Week 1

Objective: To understand the basic concepts of Object Oriented Programming System and to get familiar with object and class.

Assignments:

1. Write a Java program to print your name.

```
package Week1;

public class PrintName {

	public static void main(String args[]){

	System.out.println("UEMK");

	}

}
```

Output: UEMK

2. Write a Java program to add two numbers.

```
package Week1;

public class Sum {

	public static void main(String args[]){

		int a=10;
		int b=20;
		int res=a+b;
		System.out.println("Sum is = "+res);

	}

}
```

Output: 30

3. Write a Java program to change temperature from Celsius to Fahrenheit.

```
package Week1;

public class Celsius_to_Fahrenheit {

	public static void main(String args[]){

		float temperature=(float) 37.7;


	    System.out.println("Temperature in Fahrenheit = " + temperature);

	    temperature = temperature * 9/5 + 32;

	    System.out.println("Temperature in Celsius = " + temperature);
	}
}
```

```
Temperature in Fahrenheit = 37.7
Temperature in Celsius = 99.86
```

4. Write a Java program to change temperature from Fahrenheit to Celsius.

```
package Week1;

public class Fahrenheit_to_Celsius {

	public static void main(String args[]){

		float temperature=100;


	    System.out.println("Temperature in Fahrenheit = " + temperature);

	    temperature = ((temperature - 32)*5)/9;

	    System.out.println("Temperature in Celsius = " + temperature);
	}
}
```

```
Output:
Temperature in Fahrenheit = 100.0
Temperature in Celsius = 37.77778
```

5. Write a Java program to find area and perimeter of a rectangle.

```
package Week1;

public class Celsius_to_Fahrenheit {

                public static void main(String[] args) {

                    float length=10, width=10, area, perimeter;


                    perimeter = 2 * (length + width);

                    area = length * width;

                    System.out.println("Perimeter of rectangle is " + perimeter + " units.");
                    System.out.println("Area of rectangle is " + area + " sq. units.");
                }
            }
```

Output:
Perimeter of rectangle is 40.0 units.
Area of rectangle is 100.0 sq. units.

6. Write a Java program to find area and perimeter of a circle.

```
package Week1;

public class Area_Circle {

        public static void main(String args[]){

                double radius=7.5;

                double perimeter = 2 * Math.PI * radius;
            double area = Math.PI * radius * radius;

             System.out.println("Perimeter is = " + perimeter);
             System.out.println("Area is = " + area);
   }

        }
```

Perimeter is = 47.12388980384689
Area is = 176.71458676442586

7. Write a Java Program to display whether a number is odd or even.

```
package Week1;
```

```
import java.util.Scanner;

public class Odd_Even {

	public static void main(String args[]){

		 Scanner reader = new Scanner(System.in);
		System.out.print("Enter a number: ");
		int num = reader.nextInt();
		if(num % 2 == 0)
		   System.out.println(num + " is even");
		else
		   System.out.println(num + " is odd");

	}

}
```

Output:
Enter a number: 10
10 is even

8. Write a Java Program to check if a number is Positive or Negative.

```
package Week1;
import java.util.Scanner;
public class Pos_Neg {

	public static void main(String args[]){

		 Scanner reader = new Scanner(System.in);
		System.out.print("Enter a number: ");
		int num = reader.nextInt();
		if(num < 0)
		   System.out.println(num + " is a negetive no.");
		else
		   System.out.println(num + " is positive no.");
		  }
}
```

Output:
Enter a number: -999
-999 is a negetive no.

9. Write a Java program to find maximum of three numbers.

```
package Week1;
```

```
import java.util.Scanner;

public class Third_Max {

	public static void main(String args[]){

		int a=50;
		int b=30;
		int c=10;

		if(a<b & a<c)
		{
			System.out.println("A is the third max");
		}
		else if(b<a & b<c)
		{
			System.out.println("B is the third max");
		}
		else
		{
			System.out.println("C is the third max");
		}

	}

}
```

Output: C is the third max

10. Write a Java program to swap two numbers.

```
package Week1;

import java.util.Scanner;

public class Swap {

	public static void main(String args[]){

		int a=50;
		int b=30;
		int temp=a;
		a=b;
		b=temp;
		System.out.println("A is "+a+"  B is "+b);
```

```
        }

}
```
Output: A is 30 B is 50

11. Write a Java program to convert miles to kilometers.

```
package Week1;

import java.util.Scanner;

public class Mile_to_Kilo {

        public static void main(String args[]){

                double miles;

            Scanner in = new Scanner(System.in);

            System.out.println("Please enter miles:");
            miles = in.nextDouble();

            double kilometers = miles * 1.6;

            System.out.println(kilometers + " Kilometers");


        }

}
```
Output: Please enter miles:
10
16.0 Kilometers

12. Write a Java program to check whether a year is leap year or not.

```
package Week1;

import java.util.Scanner;

public class LeapYear {

        public static void main(String args[]){

              int year = 1900;
            boolean leap = false;
```

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

      }

}
```
Output: 1900 is not a leap year.

13. Write a Java program for following grading system.

Note: Percentage>=90% : Grade A Percentage>=80% : Grade B Percentage>=70% : Grade C Percentage>=60% : Grade D Percentage>=40% : Grade E Percentage<40% : Grade F

```
package Week1;

import java.util.Scanner;

public class Grade {

      public static void main(String args[]){

            float  avg;
         Scanner scanner = new Scanner(System.in);
         System.out.print("Enter the %: ");
         avg=scanner.nextFloat();
         System.out.print("The student Grade is: ");
         if(avg>=90)
         {
            System.out.print("A");
```

```
        }
        else if(avg>=80 && avg<90)
        {
          System.out.print("B");
        }
        else if(avg>=60 && avg<80)
        {
           System.out.print("C");
        }
        else if(avg>=40 && avg<60)
        {
           System.out.print("D");
        }
        else
        {
          System.out.print("E");
        }
    }

}
```

Output: Enter the %: 90
The student Grade is: A

14. Write a Java program to check whether a number is divisible by 5 or not.

```
package Week1;

import java.util.Scanner;

public class Mod_Five {

    public static void main(String args[]){

        int avg;
        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter the no.: ");
        avg=scanner.nextInt();

        if(avg%5==0)
        {
          System.out.print("No. is divisible by 5 ");
        }
        else
        {
          System.out.print("No. is not divisible by 5 ");
        }
```

```
        }

}
```
Enter the no.: 25
No. is divisible by 5