

Get a random array of integer numbers

```
public class Week5Question1ClientAndClass {  
  
    public static void main(String[] args) {  
  
        int amount = 0;  
        int randomNum = 0;  
        int smallNum = 0;  
        float avgNum = 0;  
  
        Scanner keyboard = new Scanner(System.in);  
        Random generator = new Random();  
  
        System.out.println("How many numbers do you want to store: ");  
        amount = keyboard.nextInt();  
  
        int[] userNumbers = new int[amount];  
  
        for(int i = 0; i < amount; i++) {  
            randomNum = 1 + generator.nextInt((999 - 1) + 1); //rand.nextInt((max - min) + 1) + min  
            userNumbers[i] = randomNum;  
        }  
    }  
}
```

Client program-

Get array of random integer numbers + Determine smallest number

Client program (main)-

```
public class Week5Question1ClientAndClass {  
  
    public static void main(String[] args) {  
  
        int amount = 0;  
        int randomNum = 0;  
        int smallNum = 0;  
        float avgNum = 0;  
  
        Scanner keyboard = new Scanner(System.in);  
        Random generator = new Random();  
  
        System.out.println("How many numbers do you want to store: ");  
        amount = keyboard.nextInt();  
  
        int[] userNumbers = new int[amount];  
  
        for(int i = 0; i < amount; i++) {  
  
            randomNum = 1 + generator.nextInt((999 - 1) + 1); //rand.nextInt((max - min) + 1) + min  
            userNumbers[i] = randomNum;  
        }  
  
        smallNum = CalcSmallNum(userNumbers);  
    }  
}
```

Client program (method)-

```
public static Integer CalcSmallNum(int[] userNumbers) {  
  
    int currentSmallestNum = 0;  
  
    currentSmallestNum = userNumbers[0];  
  
    for (int i = 0; i < userNumbers.length; i++) {  
  
        int num = userNumbers[i];  
  
        if (num < currentSmallestNum) {  
            currentSmallestNum = num;  
        }  
    }  
  
    return currentSmallestNum;  
}
```

Get array of random integer numbers + Determine largest number

Client program (main)-

```
16
17 public static void main(String[] args) {
18
19     int amount = 0;
20     int randomNum = 0;
21     int largeNum = 0;
22     float avgNum = 0;
23
24     Scanner keyboard = new Scanner(System.in);
25     Random generator = new Random();
26
27     System.out.println("How many numbers do you want to store: ");
28     amount = keyboard.nextInt();
29
30     int[] userNumbers = new int[amount];
31
32     for(int i = 0; i < amount; i++) {
33
34         randomNum = 1 + generator.nextInt((999 - 1) + 1); //rand.nextInt((max - min) + 1) + min
35         userNumbers[i] = randomNum;
36     }
37
38
39     largeNum = CalcLargeNum(userNumbers);
40
41 }
42
```

Client program (method)-

```
44 public static Integer CalcLargeNum(int[] userNumbers) {
45
46     int currentlargeNum = 0;
47
48     currentlargeNum = userNumbers[0];
49
50     for (int i = 0; i < userNumbers.length; i++) {
51
52         int num = userNumbers[i];
53
54         if (num > currentlargeNum) {
55             currentlargeNum = num;
56         }
57     }
58
59     return currentlargeNum;
60 }
```

Get array of random integer numbers + Determine average number

Client program (method)-

```
public static float CalcAvgNum(int[] userNumbers) {  
  
    float avgNumber = 0;  
    int sumOfNum = 0;  
    int num = 0;  
    int currentNum = 0;  
  
    for(int i = 0; i < userNumbers.length; i++) {  
        currentNum = userNumbers[i];  
  
        sumOfNum += currentNum;  
    }  
  
    num = userNumbers.length; //Num of numbers  
  
    avgNumber = (float) sumOfNum/num;  
  
    return avgNumber;  
}
```

Get array of random integer numbers + Display numbers in one line with spaces in between

```
93 public static void DspUserNumbers(int[] userNumbers) {  
94  
95     int num = 0;  
96  
97     for(int i = 0; i < userNumbers.length; i++) {  
98         num = userNumbers[i];  
99  
100         System.out.printf("%d ", num); //Note: WHY did I didn't I do System.out.printf("%d", num)? Cos the space allows seperation  
101     }  
102  
103 }  
104
```

Client program (method)-