**Computer Programming - II**

Course Code: -CS3CO08 Lab Manual



By: Submitted to:

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EN20CS301457

**21. Write a program to take string input from user in java.**

**INPUT:**

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

System.out.println("Sushant sharma”)

System.out.println("EN20CS301457");

String s;

System.out.println("Enter the string");

s=sc.nextLine();

System.out.println(s);

}

}

OUTPUT:

Sushant sharma

EN20CS301457

Enter the string

string input test

String input:string input test

PS C:\Users\Hp>

**22. Write a program to check string is empty in java.**

**INPUT:**

import java.util.Scanner;

public class Main

{

    static void isEmpty(String s){

        if(s.length()==0){

            System.out.println("String is empty");

        }

        else{

            System.out.println("String is not empty");

        }

    }

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);

        System.out.println("Sushant Sharma");

        System.out.println("EN20CS301457");

        String s="";

        String s1="not empty";

        isEmpty(s);

        isEmpty(s1);

    }

}

OUTPUT:

Sushant Sharma

EN20CS301457

String is empty

String is not empty

PS C:\Users\Hp>

**23. Write a program to determine length or size of string in java.**

**INPUT:**

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

System.out.println("Sushant Sharma");

System.out.println("EN20CS301457");

String s="";

String s1="length test"; // should be 11

System.out.println("Size of string s is "+s.length());

System.out.println("Size of string s1 is "+s1.length());

}

}

OUTPUT:

Sushant Sharma

EN20CS301457

Size of string s is 0

Size of string s1 is 11

PS C:\Users\Hp>

**24. Write a program to prove string is immutable.**

**INPUT:**

import java.util.Scanner;

public class Main{

    static void referenceCheck(String str1, String str2){

        if(str1==str2){

            System.out.println("Both pointing to same reference");

        }

        else{

            System.out.println("Both pointing to different reference");

        }

    }

    public static void main(String[] args) {

        System.out.println("Sushant sharma");

        System.out.println("EN20CS301457");

        String str1= "hello";

        String str2= "hello";

        System.out.println("Before Modification");

        referenceCheck(str1, str2);

        str1 += "sir";

        System.out.println("After Modification");

        referenceCheck(str1, str2);

    }

}

OUTPUT:

Sushant sharma

EN20CS301457

Before Modification

Both pointing to same reference

After Modification

Both pointing to different reference

PS C:\Users\Hp>

**25. Write a program to replace lower case characters with upper case characters or vice versa.**

INPUT:

import java.util.Scanner;

public class Main

{

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);

        System.out.println("Sushant sharma");

        System.out.println("EN20CS301457");

        String str1="HELLO";

        String str2="hello";

        System.out.println("Lowercase of str1 is "+str1.toLowerCase());

        System.out.println("Uppercase of str2 is "+str2.toUpperCase());

    }

}

OUTPUT:

Sushant sharma

EN20CS301457

Lowercase of str1 is hello

Uppercase of str2 is HELLO

PS C:\Users\Hp>

**26. Write a program to search a word in a string.**

**INPUT:**

import java.util.Scanner;

public class Main

{

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);

        System.out.println("Sushant Sharma");

        System.out.println("EN20CS301457");

        String s="hello testing java program.";

        System.out.println(s.indexOf("java"));

    }

}

OUTPUT:

Sushant Sharma

EN20CS301457

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PS C:\Users\Hp>

**27. Write program to concatenate two strings.**

**INPUT:**

public class Main

{

public static void main(String[] args) {

System.out.println("Sushant Sharma");

System.out.println("EN20CS301457");

String s="concatination ";

System.out.println(s.concat(" program"));

}

}

**OUTPUT:**

**Sushant Sharma**

**EN20CS301457**

**concatination program**

**PS C:\Users\Hp>**

**28. Write a program to justify string and buffer string.**

**INPUT:**

public class Main{

public static void main(String args[]){

System.out.println("Sushant Sharma");

System.out.println("EN20CS301457");

String str1="Hello ";

str1=str1.concat("java");

System.out.println(str1);

StringBuffer str2=new StringBuffer("Hello ");

str2.append("java");

System.out.println(str2);

}

}

OUTPUT:

Sushant Sharma

EN20CS301457

Hello java

Hello java

PS C:\Users\Hp>

**29. Write a program to demonstrate Thread class and its method.**

**INPUT:**

class Main extends Thread {

public void run()

{

System.out.println("Thread is running created by extend meathod ");

}

public static void main(String[] args)

{

System.out.println("Sushant sharma");

System.out.println("EN20CS301457");

Main myThread = new Main();

myThread.start();

}

}

OUTPUT:

Sushant sharma

EN20CS301457

Thread is running created by extend meathod

PS C:\Users\Hp>

**30. Write program to demonstrate Exception class and programs to handle different types of exceptions using try-catch finally block, throws etc.**

**INPUT:**

public class Main {

    public static void main(String args[]) {

       int value1=20;

       System.out.println("Sushant Sharma");

       System.out.println("EN20CS301457");

       try{

          System.out.println(value1/0);

       }

       catch (ArithmeticException e) {

          System.out.println("Division by zero is not defined");

       }

       finally{

        System.out.println("this is finally block");

       }

    }

 }

OUTPUT:

Sushant Sharma

EN20CS301457

Division by zero is not defined

this is finally block

PS C:\Users\Hp>

**31. Write a program to perform various (read, write etc) operation on file.**

**INPUT:**

import java.io.\*;

import java.nio.file.\*;

public class Main {

    public static void main(String[] args) throws IOException {

        System.out.println("Sushant Sharma");

        System.out.println("EN20CS301457");

        int ch;

        String text = "Hello java!";

        Path fileName = Path.of("file.txt");

        Files.writeString(fileName, text);

        String file\_content = Files.readString(fileName);

        System.out.println(file\_content);

        System.out.println();

        System.out.println("Reading File");

        System.out.println();

        FileReader fr = null;

        try {

            fr = new FileReader("file.txt");

        } catch (FileNotFoundException fe) {

            System.out.println("File not found");

        }

        while ((ch = fr.read()) != -1)

            System.out.print((char) ch);

        fr.close();

    }

}

OUTPUT:

Sushant Sharma

EN20CS301457

Hello java!

Reading File

Hello java!

PS C:\Users\Hp>