

Assignment (22 November, 2025)

Class 1 : Factorial Util, Java.

```
package Factorian;
```

```
public class FactorialUtil {
```

```
    public static int factorial (int n) {
```

```
        int fact = 1;
```

```
        for (int i = 2; i ≤ n; i++) {
```

```
            fact = fact * i;
```

```
        }  
        return fact;
```

```
    }  
    public static boolean isFactorian (int number)
```

```
    {  
        int original = number;
```

```
        int sum = 0;
```

```
        while (number > 0) {
```

```
            int digit = number % 10;
```

```
            sum += factorial (digit);
```

```
            number /= 10;
```

```
        }
```

```
        return sum == original;
```

```
    }  
}
```

Class 2: Factorian Main, Java:

```
package FactorianMain;

public class
import java.util. Scanner;

public class FactorianMain {
    public static void main (String[] args) {
        Scanner scanner = new Scanner (System.in);
        System.out.print ("Enter the lower bound of the range:");
        int lower = scanner.nextInt();
        System.out.print ("Enter the upper bound of the range:");
        int upper = scanner.nextInt();
        System.out.println ("Factorian numbers in the range:");
        boolean found = false;
        for (int i = lower; i <= upper; i++) {
            if (FactorianUtil.isFactorian (i)) {
                System.out.println (i);
                found = true;
            }
        }
        if (!found) {
            System.out.println ("No factorian number found in the range.");
        }
        scanner.close();
    }
}
```