ARRAYS KLASSI METHODLARI

FOREACH

```
public class Test {
  public static void main(String[] args) {
        int nums[] = { 2, 4, 6 };
        for (int i = 0; i < aNums.length; i++) {
            String strToPrint = “nums[" + i + "]=" +   nums[i];
        }
        // FOREACH
    for (int num : aNums) {
            String strToPrint = num;
        }
    }
}
```

Класс **java.util.Arrays** klassi massivlar bilan ishlashga mo’ljallangan bo’lib uning quyidagi asosiy methodlari mavjud:

toString() − massivning barcha elementlarini bitta satr ko’rinishda olish uchun mo’ljallangan

deepToString() − ko’p o’lchovli massivning barcha elementlarini bitta satr ko’rinishda olish uchun mo’ljallangan

sort() — massiv elementlarini saralash olish uchun mo’ljallangan

copyOf() − massivdan nusxa olish uchun mo’ljallangan

copyOfRange() − massivning qismidan nusxa olish uchun mo’ljallangan

System.arraycopy() - massivdan nusxa olish uchun mo’ljallangan

fill() − massivni berilgan qiymat bilan to’ldiradi.

equals() − massivlarni (aynan) tenglikka tekshiradi.

deepEquals() − ko’p o’lchovli massivlarni (aynan) tenglikka tekshiradi.

toString()

```
public static void main(String[] args) {
    String[] daysOfWeek = {"Monday", "Tuesday", "Wednesday",
            "Thursday", "Friday", "Saturday", "Sunday"};
    int[] arr1={5,8,0,-1,1, 2, 3};
    System.out.print("daysOfWeek => ");
    System.out.println(Arrays.toString(daysOfWeek));
    System.out.print("arr1       => ");
    System.out.println(Arrays.toString(arr1));
}
```

```
daysOfWeek => [Monday, Tuesday, Wednesday, Thursday, Friday,
Saturday, Sunday]
arr1       => [5, 8, 0, -1, 1, 2, 3]
```

deepToString()

```
public static void main(String[] args) {
    String[][] monthOfSeasons = {
            {"March", "April", "May"},
            {"June", "July", "August"},
            {"September", "October", "November"},
            {"December", "January", "February"}
    };
    System.out.print("monthOfSeasons => ");
    System.out.println(Arrays.deepToString(monthOfSeasons));
}
```

```
monthOfSeasons => [[March, April, May], [June, July, August],
                   [September, October, November], [December,
January, February]]
```

sort()

```
public static void main(String[] args) {
    String[] daysOfWeek = {"Monday", "Tuesday", "Wednesday",
        "Thursday", "Friday", "Saturday", "Sunday"};
System.out.print(Arrays.toString(daysOfWeek));
System.out.println("   => original array");
Arrays.sort(daysOfWeek, Collections.reverseOrder());
System.out.print(Arrays.toString(daysOfWeek));
System.out.println("   => reverseOrder sorted array");
}
```

```
[Monday, Tuesday, Wednesday, Thursday, Friday, Saturday,
Sunday]   => original array
[Wednesday, Tuesday, Thursday, Sunday, Saturday, Monday,
Friday]   => reverseOrder sorted array
```

copyOf()

```
public static void main(String[] args) {
    String[] daysOfWeek = {"Monday", "Tuesday", "Wednesday",
            "Thursday", "Friday", "Saturday", "Sunday"};

    String[] weekDays=Arrays.copyOf(daysOfWeek,5);
    System.out.print("daysOfWeek => ");
    System.out.println(Arrays.toString(daysOfWeek));
    System.out.print("weekDays   => ");
    System.out.println(Arrays.toString(weekDays));
}
```

```
daysOfWeek => [Monday, Tuesday, Wednesday, Thursday, Friday,
Saturday, Sunday]
weekDays     => [Monday, Tuesday, Wednesday, Thursday,
Friday]
```

copyOfRange()

```
public static void main(String[] args) {
    String[] daysOfWeek = {"Monday", "Tuesday", "Wednesday","Thursday",
"Friday", "Saturday", "Sunday"};
String[] weekEnds= Arrays.copyOfRange(daysOfWeek,5,daysOfWeek.length);

    System.out.print("daysOfWeek => ");
    System.out.println(Arrays.toString(daysOfWeek));
    System.out.print("weekEnds   => ");
    System.out.println(Arrays.toString(weekEnds));
}

daysOfWeek => [Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday]
weekEnds   => [Saturday, Sunday]
```


Class System-method arraycopy()

```
public static void main(String[] args) {
    String[] daysOfWeek = {"Monday", "Tuesday", "Wednesday",
            "Thursday", "Friday", "Saturday", "Sunday"};

    String[] weekEnds=new String[2];
    System.arraycopy(daysOfWeek,5,weekEnds,0,weekEnds.length);

    System.out.print("daysOfWeek => ");
    System.out.println(Arrays.toString(daysOfWeek));
    System.out.print("weekEnds   => ");
    System.out.println(Arrays.toString(weekEnds));
}

daysOfWeek => [Monday, Tuesday, Wednesday, Thursday, Friday, Saturday,
Sunday]
weekEnds   => [Saturday, Sunday]
```


PERSONAL DEVELOPMENT PROCESS
stay weird, stay different

fill()

```
public static void main(String[] args) {
    boolean[] bool = new boolean[5];
    int[] arr1 = new int[5];

    Arrays.fill(bool, true);
    Arrays.fill(arr1,1,4,3);
    System.out.print("bool => ");
    System.out.println(Arrays.toString(bool));
    System.out.print("arr1 => ");
    System.out.println(Arrays.toString(arr1));
}

bool => [true, true, true, true, true]
arr1 => [0, 3, 3, 3, 0]
```

equals()

```
public static void main(String[] args) {
    int[] arr1={5,8,0,-1,1, 2, 3};
    int[] arr2={5,8,0,-1,1, 2, 3};
    int[] arr3={5,8,0,-1,1, 2};
    int[] arr4={6,7,10,11,1, 5, 2};
    System.out.print("arr1.equals(arr2) => ");
    System.out.println(Arrays.equals(arr1,arr2));
    System.out.print("arr1.equals(arr3) => ");
    System.out.println(Arrays.equals(arr1,arr3));
    System.out.print("arr1.equals(arr4) => ");
    System.out.println(Arrays.equals(arr1,arr4));
}
```

```
arr1.equals(arr2) => true
arr1.equals(arr3) => false
arr1.equals(arr4) => false
```

deepEquals()

```
public static void main(String[] args) {
    int[][] arr1={{1,2,3},{4,5,6},{7,8,9}};
    int[][] arr2={{1,2,3},{4,5,6},{7,8,9}};
    int[][] arr3={{7,8,9},{1,2,3},{4,5,6}};

    System.out.print("arr1.deepEquals(arr2) => ");
    System.out.println(Arrays.deepEquals(arr1,arr2));
    System.out.print("arr1.deepEquals(arr3) => ");
    System.out.println(Arrays.deepEquals(arr1,arr3));
}

arr1.deepEquals(arr2) => true
arr1.deepEquals(arr3) => false
```

Java Arrays - Tasks

1. Massiv ichida berilgan son bor yo’qligini aniqlaydigan dastur tuzing.
2. Berilgan massivda nechta juft son borligini aniqlaydigan dastur tuzing.
3. Berilgan massivdagi 3 ga bo’linadigan lekin 7 bo’linmaydigan nechta son borligini aniqlaydigan dastur tuzing.
4. Berilgan masiv elementlarining yig’indisi va ko’paytmasini topadigan dastur tuzing.