**Assignment-1**

1. Write a java program to reverse a string without using the inbuilt method?

Ans:

public class revStr

{

public static void main(String args[])

{

String sr="Raju Kushwah";

String revString="";

for(int i=sr.length()-1;i>=0; --i)

{

revString +=sr.charAt(i);

}

System.out.println(revString);

}

}

//output: hawhsuK ujaR

1. Write a java program to know whether the given string is palindrome?

Ans:

import java.util.\*;

class Palindrome

{

public static void main(String args[])

{

String a, b = "";

Scanner s = new Scanner(System.in);

System.out.print("Enter a string:");

a = s.nextLine();

int n = a.length();

for(int i = n - 1; i >= 0; i--)

{

b = b + a.charAt(i);

}

if(a.equalsIgnoreCase(b))

{

System.out.println(a+ " is a palindrome.");

}

else

{

System.out.println(a+ " is not a palindrome.");

}

}

}

1. Write a java program to convert upper case to lower case and vice versa?

Ans:

public class UpperToLower

{

public static void main(String[] args)

{

String S1 = "RAJU KUSHWAH";

String S2 = "";

for (int i = 0; i < S1.length(); i++)

{

if ((S1.charAt(i) >= 'a') && (S1.charAt(i) <= 'z'))

{

S2 = S2 + (char) (S1.charAt(i) - 32);

}

else if ((S1.charAt(i) >= 'A') && (S1.charAt(i) <= 'Z'))

{

S2 = S2 + (char) (S1.charAt(i) + 32);

}

}

System.out.println(S2);

}

}

//OUTPUT: raju kushwah

1. Write a java program to remove a particular character from a String?

Ans:

public class RemoveChar

{

public static void main(String args[])

{

String str = "I am Raju";

System.out.println(removeCharAt(str, 5));

}

public static String removeCharAt(String s, int pos)

{

return s.substring(0, pos) + s.substring(pos + 1);

}

}

//output: I am aju

1. Write a java program to find the index of a substring?

Ans:

public class FindIndex

{

public static void main(String[] args)

{

String strOrig = "Java Programmer";

int intIndex = strOrig.indexOf("o");

if(intIndex == - 1)

{

System.out.println("Not found");

}

else

{

System.out.println("Found at index " + intIndex);

}

}

}

//output: Found at index 7

**Assignment-2**

1. What is a String in Java?

Ans: String is collection of character which are enclosed within double quote (example: “ abcd” ). String it refers to an Object in java present in package called java.lang.String.

1. Types of String in Java are?

Ans: In java String are of two types:

1. Mutable String
2. Immutable String
3. In how many ways can you create string objects in Java?

Ans: String object can be created using two ways:

1. Using String Literal.
2. Using new keyword.

The objects created using the new operator are stored in the heap memory and objects created using string literals are stored in the string constant pool.

String s1 = new String("maths"); //Creating string object using new operator

String s2 = "maths"; //Creating string object using string literal

1. What is a string constant pool?

Ans: String objects are the most commonly used data objects in Java. Hence, Java has a special arrangement to store the string objects. String Constant Pool is one such arrangement. String Constant Pool is the heap memory space dedicated to storing string objects created with string literals. In the String Constant Pool, there will be no two string objects with the same content.

When you use a string literal to create a string object, JVM first checks the object's content. If there is an object in the string constant pool with the same content, then it returns the reference to that object. It doesn’t create a new object. If the content differs from the existing objects, nonevent is generated.

1. What do you mean by mutable and immutable objects?

Ans: Mutable String:-Once if we create a String, on that String if we try to perform any operation and if those changes get reflected in the same object then such strings are called “Mutable String”.

Example: StringBuffer, StringBuilder

Immutable String:-Once if we create a String, on that String if we try to perform any operation then those changes won’t be reflected in the same object, rather a new object will be created.Such type of String is called as “Immutable String”.

Example: String

1. Where exactly is the string constant pool located in the memory?

Ans: Inside the heap memory. JVM reserves some part of the heap memory to store string objects created using string literals. In Java, strings are special. String types receive special treatment in Java that other types do not. For example, to create the string objects, you do not need to use the "new"‘keyword. Whereas to create other types of objects, you have to use the "new" keyword. Like this, strings enjoy some special attention from Java. This attention is worth the while, because the strings are used almost everywhere while developing any kind of application.

