            }
        } while (input >= 0);
        System.out.println("Sum of entered positive numbers: " + sum);
        scanner.close();
    }
}
```

### Output:

```
bu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03\" ; if ($?) { java
umbers.java } ; if ($?) { java SumPositiveNumbers }
Enter a positive integer (negative to stop): 20
Enter a positive integer (negative to stop): 1
Enter a positive integer (negative to stop): 3
Enter a positive integer (negative to stop): 8
Enter a positive integer (negative to stop): 6
Enter a positive integer (negative to stop): 5
Enter a positive integer (negative to stop): 10
Enter a positive integer (negative to stop): -1
Sum of entered positive numbers: 53
PS C:\Users\mrabu\Desktop\6th Semester\SCD Lab\Lab Tasks\Lab03> █
```

**END!**