Prameterization --> fetching of data into your scipt

Apache POI API --> third party

@dataProvide annotation

Arrays

Arrays are used to store the group of elements and the elements are homogeneous and fixed number.

example int [] a ={10,20,30,40};

double [] d={10.2,20.2,30.};

Arrays are index based,index starts from zero.

There are two ways to declare the array

1. int[] a; array declaration

a = new int[4]; // instantiation, object creation

a[0]=10;

a[1]=20;

a[2]=30;

a[3]=40;//initialisation

int[]a=new int[5]

2. int [] a={10,20,30,40}; //declaration and object creation and initialisation

example 1

```
package com.array;

public class Array2 {

	public static void main(String[] args) {

		int [] a= {10,20,30,40,50};

		System.out.println(a.length);
		//length variable is used to get the size of array

		//	there are three approch to print array element

		//1 st way
		System.out.println(a[0]);
		System.out.println(a[1]);
		System.out.println(a[2]);
		System.out.println(a[3]);
		System.out.println(a[4]);

		//2nd way by using for loop

		for(int i=0; i<=a.length-1;i++) {

		System.out.println(a[i]);
		}

		//3rd way by using for each loop
```

```
		for(int aa:a) {

		System.out.println(aa);
		}

	}

}
```

ex-2

once we create the array, the array is is created with default value

```
package com.array;

public class Array3 {
	//Array is created with default value
	public static void main(String[] args) {

		int [] a = new int[5];//0,0,0,0,0
		a[0]=1;
		a[1]=2;

		for(int aa:a) {

			System.out.println(aa);
		}
	}
```

```
}
```

observations

1. if we are not giving size of the array we will get error.

```
public class A {

	public static void main(String[] args) {

		int[]a=new int [];

		//Variable must provide either dimension expressions or an array initializer

	}

}
```

2. if we give the size is negative we will get run time exception called java.lang.NegativeArraySizeException:

```
public class A {

	public static void main(String[] args) {

		int[]a=new int [-10];

	}

}
```

3.The Array object is created internally.

4.There is no limit to create the number of Array object, depends on memory supported by system.

```
 public class A {

        public static void main(String[] args) {

                int[]a=new int [10000000000];

    //  The literal 10000000000 of type int is out of range
}}
```

5.it is possible to take return type is array and argument is array.

```
package com.array;

public class Array4 {

        //array does not support any predefine method
        //performance is good but operation wise it is not good
        //return type is array and argument is array.



        int [] m1() {
                System.out.println("m1 method");
```

```
		int[]a= {10,20,30,40,50};
		return a;
	}

	void m2(double[]d) {

		System.out.println("m2 method");
		for(double dd:d) {

			System.out.println(dd);
		}


	}

	public static void main(String[] args) {

		Array4 a =new Array4();
		int[] aa=a.m1();

		for(int aaa:aa) {
		System.out.println(aaa);

		}

		double []d = {11.1,12.2,13.3,14.4,15.5};

		a.m2(d);

	}
}
```

```
package com.array;

public class Array5 {


	int [] m1() {

		System.out.println("m1 method");
		int [] a = {10,20,30};
		return a;

	}

	void m2(double [] d ) {

		System.out.println("m2 method");
		for(double dd:d) {

			System.out.println(dd);

		}

	}

	public static void main(String[] args) {
		Array5 a = new Array5();
		int [] x=a.m1();

		for(int xy:x) {
```

```
                System.out.println(xy);


        }

        double [] d= {1,2,3,4,5};

        a.m2(d);

    }

}
```

6.MultiDimensional array

```
package com.array;

public class Array6 {

    //multidimensional array
    public static void main(String[] args) {

        int[][]a= {{10,20,30},{40,50,60}};
        //  0  1  2
        //0 10,20,30
        //1 40,50,60
```

```
            //[1]=check row
            //[2]= check cloumn
        System.out.println(a[1][2]);//   row *coloumn 60
        System.out.println(a[0][2]);//30
        System.out.println(a[1][1]);//50
    }


}
```