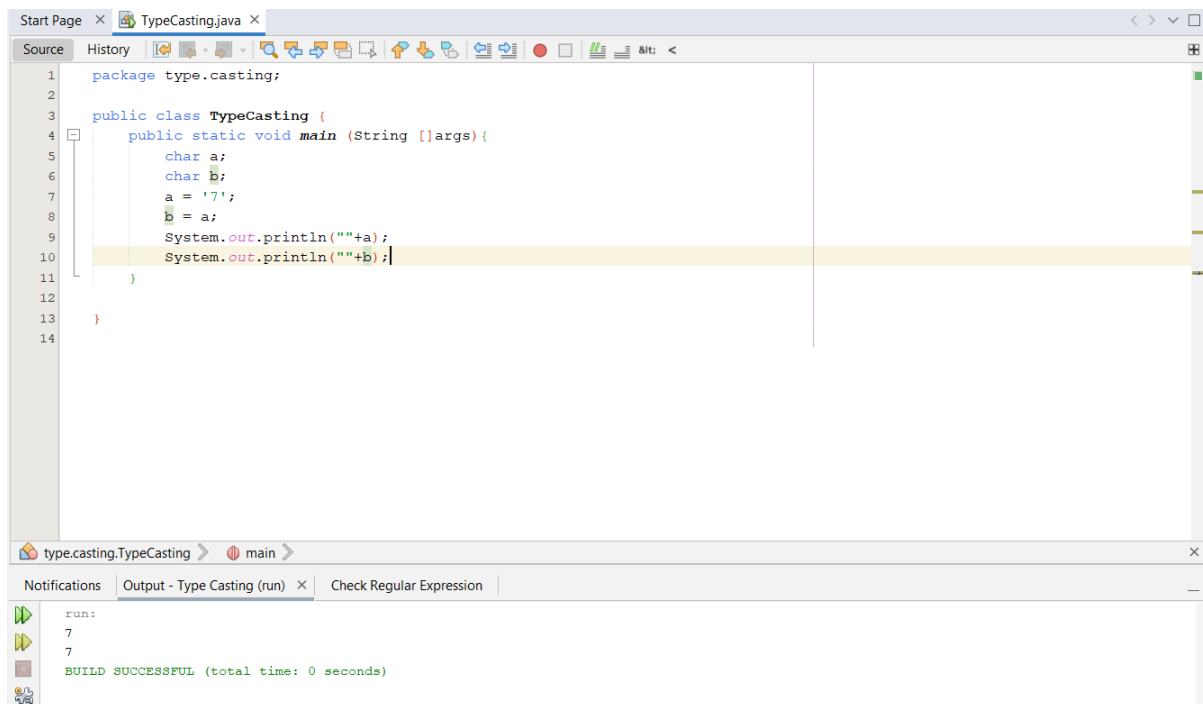


# Assignment on Typesetting

**Submitted by: Akash Sharad Badgajar**

# 1. char to char

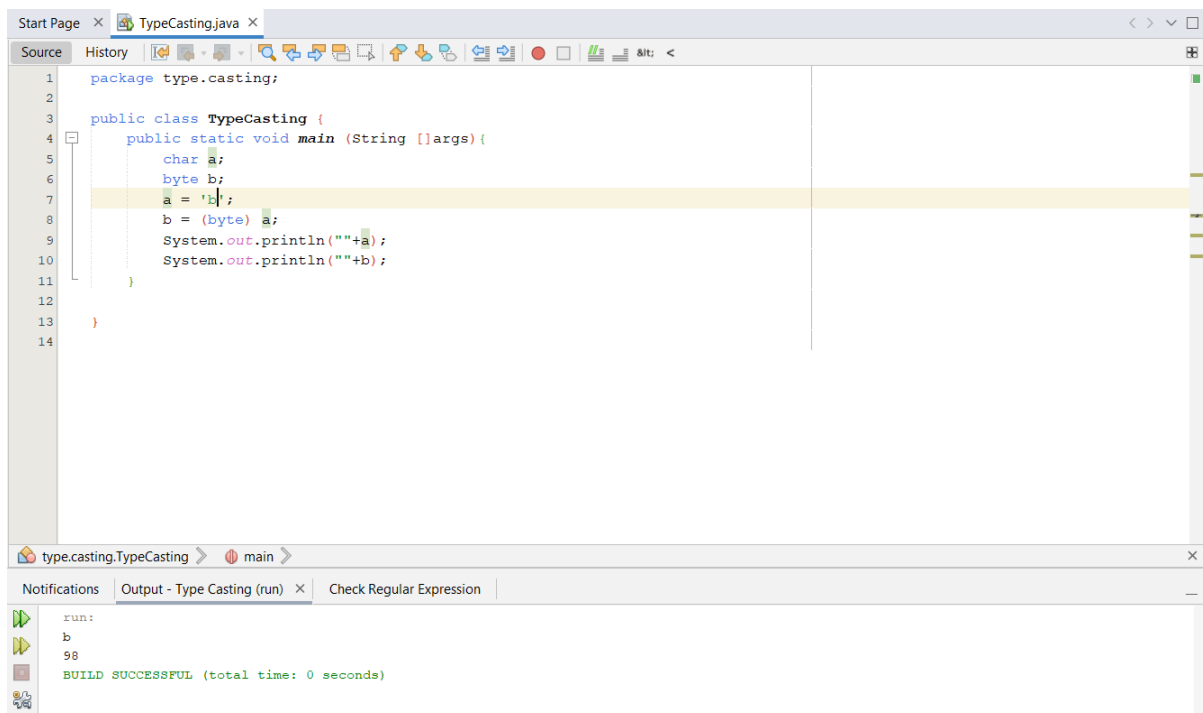


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         char a;
6         char b;
7         a = '7';
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
7  
7  
BUILD SUCCESSFUL (total time: 0 seconds)

**Typecasting not required**

# 2. char to byte



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         char a;
6         byte b;
7         a = 'b';
8         b = (byte) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
b  
98  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

