**15-05-2025**

**DAY-10**

**STRINGS**

To get array length arr.length

To get string array str.length()

Convert string into char array then reverse

- length() - Returns the length of the string.

- charAt(int index) - Returns the character at the specified index.

- substring(int beginIndex, int endIndex) - Extracts a portion of the string.

- contains(CharSequence s) - Checks if the string contains the specified sequence.

- startsWith(String prefix) / endsWith(String suffix) - Checks if the string starts/ends with a given substring.

- toUpperCase() / toLowerCase() - Converts the string to uppercase or lowercase.

- trim() - Removes leading and trailing spaces.

- replace(String old, String new) - Replaces occurrences of a substring.

- split(String regex) - Splits the string into an array based on a regex.

- equals(String anotherString) / equalsIgnoreCase(String anotherString) - Compares two strings.

-> Strings are classes and Arrays are objects

->The sequence of characters that ends with null character is called Strings

->Strings are immutable so they are fixed, we can't modify the string

->All the array Objects will be created in Heap memory but Strings are created inside Heap Memory in StringPool

ex:

public class Main {

public static void main(String[] args) {

String a = "Hello";

String b = "Hello";

String c = new String("Hello");

String d = new String("Hello");

System.out.println(a == b); //true

System.out.println(c == d); //false

}

}

-> while comparing Strings a and b we will get true because both the strings are created at same memory location

-> while comparing Stringd c and d they are actually objects which are created at two different memory locations so we get false

->From the above example:-

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

System.out.println(c.equals(d)); //true

str1.equals(str2) is used to compare data where as == used to compare mem-locations

-> For a give array we have to print possible arrays it should be in a sequence but not continuous is called subset.

-> in an array if we have n number of elements we get 2^n subsets