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Section : C

OOP LAB # 13

Objective: To explore the strings class built-in methods.

Task#01: Construct a program which shows the implementation of concat() string class built-in method.

Source code:

```
package lab13t1;
public class Lab13T1 {
public static void main(String[] args) {
char string[]={'M','y',' ','n','a','m','e'};
String s1=new String(string);
String s2=" is Ahmad";
//concat() method will join the two strings:
System.out.println(s1.concat(s2));
}
}
```

Output:

```
My name is Ahmad
```

Task#02: Construct a program which shows the implementation of compareTo() string class built-in method.

Source code:

```
package lab13t2;
public class Lab13t2 {
public static void main(String[] args) {
String str1 = "String method tutorial";
String str2 = "compareTo method example";
String str3 = "String method tutorial";
String str4 = "Negan";
String str5 = ""; //empty string
/*it comparesstring lexicographically it means it compares
the unicode values of characters*/
int var1 = str1.compareTo( str2 );
System.out.println("str1 & str2 comparison: "+var1);
int var2 = str1.compareTo( str3 );
System.out.println("str1 & str3 comparison: "+var2);
int var3 = str2.compareTo("compareTo method example");
System.out.println("str2 & string argument comparison: "+var3);
//it would return the length of str1 in positive number
System.out.println(str4.compareTo(str5)); // 5
//it would return the length of str1 in negative number
System.out.println(str5.compareTo(str4)); //-5
}
}
```

Output:

```
str1 & str2 comparison: -16
str1 & str3 comparison: 0
str2 & string argument comparison: 0
5
-5
```

Task#03: Construct a program which shows the implementation of equals() string class built-in method.

Source code:

```
package lab13t3;
public class Lab13t3 {
public static void main(String[] args) {
char string[]={'M','y',' ','n','a','m','e'};
String s1=new String(string);
String s2=" is Ahmad";
String s3="";//empty
String s4="";//empty
String s5="ABCDEFG";
String s6="abcdefg";
/*Compares two strings. Returns true if the strings
are equal, and false if not*/
System.out.println(s1.equals(s2));//false
System.out.println(s3.equals(s4));//true
//This method is case sensitive so it will return false
System.out.println(s5.equals(s6));//false
}
}
```

Output:

```
false
true
false
```

Task#04: Construct a program which shows the implementation of length() string class built-in method.

Source code:

```
package lab13t4;
public class Lab13t4 {
public static void main(String[] args) {
String s1="Ahmad is my name";
String s2="";//empty
// it returns the length of string spacing is also regarded as character
System.out.println(s1.length());
System.out.println(s2.length());
}
}
```

Output:

```
16
0
```

Task#05: Construct a program which shows the implementation of toUpperCase() string class built-in method.

Source code:

```
package lab13t5;
public class Lab13t5 {
public static void main(String[] args) {
String s1="asdfghjkl";
//convert string to uppercase
System.out.println(s1.toUpperCase());
}
}
```

Output:

```
ASDFGHJKL
```