**STRINGS**

**String:** String is a reference data, other languages implements strings as arrays but java implements them as objects of type string.

When you are creating string using the object type you are creating a string which is non editable.It seem serious restriction but when we need of the altered version of string we create new object.

Eg: string str = new String(“harsha”);

str = “sri harsha”;

System.out.println(str);

o/p: harsha

Here we get the out put as harsha because we cannot change the string i.e string is immutable but we can change it using object reference.

String str = new String(“harsha”);

Str = str.concat(“sri”);

System.out.println(str);

o/p: sri harsha

Here the string is immutable but we have predefined classes in java.lang package which uses strings as mutable

1.StringBuffer

2.StringBuilder ..How do we use string buffer:

eg: StringBuffer str = new StringBuffer(“sri”);

str.append(“harsha”);

System.out.println(str);

o/p: sri harsha.

And how do we use string builder class:

Eg: StringBuilder str = new StringBuilder(“sri”);

Str.append(“harsha”);

System.out.println(str);

o/p: sri harsha

Here we used nothing as reference to change the string just we used methods directly and printing it out hence we can say strings here are mutable ,

By using these classes we can use strings which are mutable...

The only difference between stringbuffer and stringbuilder :

**“Stringbuffer is thread safe whereas Stringbuilder is not threadsafe.”**

Suppose we have an string in number and i need to change it in integer value and do calculations then how to change them in integer or float values and short or long.

**Eg: String str = new String(“123”);**

**Int i = Integer.ParseInt(str);**

**System.out.println(i+3);**

**o/p:126**

Here i will be the value integer value of 123 has been added to 3 to get output.

In similar way we have ways to convert all values

i.e

float,short ,int,long,double,byte.

**Here we changed the datatype from reference to primitive through PARSEINT Method but we need to change something from primitive to reference type**

**Int i =10;**

**String s = i.toString();**

**String s = String.valueof(i);**

We have many predefined methods in string class which is provided by API.

Let us consider some of them:

1. Concat(str)
2. Trim()
3. Equals()
4. tocharArray()
5. chatAt()
6. indexof()
7. toUppercase()
8. toLowercase()
9. trim()
10. replace()
11. replaceAll().....

many of them.

We use all these methods for particular purpose such as trim is used to trim the whitespaces leading to ending of strings.and charAt is used to check the character at particular index.

**Int i = Integer.parseInt(Str);**

**Float f = Float.parseFloat(str);**

**Short s = Short.parseShort(str);**

**Long d = Long.parseLong(Str);**

These are all the ways using parseint methods to convert string format to integer or float format,short ,long.

**Here the parseInt method is static or float?**

**Here the parseInt method is Static method why because it is called through using classname.method way .so,it is static method.**

**How to call a static variable or static method?**

* **Just by classname.(variable /methodname);**

**How to call instance variable or method?**

* **Just by creating object reference and call through it.**

**Syntax is: A d = new A(); //creating object**

**d.(instance variable/instance method);**

**Converting a primitive to reference string:**

We convert primitive datatype to string using the method **toString** and other method called **valueof.**

**Int i = 10;**

**String str = i.toString();**

**Or**

**String str1= String.valueof(i);**

By this we can convert primitive data type to reference data type.

­**Converting an Object to Reference String:**

Converting an object to reference data type is done by to string method only.

Suppose we are having a date class to know the present time and date and year of that time then we use date class.

By using date class we are having an object and converting that obj to string is done by toString method.

Eg: **Date d = new Date();**

**String e = d.toString();**

**System.out.println(“the present time and date and year is”+ e);**