Chapter 7 Methods in Java by Munawar

Sometimes our program arrows in size and we want to separate the logic of main method to other methods.

For instance if we are calculating average of a number pair 5 times, we can use methods to avoid repeating the logic.

DRY = don't repeat yourself

Syntax of a method

A method is a function written inside a class since java is an object oriented language, we need to write the method inside some class.

Datatype name () {

// method body

}

Following method returns sum of two numbers

Int sum (Int a, Int b)

{

Int c= a + b;

Return c;

}

Example

Java method

```
static  int logic(int x,int y){
    int z;
    if(x>y){
        z=x+y;
    }
    else {
```

```
        z=(x+y)*5;
    }
    return z;
}
```

Calling java class

```
// after using java method
int sum=logic(20,3);
System.out.println(sum);
```

Calling a method

A method can be called by creating an object of the class in which the method exists followed by the method call.

Calc obj=new calc();

Obj.sum(a,b);

The value from the method call (a and b) are copied to the and b of the function sum. Thus even if we modify the values a and b inside the method the value in the main method will not change.

Source Code

```
  import java.util.Scanner;
public class Main {
    static  int logic(int x,int y){
        int z;
        if(x>y){
            z=x+y;
        }
        else {
            z=(x+y)*5;
        }
        return z;
    }

    // create another method
    int newlogic(int x,int y){
        int z;
        if(x>y){
            z=x+y;
        }
        else {
```

```java
        z=(x+y)*5;
    }
    return z;
}
public static void main(String[] args) {
// Java methods
// before used java method
    int a=5;
    int b=3;
    int c;
    if(a>b){
        c=a+b;
    }
    else{
        c=(a+b)*5;
    }

    int a1=50;
    int b2=30;
    int c1;
    if(a1>b2){
        c1=a1+b2;
    }
    else{
        c1=(a1+b2)*5;
    }
    System.out.println(c);
    System.out.println(c1);

    // after using java method
    int sum=logic(20,3);
    System.out.println(sum);

    // object creation
    Main obj=new Main();
    int o=obj.newlogic(44,3);
    System.out.println(o);
    }

}
```

Thank You