Strings in Java

Assignment Questions:

1. What is Mutable String in java explain with an example?

Ans → In Java, a mutable string is a string that can be modified, whereas an immutable string is a string that cannot be modified once it is created. The most commonly used mutable string class in Java is StringBuilder.

Example: // create a new StringBuilder object with the initial string "Hello"

StringBuilder sb = new StringBuilder("Hello");

// append some text to the end of the string

sb.append(", world!");

// insert some text at a specific position in the string

sb.insert(5, " there");

// replace a substring with another string

sb.replace(0, 5, "Hi");

// convert the StringBuilder object to a String and print it

String result = sb.toString();

System.out.println(result); // Output: "Hi there, world!"

1. WAP to reverse a String

Input: “PWSKILLS”

Output: “SLLIKSPW”

Ans → public class Reverse

{

public static void main(String[] args) {

String string = "PWSKILLS";

//Stores the reverse of given string

String reversedStr = "";

//Iterate through the string from last and add each character to variable reversedStr

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

reversedStr = reversedStr + string.charAt(i);

}

System.out.println("Original string: " + string);

//Displays the reverse of given string

System.out.println("Reverse of given string: " + reversedStr);

}

}

1. WAP to reverse a sentence while preserving the position

Input: Think Twice

Output: “knihT eciwT”

Ans → public class Reverse

{

public static void main(String[] args) {

String str1 = "Think Twice";

String str2 = "";

String[] sarr = str1.split(" ");

for(String elem :sarr)

{

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

{

str2=str2+ elem.charAt(i);

}

str2=str2+" ";

}

System.out.println("Original sentence: " + str1);

System.out.println("Reversed sentence: " + str2);

}

}

1. WAP to sort String Alphabetically

Ans → public class StringSorting {

public static void main(String[] args) {

String inputString = "cabed";

String sortedString = sortString(inputString);

System.out.println(sortedString); // Output: "abcde"

}

public static String sortString(String input) {

char[] chars = input.toCharArray();

Arrays.sort(chars);

return new String(chars);

}

}