### 3. char to short

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         char a;
6         short b;
7         a = 'b';
8         b = (short) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

type.casting.TypeCasting > main

Notifications Output - Type Casting (run) x Check Regular Expression

run:  
b  
98  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

### 4. char to int

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         char a;
6         int b;
7         a = 'b';
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

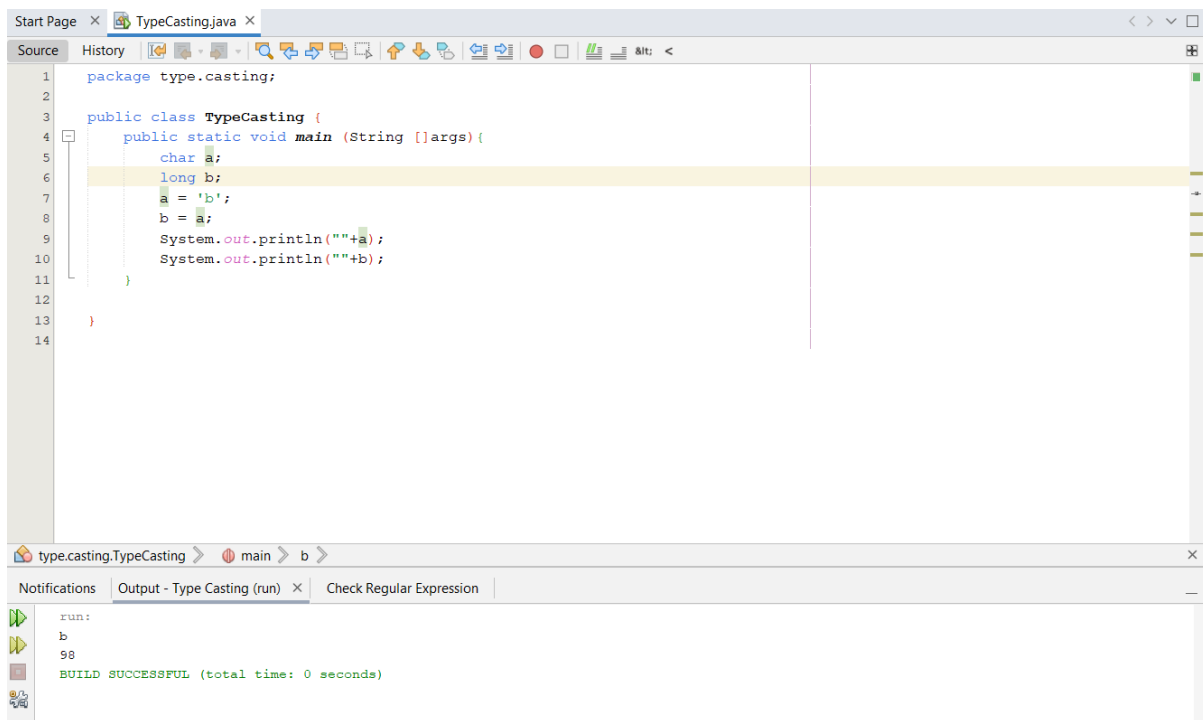
type.casting.TypeCasting > main > b

Notifications Output - Type Casting (run) x Check Regular Expression

run:  
b  
98.0  
BUILD SUCCESSFUL (total time: 0 seconds)

