

* wrapper class

In Java we get class corresponding to each primitive type. Such a class is referred as wrapper class.

Srno	primitive type	wrapper class	parent/superclass
1)	boolean	java.lang.boolean	java.lang.Object
2)	byte	java.lang.Byte	java.lang.Number
3)	char	java.lang.Character	java.lang.Object
4)	short	java.lang.Short	java.lang.Number
5)	int	java.lang.Integer	java.lang.Number
6)	float	java.lang.Float	→ ↙
7)	double	java.lang.Double	→ ↙
8)	long	java.lang.Long	→ ↙

We can create instance of wrapper class also we can invoke method.

```
Integer number = new Integer(10);
int value = number.intValue();
```

* overview of String

- String is not a primitive/built-in type in Java
- String is a final class declared in java.lang package
- Since String is class, it is considered as non-primitive type / Reference Type
- We can create instance of String using new operator as well as without new operator as

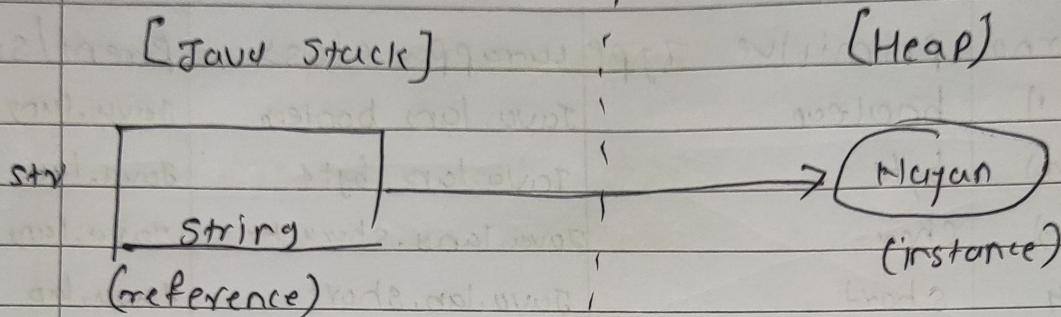
Memory Representation:-

Example - 1

`String str = new String("Nayan");`

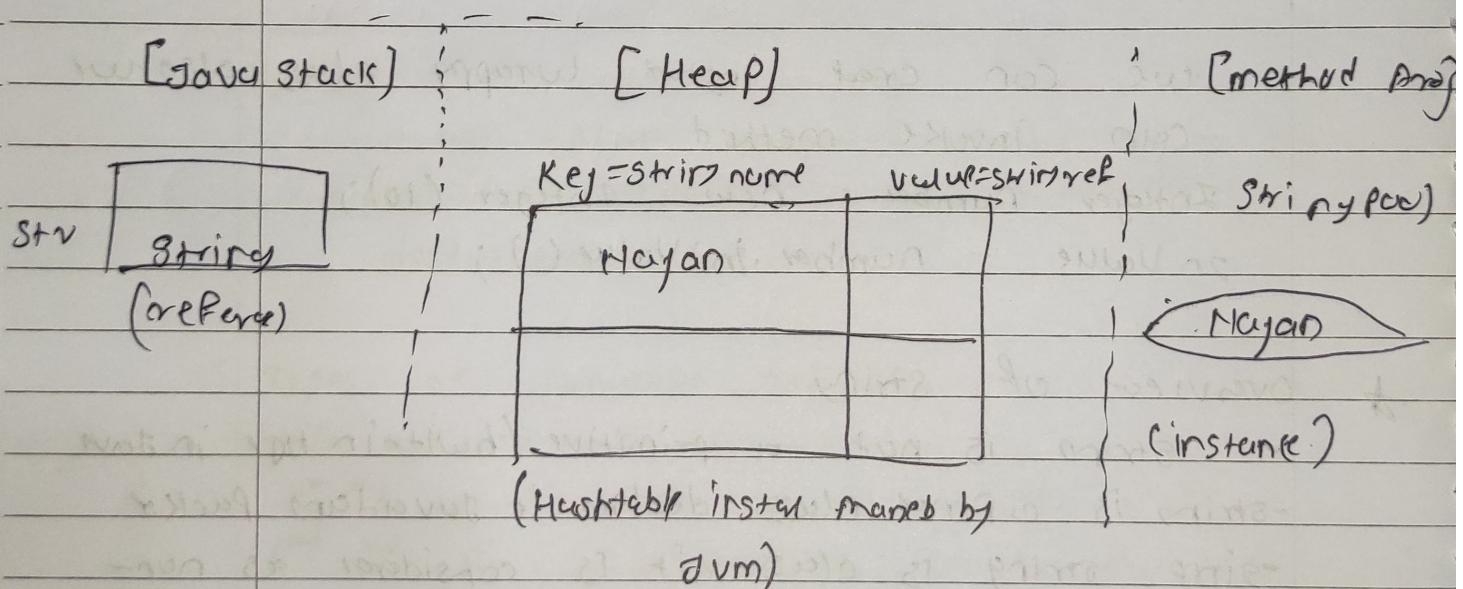
- `str` is called as object reference

- `new String("Nayan")` is called as instance

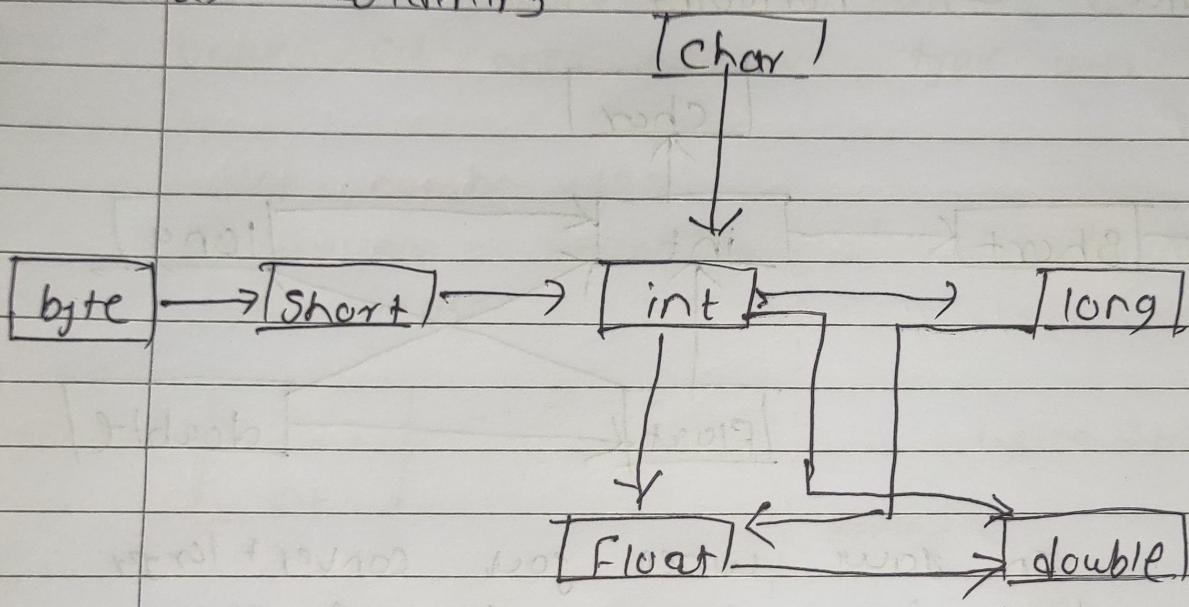


Example - 2

`String str = "Nayan";`



The widening conversion process of converting value of variable of narrower type into wider type is called as widening.

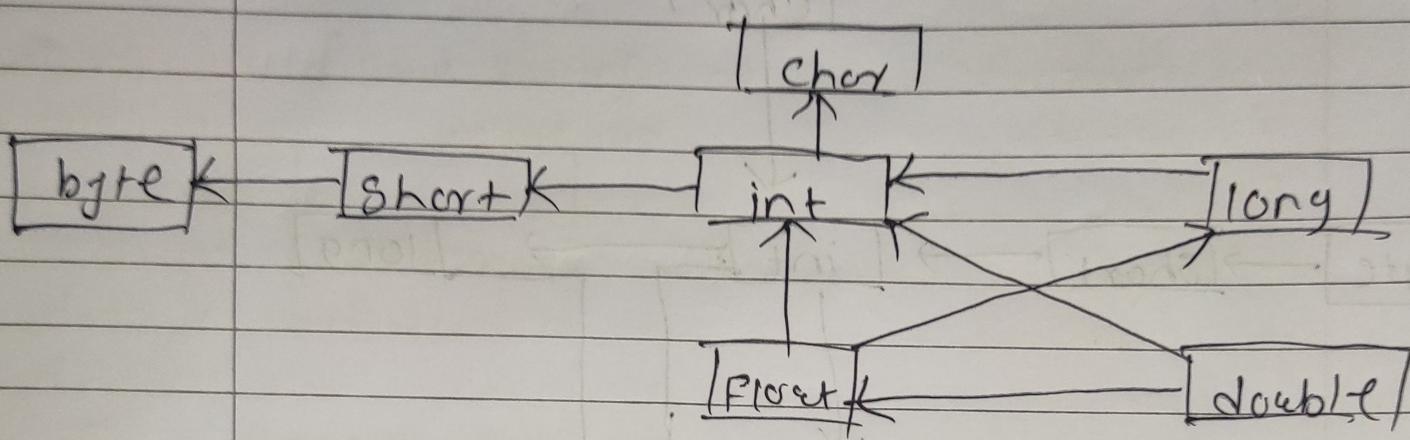


In Java when you convert a smaller data type into larger data type without losing any information.