**Assignment-3**

1. What is Mutable String in Java Explain with an example?

Ans: Once if we create a string, on that string if we try to perform any operation and if those changes get reflected in the same object then such strings are called Mutable String.

Example:

public class stringpro15

{

public static void main(String args[])

{

StringBuilder sb = new StringBuilder("Virat");

System.out.println(sb);

sb.append("Kohli");

System.out.println(sb);

}

}

//Output:

// Virat

// ViratKohli

1. WAP to reverse a String?

Input: “PWSKILLS”

Output:“SLLIKSWP”

Ans:

class stringpro24

{

public static void main(String args[])

{

StringBuilder sb = new StringBuilder("PWSKILLS");

System.out.println(sb.reverse());

}

}

//Output: SLLIKSWP

1. Write a program to reverse a sentence while preserving the position

Input: Think Twice

Output: “knihT eciwT”

Ans:

public class ReverseEachWords

{

public static void main(String[] args)

{

String str = "Think Twice";

String[] words = str.split(" ");

String revString = "";

for(int i = 0; i < words.length; i++)

{

String word = words[i];

String revWord = "";

for(int j = word.length() - 1; j >= 0; j--)

{

revWord = revWord + word.charAt(j);

}

revString = revString + revWord + " ";

}

System.out.println(revString);

}

}

//Output: knihT eciwT

1. Write a program to sort a String Alphabetically.

Ans:  import java.util.Arrays;

import java.util.Scanner;

class SortAStringAlphabetically

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.print("Enter String :");

String s = sc.nextLine();

char[] c = s.toCharArray();

Arrays.sort(c);

System.out.println(c);

}

}

//output:

//Enter String :RAJU

// AJRU

**Assignment-4**

1. Write a simple String program to take input from user?

Ans:

import java.util.Scanner;

public class pro1String\_Input

{

public static void main(String args[])

{

String name = new String();

Scanner sc = new Scanner(System.in);

System.out.println("Enter Your Name:");

name = sc.nextLine();

System.out.println("Your Name="+name);

}

}

Output:

Enter Your Name:

RAJU KUSHWAH

Your Name=RAJU KUSHWAH

1. How do you concatenate two strings in Java? Give an example?

Ans: You can concatenate two strings in Java using the + operator/ += operator/ concat() method defined in the java.lang.String class.:

public class StringConcate

{

public static void main(String args[])

{

String a="Raju";

String b="Kushwah";

System.out.println(b.concat(a));

}

}

Output:

RajuKushwah

1. How do you find the length of a string in Java Explain with an example?

Ans: The length of a string in Java can be found using the length() public class StringLength

{

public static void main(String args[])

{

String a="Raju";

System.out.println(a.length());

}

}

Output:4

1. How do you compare two strings in Java? Give an Example?

Ans: Two strings in Java can be compared using the equals() method:

public class StringMethod

{

public static void main(String args[])

{

String a="Raju";

String b="Raju";

System.out.println(a.equals(b));

}

}

Output:True(String is Same Output is True/String is not same Output is false)

1. Write a program to find the length of the string "refrigerator"?

Ans:

public class StringLength

{

public static void main(String args[])

{

String a=" refrigerator ";

System.out.println(a.length());

}

}

Output:12

1. Write a program to check if the letter 'e' is present in the word 'Umbrella'?

Ans: class CheckLetter

{

public static void main(String[] args)

{

String str = "Umbrella";

boolean present = false;

for(int i = 0;i<str.length();i++)

{

if(str.charAt(i) == 'e')

{

present=true;

break;

}

}

System.out.println(present);

}

}

Output: true

1. Write a program to delete all consonants from the string "Hello, have a good day"?

Ans:

import java.util.Scanner;

class delete

{

public static void main(String args[])

{

String s;

int j=0;

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

Scanner so=new Scanner(System.in);

s= so.nextLine();

char ch[]=new char[20];

for(int i=0;i<s.length();i++)

{

if(s.charAt(i)=='a'|| s.charAt(i)=='A'||s.charAt(i)=='e'||

s.charAt(i)=='E'||s.charAt(i)=='i'|| s.charAt(i)=='I'||

s.charAt(i)=='o'||s.charAt(i)=='O'||s.charAt(i)=='U'|| s.charAt(i)=='u')

{

ch[j++]=s.charAt(i);

}

else

{

continue;

}

}

for(int i=0;i<j;i++)

{

System.out.print(ch[i]);

}

System.out.println();

}

}

//Output

// Enter a string

// Hello, have a good day

// eoaeaooa