

Type Casting.

Type casting is a process of storing the value of one datatype into another datatype.

There are two types of type casting:

- ① Implicit type casting
- ② Explicit type casting.

① Implicit Type casting.

Converting or storing a value of smaller data type into the variable of bigger data type is called as Implicit type casting.

Program:

```
class TypeCastingDemo
{
    public static void main(String[] args)
    {
        int salary = 365000;
        double dupSalary = salary;

        System.out.println("Salary = " + salary);
        System.out.println("dupSalary = " + dupSalary);
    }
}
```

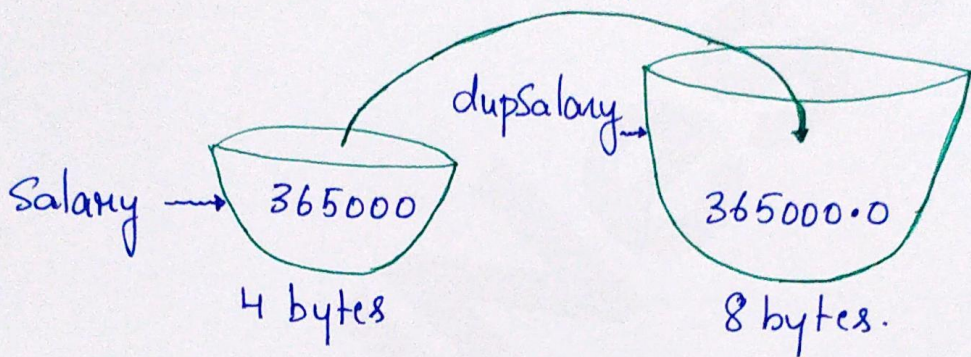


Output:

Salary = 365000
dupSalary = 365000.0

Memory Map:

int Salary = 365000
double dupSalary = Salary.



Note: Here we are storing the value of int type variable inside the double type variable. Hence the value is getting stored into double type variable, Extra .0 will be added as a fractional part.



⑤ Explicit Type Casting:

Converting or storing a value of bigger data type into the variable of smaller data type. is called as Explicit Type Casting.

Program:

```
class TypeCastingDemo
{
    public static void main (String [] args)
    {
        double pi = 3.14159;
        int dupPi = pi; ~~~~~> ERROR.
        System.out.println ("Pi = " + pi);
        System.out.println ("Duplicate pi = " + dupPi);
    }
}
```

Note: Here we are trying to store the value of double inside the variable of int directly without performing Explicit type casting.



Program using Explicit type Casting.

```
class TypeCastingDemo
{
    public static void main (String [] args)
    {
        double pi = 3.14159;
        int dupPi = (int)pi;

        System.out.println ("Pi = " + pi);
        System.out.println ("Duplicate Pi = " + dupPi);
    }
}
```

Output :

```
Pi = 3.14159
Duplicate pi = 3.
```

Note: Hence int datatype doesn't store decimal values, fractional part is not stored in int variable while explicit conversion.

