

Lab 2

```
import sun.plugin.javascript.navig.Array;

import java.util.Arrays;

/**
 * Created by user on 16/01/2022.
 */
public class Arrayoperation1 {
    public static void main(String[] args) {
        int a[]={11,12,13,14,15};
        System.out.println(Arrays.toString(a));
        System.out.println("after reverse");
        System.out.println(Arrays.toString(reverse(a)));
    }
    public static int[] reverse(int[]x){
        int n=x.length-1;
        for (int i = 0; i < x.length/2 ;i++) {
            int t=x[i];
            x[i]=x[n];
            x[n]=t;
            n--;
        }
        return x;
    }
}

import java.util.Arrays;

/**
 * Created by user on 16/01/2022.
 */
public class RotateArray {
    public static void main(String[] args) {
        int a[]={11,12,13,14,15};
        System.out.println(Arrays.toString(a));
        System.out.println("after shift left");
        System.out.println(Arrays.toString(shiftleft(a)));
    }
    public static int[] shiftleft (int[]x)
    {
        int t =x[0];
        for (int i = 0; i < x.length; i++) {
            x[i]=x[i+1];
        }
        x[x.length-1]=t;
        return x;
    }
}
```

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    }
}

import java.util.Arrays;

/**
 * Created by user on 16/01/2022.
 */
public class RoterArray {
    public static void main(String[] args) {
        int a[]={11,12,13,14,15};
        System.out.println(Arrays.toString(a));
        System.out.println("after shift right");
        System.out.println(Arrays.toString(shiftright(a)));
    }
    public static int[]shiftright (int[]y)
    {
        int t=y[y.length-1];
        for (int i = y.length; i>0; i++) {
            y[i]=y[i-1];
        }
        y[0]=t;
        return y;
    }
}

```

```

import java.util.Arrays;
import java.util.Scanner;

/**
 * Created by user on 16/01/2022.
 */
public class ArrayOperator {
    int x[];
    int numofElements;
    public ArrayOperator(){
        x=new int[5];
        numofElements=0;
    }
    public int addElment(int e){
        if (numofElements<x.length){
            x[numofElements]=e;
            numofElements++;
            return 0;
        }
        return -1;
    }
}

public static void main(String[] args) {
    ArrayOperator test=new ArrayOperator();
    Scanner in=new Scanner(System.in);
    System.out.println("input elements");
    for (int i = 0; i <7 ; i++) {

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        if (test.addElement(in.nextInt())==0)
            System.out.println("added sucessfully");
        else
            System.out.println("array is full");
        System.out.println(Arrays.toString(test.x));
    }
}
}

```

1. Write a Java method that Reverse an array using another array.
2. `import java.util.Arrays;`

```

/**
 * Created by USER on 31/01/2022.
 */
public class Reverse {
    public static void main(String[] args) {
        int[] a={1,2,3,4,5};
        System.out.println(Arrays.toString(a));
        System.out.println("enter nmber arrays");
        System.out.println(Arrays.toString(b(a)));
    }
    public static int[] b(int[] w){
        int e=w.length-1;
        for (int i=0;i<w.length/2;i++){
            int d=w[i];
            w[i]=w[e];
            w[e]=d;
            e--;
        }
        return w;
    }
}

```

3. Write a Java method that Clone an array to a backup array?

```

import java.util.Arrays;

/**
 * Created by USER on 31/01/2022.
 */
public class CopiSpare {
    public static void main(String[] args) {
        int[] a ={1,2,3,4,5,6};
        System.out.println(Arrays.toString(a));
        System.out.println("copi");
        int[] z=(int[])Arrays.copyOf(a,6);
        for (int i=0;i<i;i++){

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        System.out.println(Arrays.toString(z));
    }
}

```

4. Write a Java method that repeatedly selects and removes a random entry from an array until the array holds no more entries?

5. `import java.util.Random;`

```

/**
 * Created by USER on 31/01/2022.
 */
public class RepeatDelat {
    public static void main(String[] args) {
        int[] w = {10, 20, 30, 40, 50, 60};
        removeElements(w);
    }

    static void removeElements(int[] w) {
        Random m = new Random();
        while (w.length > 0) {
            int in = m.nextInt(w.length);
            System.out.println("=after"+in+"=before"+w[in]);
            int[] e = new int[w.length - 1];
            for (int i = 0; i < in; i++)
                e[i] = w[i];
            for (int i = in; i < w.length - 1; i++)
                e[i] = w[i + 1];
            w = e;
        }
    }
}

```