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Java Type Casting

Type casting is when you assign a value of one primitive data type to another type.

In Java, there are two types of casting:

- Widening Casting (automatically) converting a smaller type to a larger type size byte -> short -> char -> int -> long -> float -> double
- Narrowing Casting (manually) converting a larger type to a smaller size type double -> float -> long -> int -> char -> short -> byte

Widening Casting

Widening casting is done automatically when passing a smaller size type to a larger size type:

Example

```
public class Main {
 public static void main(String[] args) {
```

```
int myInt = 9;
  double myDouble = myInt; // Automatic casting: int to double

    System.out.println(myInt); // Outputs 9
    System.out.println(myDouble); // Outputs 9.0
  }
}
```

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Narrowing Casting

Narrowing casting must be done manually by placing the type in parentheses in front of the value:

Example

```
public class Main {
  public static void main(String[] args) {
    double myDouble = 9.78d;
    int myInt = (int) myDouble; // Manual casting: double to int

    System.out.println(myDouble); // Outputs 9.78
    System.out.println(myInt); // Outputs 9
  }
}
```

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