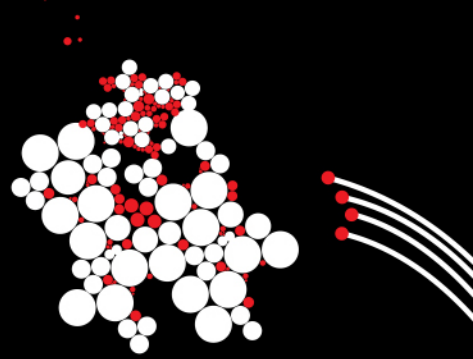
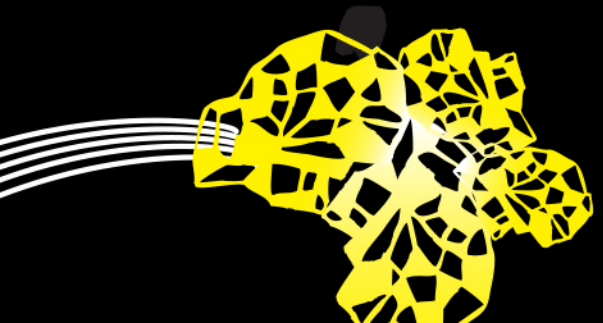
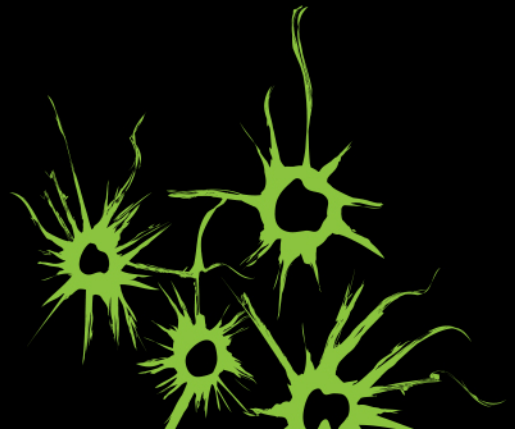
UNIVERSITY OF TWENTE.



PROGRAMMING: METHOD AND SCOPING

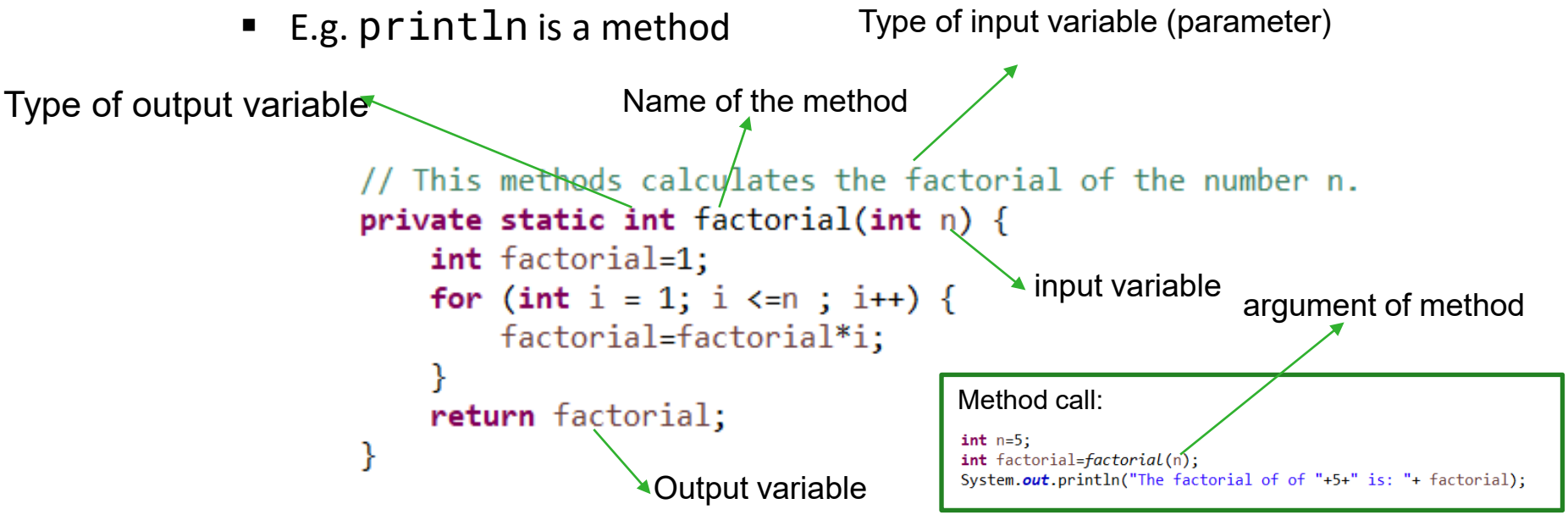
FAIZAN AHMED





METHOD

- A **method** is a sequence of instructions with a name.
  - E.g. `println` is a method



METHOD

```java
// This method calculates and print the factorial
private static void printFactorial(int n) {
    int factorial=1;
    for (int i = 1; i <=n ; i++) {
        factorial=factorial*i;
    }
    System.out.println("The factorial of of "+n+" is: "+ factorial);
}
```

```java
int n=5;
printFactorial(n);
```

RECURSION

- Dividing a problem to smaller problem of same type.
  - A tool used to simplify design and implementation of algorithm.

```
// This methods calculates the factorial of the number n.
private static int rescursiveFactorial(int n) {
    if(n==1) {
        return 1;
    }
    return n*rescursiveFactorial(n-1);
}
```