Write a Java Program

1. Print Hello World

```
class HelloWorld {
  public static void main(String[] args) {
    System.out.println("Hello World");
  }
}
```

```
D:\Java>javac HelloWorld.java

D:\Java>java HelloWorld
Hello World

D:\Java>
```

2. Add two numbers/binary numbers/characters

```
class Add {

  public static void main(String[] args) {
    int a = 1, b = 2, c; //sum of two numbers
    c = a + b;
    System.out.println("sum is :" + c);

    char x = 'A', y = 'B', z = 'C';
    System.out.println("sum is :" + 'x' + 'y' + 'z');

    long p = 11100;
    long q = 10101;
    System.out.println("sum is :" + p + q);
  }
}
```

```
D:\Java>javac Add.java

D:\Java>java Add
sum is :3
sum is :xyz
sum is :1110010101
```

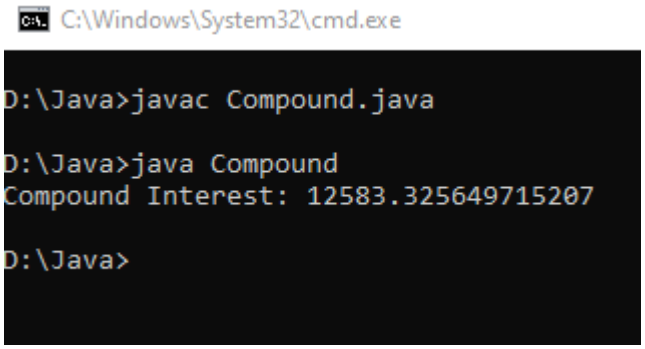
3. Calculate compound interest

```
public class Compound {

  public static void main(String[] args) {
    double principal = 8564;
    double rate = 8; // 8% Per Year
    double term = 5; // 5 Year

    double compoundInterest = principal;
```

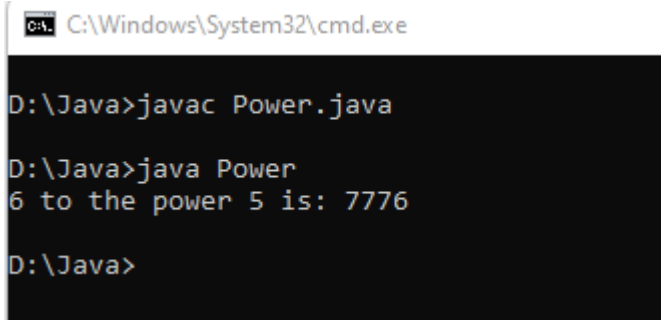
```
    for (int i = 1; i <= term; i++) {
      compoundInterest = compoundInterest * (1 + (rate /
100));
    }
    System.out.println("Compound Interest: " +
compoundInterest);
  }
}
```



4. Calculate power of a number

```
public class Power {

  public static void main(String[] args) {
    int number = 6;
    int exponent = 5;
    int result = 1;
    for (int i = 0; i < exponent; i++) {
      result = result * number;
    }
    System.out.println(number + " to the power " + exponent +
" is: " + result);
  }
}
```



5. Swap two numbers

```
class Swap {

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

```
    int a = 2, b = 3, t;
    System.out.println("Before Swap:" + a + +b);
    t = a;
    a = b;
    b = t;
    System.out.println("After Swap:" + a + +b);
  }
}
```

```
D:\Java>javac Swap.java

D:\Java>java Swap
Before Swap:23
After Swap:32
```

6. Calculate area of rectangle

```
class RectangleArea {

  public static void main(String[] args) {
    int x = Integer.parseInt(args[0]);
    int y = Integer.parseInt(args[1]);
    System.out.println("Area of rectangle:" + (x * y));
  }
}
```

```
D:\Java>javac RectangleArea.java

D:\Java>java RectangleArea 8 5
Area of rectangle:40
```

7. Calculate area and circumference of circle using multiple classes

```
class Area {

  double r = 1;
  double pi = 3.14f;
  double area = pi * r * r;
}

class Circ {

  double r = 8;
  double pi = 3.14f;
  double circ = 2 * pi * r;
}

public class CircleArea {
```

```
  public static void main(String[] args) {
    Area calc = new Area();
    Circ calc1 = new Circ();
    System.out.println(calc.area);
    System.out.println(calc1.circ);
  }
}
```

```
D:\Java>javac CircleArea.java

D:\Java>java CircleArea
3.140000104904175
50.2400016784668
```

8. Java program to find ASCII value of a character

```
class ASCII {

  public static void main(String[] args) {

    char a = 'a';

    int a1 = a;

    System.out.println(a1);
  }
}
```

```
D:\Java>javac ASCII.java

D:\Java>java ASCII
97
```

9. Print default values of primitive data type variables

```
class Default {

  static byte a;

  static short b;
  static int c;
  static long d;
  static float e;
  static double f;

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

```
    System.out.println("a=" + a);
    System.out.println("b=" + b);
    System.out.println("c=" + c);
    System.out.println("d=" + d);
    System.out.println("e=" + e);
    System.out.println("f=" + f);
  }
}
```

```
D:\Java>javac Default.java

D:\Java>java Default
a=0
b=0
c=0
d=0
e=0.0
f=0.0

D:\Java>
```

10.Swap two variables without using the third variable

```
class SwapVar {

  public static void main(String[] args) {
    int a = 6;
    int b = 8;

    System.out.println("Before Swap: a= " + a + " b= " + b);
    a = a + b;
    b = a - b;
    a = a - b;
    System.out.println("After Swap: a= " + a + " b= " + b);
  }
}
```

```
D:\Java>javac SwapVar.java

D:\Java>java SwapVar
Before Swap: a= 6 b= 8
After Swap: a= 8 b= 6
```

11.Print Fibonacci series till n

```
class Fibonacci {

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

```
        int n1 = 0, n2 = 1, n3, i;
        System.out.print(n1 + " " + n2); //printing 0 and 1

        int n = Integer.parseInt(args[0]);

        for (i = 2; i < n; ++i) {
          //loop starts from 2 because 0 and 1 are already printed
          n3 = n1 + n2;
          System.out.print(" " + n3);
          n1 = n2;
          n2 = n3;
        }
      }
    }
```