This happens automatically because larger type can easily hold all values of smaller type
eg. int to long
float to double

* Narrowing Conversion

= process of converting value of variable of wider type into narrow type is called as narrowing



In Java when you convert larger data type into smaller data type, since smaller type has less of space, you might lose some information during the conversion. The process doesn't happen automatically.

double to float

long to int

Boxing & unboxing

1) Boxing

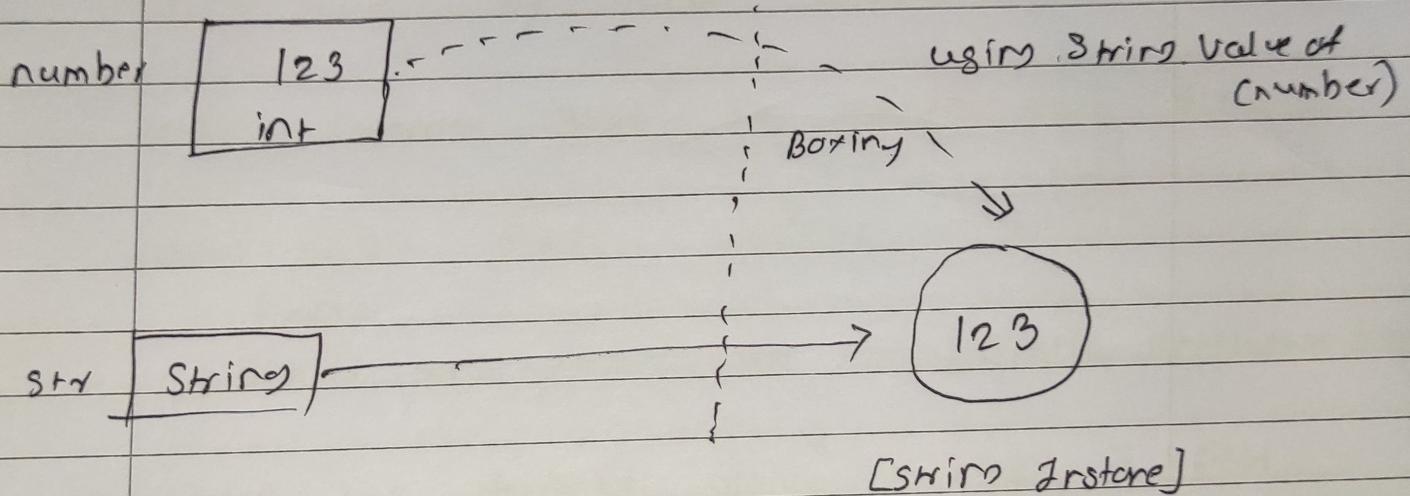
using `toString()` method of wrapper class or `String.valueOf()` method, we can convert value of any primitive type into String

```
int number = 123;
```

```
String str = String.valueOf(number); //Boxing
```

[Java stack]

[Heap]



2) Unboxing

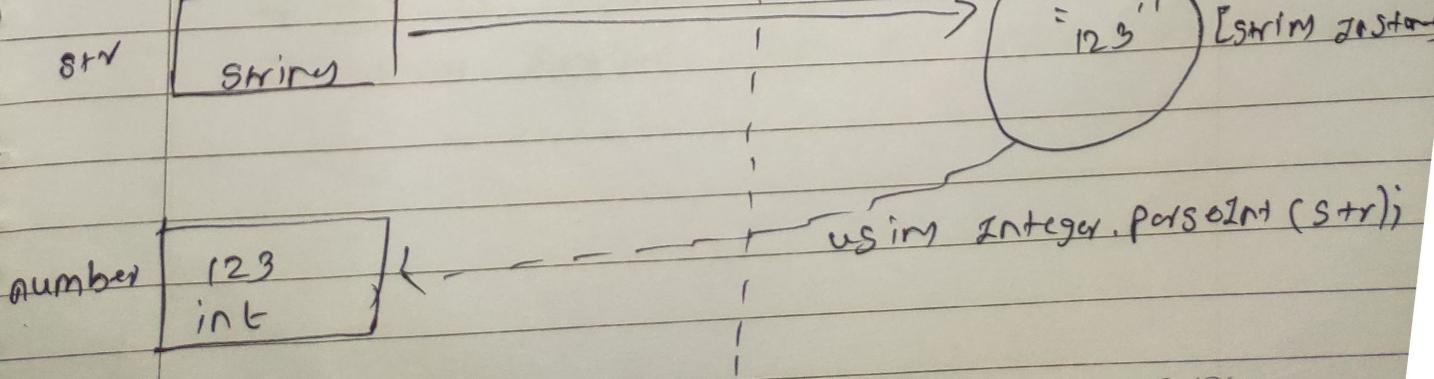
using `parseXXX()` method of wrapper class, we can convert stack of string into primitive value

```
String str = "123"
```

```
int number = Integer.parseInt(str); //unboxing
```

[Java stack]

[Heap]



command line argument

Date : / /

Java command line argument is an argument that passed at the time of running the Java program.

The passed argument can receive Java program and can be used as an input.

Syntax (format) for the argument :-

System.out.println("1st argument is - " + args[0])