Java Coding Test

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1. **Write a java code to perform swapping of two numbers.**

Source Code:

```
import java.util.*;
public class SwappingNumbers {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter the value of a: ");
		int a = sc.nextInt();
		System.out.println("Enter the value of b: ");
		int b = sc.nextInt();
		int c = a+b;
		int x = c-a;
		int y = c-b;
		System.out.println("After Swapping of 2 numbers: ");
		System.out.println("Value of a: "+x);
		System.out.println("Value of b: "+y);
	}
}
```

OutPut:

```
Enter the value of a:
1
Enter the value of b:
2
After Swapping of 2 numbers:
Value of a: 2
Value of b: 1
```

2. **Write a java program to get largest among these three numbers.**

Source Code:

```
import java.util.*;
public class LargestNumber {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter the value of a: ");
		int a = sc.nextInt();
		System.out.println("Enter the value of b: ");
		int b = sc.nextInt();
		System.out.println("Enter the value of c: ");
```

```
            int c = sc.nextInt();

            if(a>b && a>c)
            {
                  System.out.println("The value of "+a+" is greater among 3
numbers");
           }
            else if(b>a && b>c)
            {
                  System.out.println("The value of "+b+" is greater among 3
numbers");
            }
            else
            {
                  System.out.println("The value of "+c+" is greater among 3
numbers");
            }
      }

}
```

OutPut:

```
Enter the value of a:
20
Enter the value of b:
60
Enter the value of c:
50
The value of 60 is greater among 3 numbers
```

3. **Write a java program to find the prime numbers from 1 to 50.**

Source Code:

```
import java.util.*;
public class PrimeNumbers {

      public static void main(String[] args) {
            // TODO Auto-generated method stub
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter how many numbers you want to print:");
            System.out.println("Enter the lower number: ");
            int L = sc.nextInt();
            System.out.println("Enter the higher number: ");
            int H = sc.nextInt();
            prime p = new prime();
            for (int i=L;i<H;i++)
            {
                  boolean res = p.checkprime(i);
                  if(res==true)
                  {
                        System.out.println(i);
                  }
            }
      }

}
```

```
class prime
{
	boolean checkprime(int n) {
		if(n==0 || n==1)
		{
			return false;
		}
		else if(n==2)
		{
			return true;
		}
		else
		{
			for(int i=2;i<n;i++)
			{
				if(n%2==0)
				{
					return false;
				}
			}
			return true;
		}
	}
}
```

OutPut:

```
Enter how many numbers you want to print:
Enter the lower number:
1
Enter the higher number:
50
2
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49
```

4. **Given String "Edubridge Learning"**
    - **The Letter 'b' is stored at which position**

Source Code:

```
public class StringMethods {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		String s1 = new String("Edubridge Learning");
		System.out.println("The index value of b is"+s1.indexOf("b"));
	}
}
```

OutPut:

```
The index value of b is 3
```

- **Replace the word "Edubridge" by "Java".**

Source Code:

```
public class StringMethods {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		String s1 = new String("Edubridge Learning");
		System.out.println("The String value is "+s1);
		String s2=s1.replace("Edubridge", "Java");
		System.out.println("The replace string value is "+s2);
	}
}
```

Output:

```
The String value is Edubridge Learning
The replace string value is Java Learning
```

- **Convert the above string as Character Array**

Source Code:

```
public class StringMethods {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		String s1 = new String("Edubridge Learning");
		int n = s1.length();
		for(int i=0;i<n;i++)
		{
		System.out.println("The String value is "+s1.charAt(i));
		}
	}
}
```

OutPut:

```
The String value is E
The String value is d
The String value is u
The String value is b
The String value is r
The String value is i
The String value is d
The String value is g
The String value is e
The String value is
The String value is L
The String value is e
The String value is a
The String value is r
The String value is n
The String value is i
The String value is n
The String value is g
```