**Implicit typecasting required**

## 5. char to long



The screenshot shows an IDE window titled 'TypeCasting.java'. The source code is as follows:

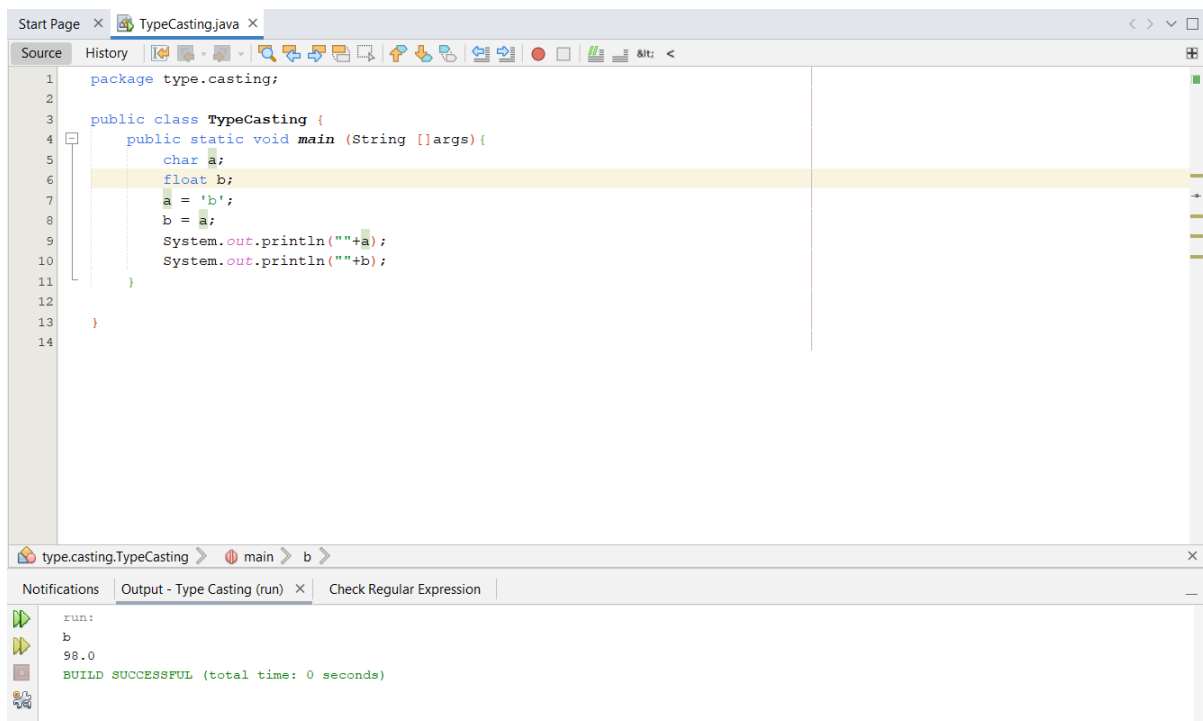
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         char a;
6         long b;
7         a = 'b';
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The output window shows the following results:

```
run:
b
98
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 6. char to float



The screenshot shows an IDE window titled 'TypeCasting.java'. The source code is as follows:

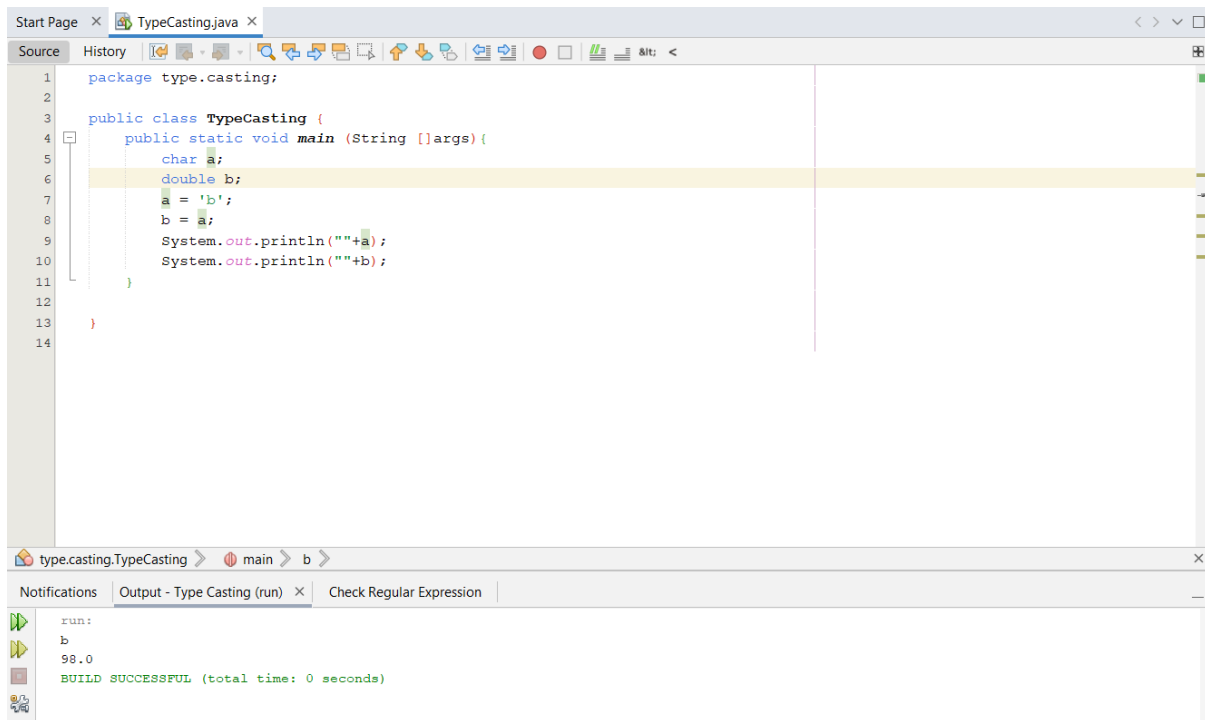
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         char a;
6         float b;
7         a = 'b';
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The output window shows the following results:

