

Java Work - ZSGS/src/Arrays\_DAY8/first.java - Eclipse IDE

```
1 package Arrays_DAY8;
2
3 import java.util.Scanner;
4
5 //1. Create a program that rotates the elements
6 of an array to the right by a specified number
7 of positions. Get the array and the rotation
8 count from the user*/
9 public class first {
10
11     public static void main(String[] args) {
12         Scanner obj = new Scanner(System.in);
13         System.out.print("Enter No of Elements : ");
14         int n=obj.nextInt();
15         System.out.print("Enter No of Rotate : ");
16         int rotate = obj.nextInt();
17         System.out.println("Enter Elements : ");
18         int arr[] = new int[n];
19         for(int i=0;i<n;i++)
20             arr[i] = obj.nextInt();
21
22         int temp[] = new int[rotate];
23         for(int i=0;i<rotate;i++) {
24             temp[i] = arr[i];
25         }
26         for(int i=rotate;i<n;i++) {
27             arr[i-rotate] = arr[i];
28         }
29         int j=0;
30         for(int i=n-rotate;i<n;i++) {
31             arr[i] = temp[j++];
32         }
33         for(int i=0;i<n;i++) {
34             System.out.print(arr[i] + " ");
35         }
36     }
37 }
```

Console

```
terminated> first (6) [Java Application] C:\Program Files\Java\jdk-22\bin\javaw.exe (Jul 27, 2024, 11:19 PM)
Enter No of Elements : 7
Enter No of Rotate : 5
Enter Elements :
1 2 3 4 5 6 7
6 7 1 2 3 4 5
```

Java Work - ZSGS/src/Arrays\_DAY8/second.java - Eclipse IDE

```
1 package Arrays_DAY8;
2
3 import java.util.Scanner;
4
5 //2. Write a program to find transpose of a matrix
6 public class second {
7
8     public static void main(String[] args) {
9         System.out.print("Enter No of Elements : ");
10        Scanner obj = new Scanner(System.in);
11        int n = obj.nextInt();
12        int arr[][] = new int[n][n];
13        System.out.println("Enter Elements : ");
14        for(int i=0;i<n;i++) {
15            for(int j=0;j<n;j++) {
16                arr[i][j] = obj.nextInt();
17            }
18        }
19        for(int i=0;i<n;i++) {
20            for(int j=i;j<n;j++) {
21                int temp = arr[i][j];
22                arr[i][j] = arr[j][i];
23                arr[j][i] = temp;
24            }
25        }
26        for(int i=0;i<n;i++) {
27            for(int j=0;j<n;j++) {
28                System.out.print(arr[i][j] + " ");
29            }
30            System.out.println();
31        }
32    }
33 }
34
35 }
36 }
```

Console

```
terminated> second (7) [Java Application] C:\Program Files\Java\jdk-22\bin\javaw.exe (Jul 27, 2024, 11:21 PM)
Enter No of Elements : 5
Enter Elements :
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
21 22 23 24 25
1 6 11 16 21
2 7 12 17 22
3 8 13 18 23
4 9 14 19 24
5 10 15 20 25
```

Java Work - ZSGS/src/Arrays\_DAY8/third.java - Eclipse IDE

```
1 package Arrays_DAY8;
2
3 import java.util.Scanner;
4
5 /*3. Write a program to generate the matrix with
6 integers in spiral order. Get size N from the user
7 and generate an NxN spiral matrix.*/
8 public class third {
9
10     public static void main(String[] args) {
11         System.out.print("Enter No of Rows : ");
12         Scanner obj = new Scanner(System.in);
13         int n = obj.nextInt();
14         int arr[][] = new int[n][n];
15         int val=1;
16         int i=0;
17         int j=0;
18         int c=1;
19         while(val<n*n) {
20             while(i<n-c)
21                 arr[i][j++] = val++;
22             while(i<n-c)
23                 arr[i++][j] = val++;
24             c++;
25             while(j>=c-1)
26                 arr[i][j--] = val++;
27             while(i>=c-2 && j+1==i)
28                 arr[i--][j] = val++;
29         }
30
31         for(int x=0;x<n;x++) {
32             for(int y=0;y<n;y++) {
33                 System.out.print(arr[x][y] + " ");
34             }
35             System.out.println();
36         }
37     }
38 }
```

Console

```
Enter No of Rows : 5
1 2 3 4 5
16 17 18 19 6
15 24 25 20 7
14 23 22 21 8
13 12 11 10 9
```

Java Work - ZSGS/src/Arrays\_DAY8/fourth.java - Eclipse IDE

```
1 package Arrays_DAY8;
2
3 import java.util.Scanner;
4
5 /*4. Initialize a jagged array with N rows with weights of N persons.
6 Each person can have different number of weights.
7 Write
8     a. A function to enter the weight of any user at any time.
9     b. A function to calculate the minimum weight of the nth person.*/
10 public class fourth {
11     static Scanner obj = new Scanner(System.in);
12
13     public static void main(String[] args) {
14         System.out.print("Enter no of Person : ");
15         int n = obj.nextInt();
16         int arr[][] = new int[n][];
17         for(int i=0;i<n;i++) {
18             System.out.print("Enter No of Weight for person "+ (i+1) + " : ");
19             addWeight(arr,i, obj.nextInt());
20         }
21
22         System.out.print("Enter person to display : ");
23         int d=obj.nextInt();
24         displayWeight(arr,d);
25     }
26
27     static void addWeight(int arr[][],int i,int n) {
28         int temp[] = new int[n];
29         System.out.print("Enter Weight of person "+(i+1)+" : ");
30         for(int j=0;j<n;j++) {
31             temp[j] = obj.nextInt();
32         }
33         arr[i] = temp;
34     }
35
36     static void displayWeight(int arr[][], int i) {
37         System.out.println("Weight of Person "+i);
38         for(int j=0;j<arr[i-1].length;j++) {
39             System.out.print(arr[i-1][j] + " ");
40         }
41     }
42 }
```

Console

```
Enter no of Person : 4
Enter No of Weight for person 1 : 4
Enter Weight of person 1 : 1 2 3 4
Enter No of Weight for person 2 : 3
Enter Weight of person 2 : 1 2 3
Enter No of Weight for person 3 : 6
Enter Weight of person 3 : 1 2 3 4 5 6
Enter No of Weight for person 4 : 2
Enter Weight of person 4 : 1 2
Enter person to display : 3
Weight of Person 3
1 2 3 4 5 6
```