5. **Write a java program to compare two strings lexicographically .**

Source Code:

```
import java.util.*;
public class StringCompare {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter the first string: ");
		String s1=sc.next();
		System.out.println("Enter the second string: ");
		String s2=sc.next();
		int s3 = s1.compareTo(s2);
		int s4 = s1.compareToIgnoreCase(s2);
		System.out.println("CompareTo case value: "+s3);
		System.out.println("CompareToIgnore Case value: "+s4);
		}
}
```

Output:

```
Enter the first string:
JAVA
Enter the second string:
java
CompareTo case value: -32
CompareToIgnore Case value: 0
```

6. **Write a java program to create a simple calculator using a switch case.**

Source Code:

```
import java.util.*;
public class SimpleCalculator {
```

```
	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter the value of first number:");
		int n1=sc.nextInt();
		System.out.println("Enter the value of second number:");
		int n2=sc.nextInt();
		System.out.println("Enter the operation like add, sub, mul, div,
mod: ");
		String operator=sc.next();
		switch(operator)
		{
		   case "add":
			int output1 = n1+n2;
			System.out.println("The Addition value is "+output1);
			break;

		   case "sub":
			int output2 = n1-n2;
			System.out.println("The Subtraction value is "+output2);
			break;

		   case "mul":
			int output3 = n1*n2;
			System.out.println("The Multiplication value is "+output3);
			break;

		   case "div":
			int output4 = n1/n2;
			System.out.println("The Division value is "+output4);
			break;

		   case "mod":
			int output5 = n1%n2;
			System.out.println("The Modulus value is "+output5);
			break;

		   default:
			System.out.println("Sorry!!! Your entered operation is not
there.");
			break;

		}
	}

}
```

Output:

```
Enter the value of first number:
15
Enter the value of second number:
10
Enter the operation like add, sub, mul, div, mod:
mul
The Multiplication value is 150
```

7. **Write a java program to print the numbers 0 1 1 2 3 5 8 13 21 34 inn this order using a loop.**

Source Code:

```
public class FibanocciSreies {
	public static void main(String[] args) {
		// TODO Auto-generated method stub
		int a=0,b=1,i,count=10;
		System.out.println("The fibanocci values are: ");
		for(i=2;i<count;i++)
		{
			int c=a+b;
			System.out.print(" "+c);
			a=b;
			b=c;
		}
	}
}
```

Output:

```
The fibanocci values are:
1 2 3 5 8 13 21 34
```

8. **Write a Program to reverse a String with out using reverse() method.**

Source Code:

```
import java.util.*;
public class StringReverse {
	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter the String: ");
		String s = sc.next();
		System.out.println("After reversing the String: ");
		for(int i=s.length();i>0;i--)
		{
			System.out.println(s.charAt(i-1));
		}
	}
}
```

Output:

```
Enter the String:
Edubridge
After reversing the String:
e
g
d
i
r
b
u
d
E
```

9. Given Array {12,20,11,40,23,6}
Find the second largest element in the given array.

Source Code:

```
import java.util.Arrays;

public class ArrayProgram {
	public static int SecondLargest(int a[],int total)
	{
		Arrays.sort(a);
		return a[total-2];
	}

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		int a[] = {12,20,11,40,23,6};
		System.out.println("Second Largest Number: "+SecondLargest(a,6));
	}
}
```

Output:

```
Second Largest Number: 23
```

10. **Print the below pattern.**

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6

Source Code:

```
import java.util.Scanner;

public class PatternProgram {
	public static void numericalPattern(int rows) {
		for(int i=1;i<rows;i++)
		{
			for(int j=1;j<=i;j++)
			{
				System.out.print(j+" ");
			}
			System.out.println();
		}
	}
	public static void main(String[] args) {
		// TODO Auto-generated method stub

		Scanner input=new Scanner(System.in);

		System.out.println("How many rows?:");

		int rowsvalue=input.nextInt();
```

```
            numericalPattern(rowsvalue);

        }
}
```

OutPut:

```
How many rows?:
7
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
1 2 3 4 5 6
```