```
run:
b
98.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 7. char to double



The screenshot shows an IDE window titled 'TypeCasting.java'. The code is as follows:

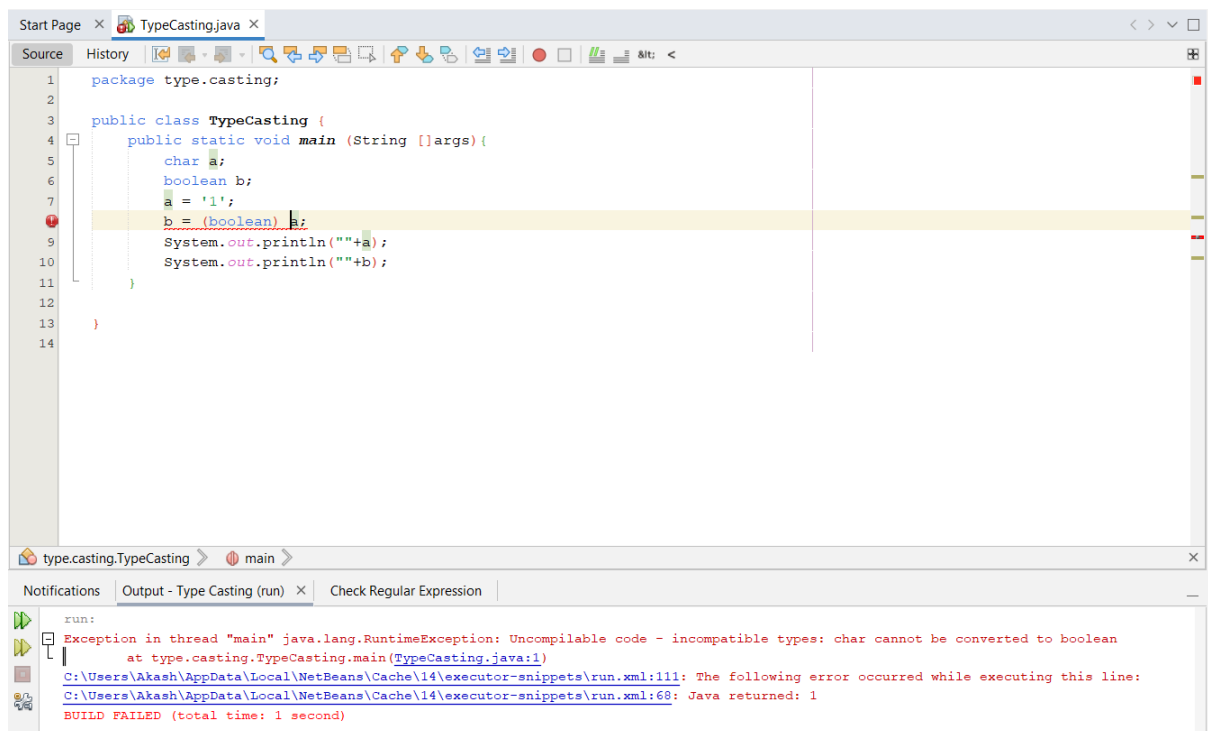
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         char a;
6         double b;
7         a = 'b';
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The output window at the bottom shows the following text:

```
run:
b
98.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 8. char to Boolean



