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CSE-B 19 S2

TUTORIAL-3

1.

```java
import java.util.Scanner;
public class factorial{
    Run main | Debug main
    public static void main(String[] args){
        Scanner s= new Scanner(System.in);
        System.out.print("enter the number : ");
        int i=1,n,fact=1;
        n=s.nextInt();
        while(i<=n){
            fact*=i;
            i++;
        }
        System.out.println("The factorial of " +n +" is " + fact);
    }
}
```

OUTPUT:

```
enter the number : 5
the factorial of the number is 120
```

2.

```java
import java.util.Scanner;
public class FibonacciSeries{
    Run main | Debug main
    public static void main(String[] args){
        Scanner s= new Scanner(System.in);
        int i,n,first=0,second=1,next;
        System.out.print("enter the number : ");
        n=s.nextInt();
        System.out.println("The fibonacci series upto limit " +n +" is ");
        System.out.print(first+", "+second);
        for(i=0;i<n;i++){
            next =first +second;
            System.out.print(", "+next);
            first= s
            second= next;
        }
    }
}
```

int next

OUTPUT:

```
enter the number : 10
The fibonacci series upto limit 10 is
0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89
```

3.

```java
import java.util.Scanner;
public class ReverseOfNumber{
    Run main | Debug main
    public static void main(String[] args){
        Scanner s= new Scanner(System.in);
        int i,a,n,rev=0,l;
        System.out.print("enter the number : ");
        n=a=s.nextInt();
        for(;a>0;a/=10){
            l=a %10;
            rev=rev*10+l;
        }
        System.out.println("The reverse of the number " +n +" is "+rev);
    }
}
```

OUTPUT:

```
c:\Users\Admin\Desktop\java\code>cd "c:\Users\
enter the number : 12345
The reverse of the number 12345 is 54321
```

4.

```java
import java.util.Scanner;
public class LeapYear{
    Run main | Debug main
    public static void main(String[] args){
        Scanner s= new Scanner(System.in);
        System.out.print("\nenter a year(YYYY) : ");
        int n=s.nextInt();
        System.out.print("The year " +n +" is ");
        if(((n%4==0)&&(n%100!=0))||(n%400==0)){
            System.out.print("a Leap year\n");
        }
        else{
            System.out.print(" not a Leap year\n");
        }
    }
}
```

OUTPUT:

```
enter a year(YYYY) : 2000
The year 2000 is a Leap year

c:\Users\Admin\Desktop\java\code>cd "c:

enter a year(YYYY) : 2003
The year 2003 is  not a Leap year
```

5.

```java
public class PrimeNumber1To100{
    Run main | Debug main
    public static void main(String[] args){
        int i,n;
        System.out.println("\nThe prime numbers B/W 1 to 100 are :");
        for(n=2;n<=100;n++){
            boolean isPrime=true;
            for(i=2;i<=n/2;i++){
                if (n % i == 0){
                    isPrime=false;
                    break;
                }
            }
            if(isPrime){
                System.out.print(n+" ");
            }
        }
    }
}
```

OUTPUT:

```
The prime numbers B/W 1 to 100 are :
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97
```