

Assignment (22 November, 2025)

Class 1 : FactorianUtil.java

```
package Factorian;
```

```
public class FactorianUtil {
```

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

```
        int fact = 1;
```

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

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

```
        return fact;
```

```
    public static boolean infactorian (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: FactorianMain.java

```
package FactorianMain;
public class FactorianMain {
    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 ();
        }
    }
}
```