The screenshot shows the same IDE window with the following code:

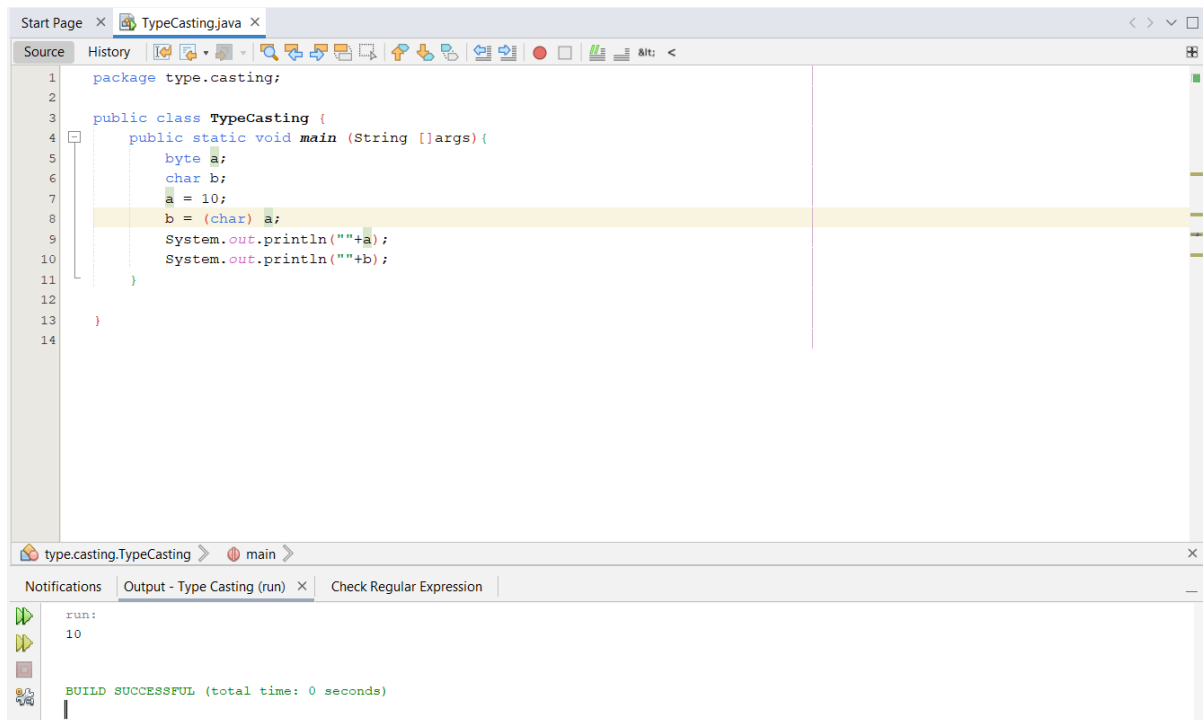
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         char a;
6         boolean b;
7         a = '1';
8         b = (boolean) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The output window shows a runtime exception:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: char cannot be converted to boolean
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 1 second)
```

