Type Casting
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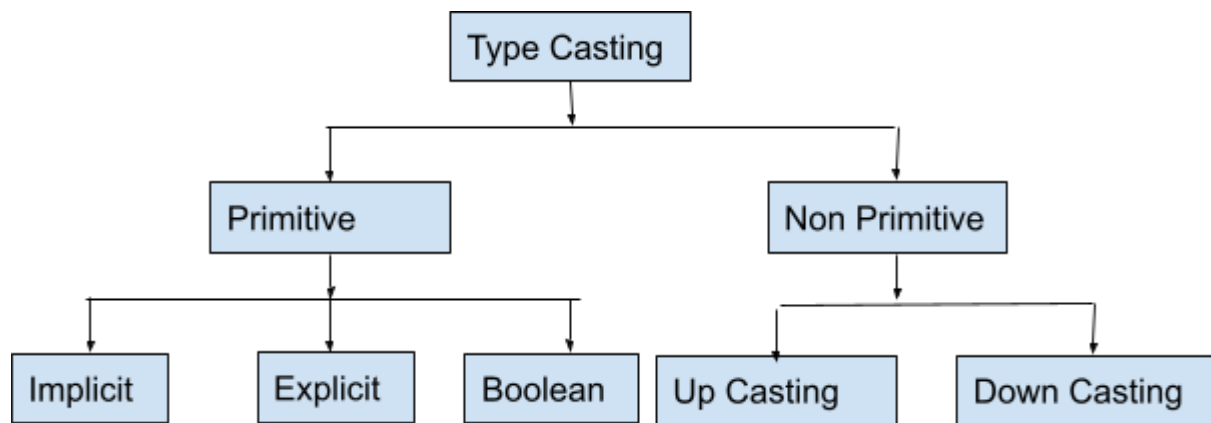
In casting programmer can convert one type of information into another type of information, there are two basic types of casting

1. **Primitive Casting**
   - In primitive casting one datatype of information is converted into another data type of information
   - It is related to variables which are further divided into three types
   - Implicit, Explicit and Boolean type.

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a. **Implicit Casting / widening casting**

   - In Implicit casting, lower data type of information is converted into higher data type of information.
     byte -> **short** -> **char** -> **int** -> **long** -> **float** -> **double**
   - Syntax

     int a = 10;   // integer type of data type
     double x = a;   // converted into float type of data type

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b. **Explicit Casting / narrowing casting**

   - In Explicit casting, higher data type of information is converted into lower data type of information.
     double -> **float** -> **long** -> **int** -> **char** -> **short** -> **byte**
   - Syntax
     double d = 10.3;   // double type of data type
     int y = (int)d;   // converted into integer type of data type

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c. **Boolean Casting** >> it is not supported in java

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E.x

```java
public class Variables
{
        static int a = 15;
        static double d = a;            // implicit casting

        static double b = 25.21;
        static int i = (int)b;          // explicit casting

        public static void main(String[] args)
        {
                System.out.println("Before casting" +"  "+ a);
                System.out.println("After casting" +"  "+ d);

                System.out.println("Before casting" +"  "+ b);
                System.out.println("After casting" +"  "+ i);
        }
}
```

Output >   Before casting 15
                After casting 15.0
                Before casting 25.21
                After casting 25