Java Lab 4

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CB.SC.I5DAS20032

```
/*1.    Write a Java program to print the prime numbers between 1 to 100.*/

package Lab4;

public class prime {
    public static void main(String[] args ){
        for (int i = 2; i <= 100; i++) {
            boolean prime = true;

            for (int j = 2; j < i; j++) {
                if (i % j == 0) {
                    prime = false;
                    break;
                }
            }
            if (prime) {
                System.out.println(i);
            }
        }
    }

}
```

```
(base) D:\GitHub\Coursework-Sem5> d: && cd d:\GitHub\Coursework-Sem5 && cmd /C ""C:\Program Files\Eclipse Adoptium\jdk-17.0.4.8-hotspot\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users
\orect\AppData\Roaming\Code\User\workspaceStorage\69deb733d255d3ccde7531c6d2668886\redhat.java\jdt_ws\Coursework-Sem5_a1544248\bin Lab3.prime "
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83
89
97
```

```
/*2.    Write a Java program to accept the strings from the user and print the ascii value of the individual character in the string.*/

package Lab4;

import java.util.Scanner;

public class asciiChars {
```

```
    public static void main(String[] args ){
        try (Scanner input = new Scanner(System.in)) {
            String str = input.nextLine();

            for (int i = 0; i < str.length(); i++) {
                System.out.println((int) str.charAt(i));
            }
        }
    }

}
```

```
(base) D:\GitHub\Coursework-Sem5> cmd /C ""C:\Program Files\Eclipse Adoptium\jdk-17.0.4.8-hotspot\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\orect\AppData\Roaming\Code\User\workspaceStorage\69deb733d255d3ccde7531c6d2668886\redhat.java\jdt_ws\Coursework-Sem5_a1544248\bin Lab3.asciiChars "
BOB
66
79
66
```

```
/*3.  Write a Java program to find the maximum and minimum element in an array.*/

package Lab4;

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

public class minMax {
    public static void main(String[] args ){
        try (Scanner input = new Scanner(System.in)) {

            System.out.println("Enter the number of elements in the array: ");
            int len = input.nextInt();

            System.out.println("Enter the elements of the array: ");

            int[] arr = new int[len];

            int min = Integer.MAX_VALUE;
            int max = Integer.MIN_VALUE;

            for (int i = 0; i < len; i++) {
                arr[i] = input.nextInt();

                if (arr[i] < min) {
                    min = arr[i];
                }

                if (arr[i] > max) {
                    max = arr[i];
                }
            }

            System.out.println(Arrays.toString(arr));
            System.out.println("Min: " + min);
            System.out.println("Max: " + max);
        }
    }
}
```

```
(base) D:\GitHub\Coursework-Sem5> cmd /C ""C:\Program Files\Eclipse Adoptium\jdk-17.0.4.8-hotspot\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\orect\AppData\Roaming\Code\User\workspaceStorage\69deb733d255d3ccde7531c6d2668886\redhat.java\jdt_ws\Coursework-Sem5_a1544248\bin Lab3.minMax "
Enter the number of elements in the array:
5
Enter the elements of the array:
23
5
21
86
99
[23, 5, 21, 86, 99]
Min: 5
Max: 99
```

```
/*4.  Write a Java program to transform a given integer to String format.*/

package Lab4;
```

```
import java.util.Scanner;

public class numString {
    public static void main(String[] args ){
        try (Scanner input = new Scanner(System.in)) {
            int num = input.nextInt();

            System.out.println(String.valueOf(num));
        }
    }

}
```

```
(base) D:\GitHub\Coursework-Sem5> cmd /C ""C:\Program Files\Eclipse Adoptium\jdk-17.0.4.8-hotspot\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\orect\AppData\Roaming\Code\User\workspaceStorage\69deb733d255d3ccde7531c6d2668886\redhat.java\jdt_ws\Coursework-Sem5_a1544248\bin Lab3.numString "
5
5
```

```
/*5.  Write a Java program to find a substring inside a string (Both accepted from the user as input).*/

package Lab4;

import java.util.Scanner;

public class checkSubstring {
    public static void main (String[] args) {
        try (Scanner input = new Scanner(System.in)) {
            System.out.println("Enter string: ");
            String str = input.nextLine();
            System.out.println("Enter substring: ");
            String sub = input.nextLine();

            System.out.println("Substring in string: " + str.contains(sub));
        }
    }
}
```

```
(base) D:\GitHub\Coursework-Sem5> cmd /C ""C:\Program Files\Eclipse Adoptium\jdk-17.0.4.8-hotspot\bin\java.exe" -XX:+ShowCodeDetailsInExceptionMessages -cp C:\Users\orect\AppData\Roaming\Code\User\workspaceStorage\69deb733d255d3ccde7531c6d2668886\redhat.java\jdt_ws\Coursework-Sem5_a1544248\bin Lab3.checkSubstring "
Enter string:
Parent String Test
Enter substring:
ing
Substring in string: true
```