**Typecasting cannot be done**

## 9. byte to char



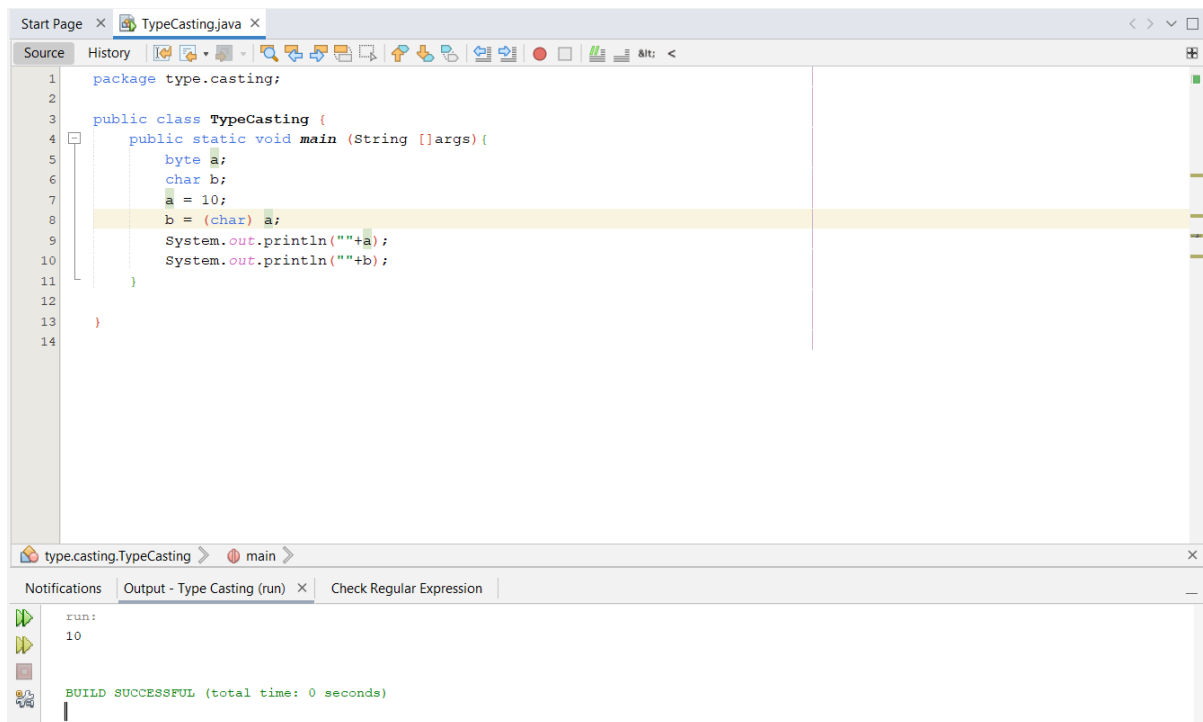
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         byte a;
6         char b;
7         a = 10;
8         b = (char) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run: 10

BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting Required**

## 10. byte to byte



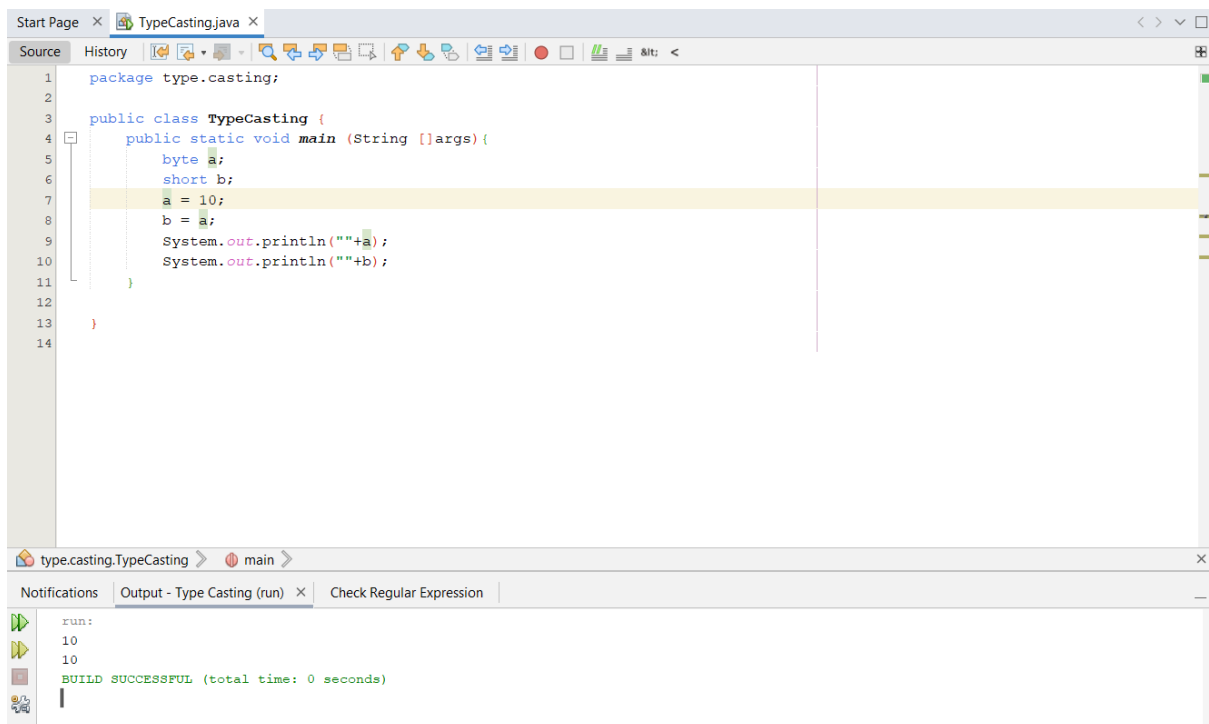
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         byte a;
6         char b;
7         a = 10;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run: 10

BUILD SUCCESSFUL (total time: 0 seconds)

**Typecasting not required**

## 11. byte to short



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

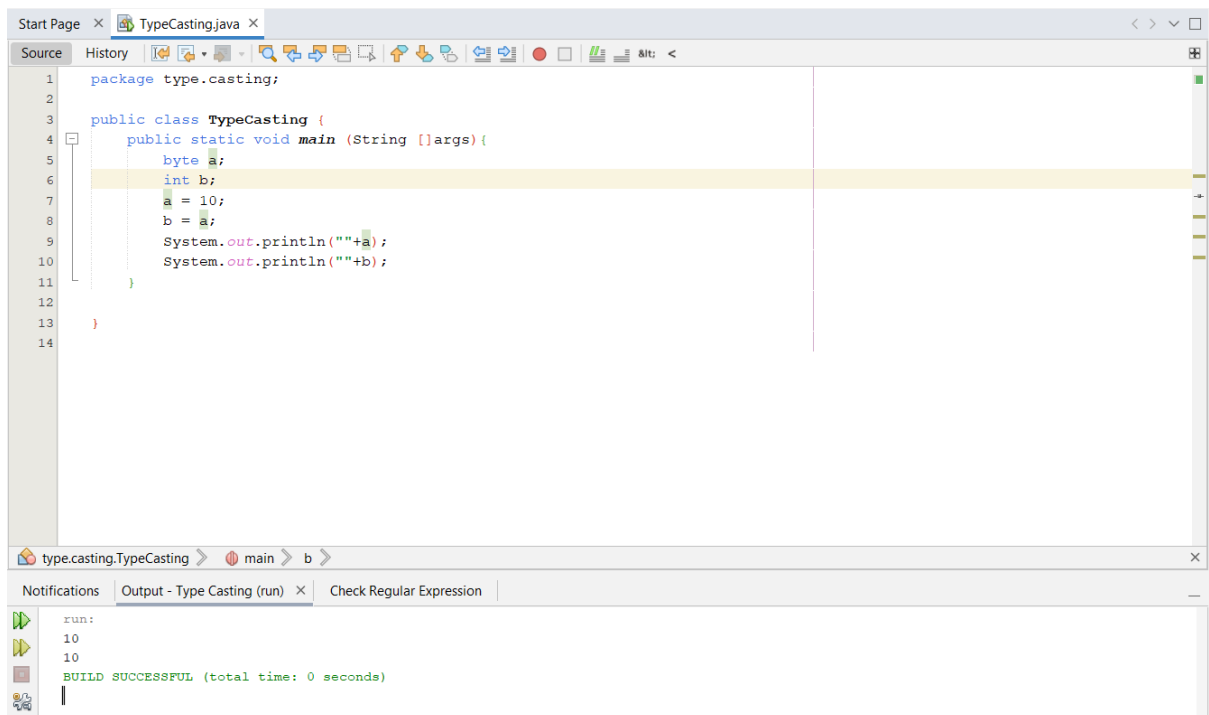
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         byte a;
6         short b;
7         a = 10;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's run console at the bottom shows the output of the program:

```
run:
10
10
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 12. byte to int



The screenshot shows the same IDE window with the same file `TypeCasting.java`. The code is modified to cast a byte to an int:

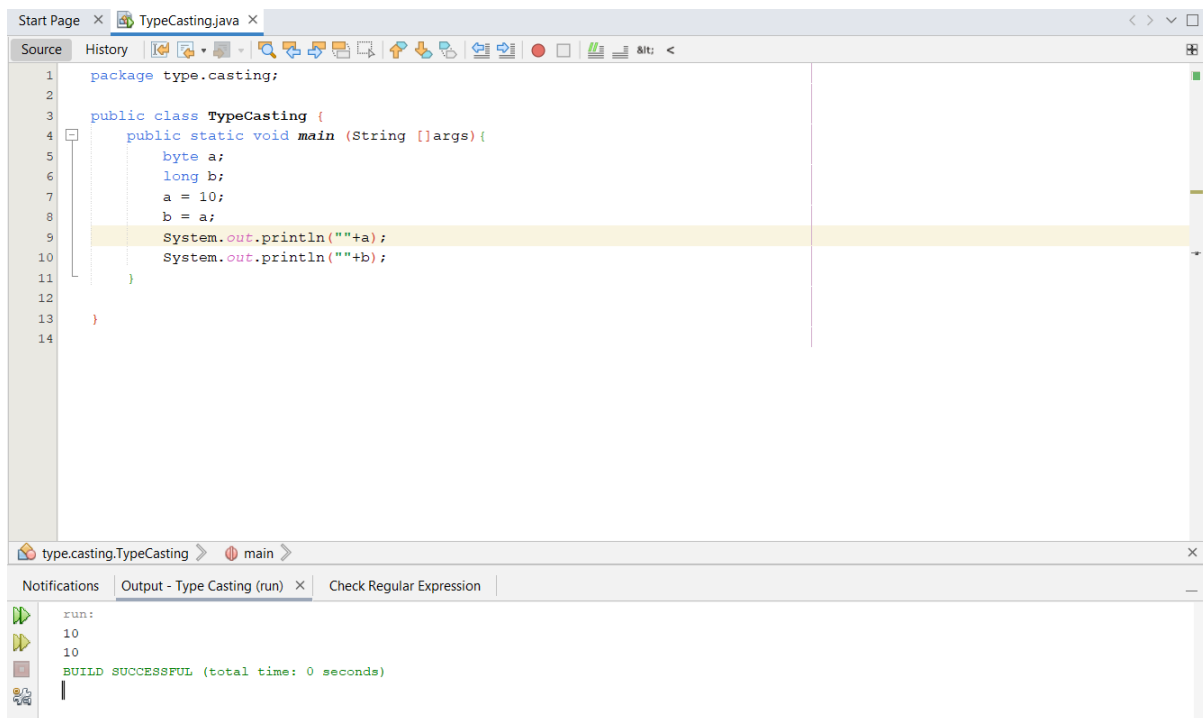
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         byte a;
6         int b;
7         a = 10;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's run console at the bottom shows the output of the program:

```
run:
10
10
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 13. byte to long



The screenshot shows an IDE window titled 'TypeCasting.java'. The source code is as follows:

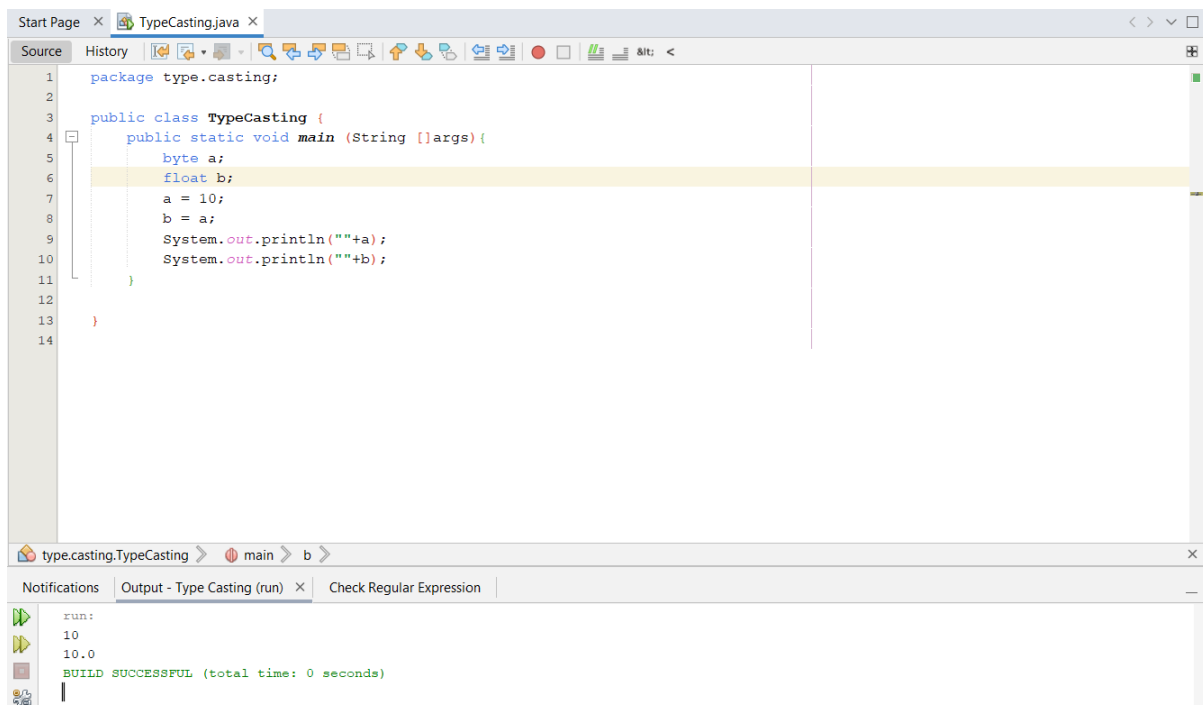
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         byte a;
6         long b;
7         a = 10;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following results:

```
run:
10
10
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 14. byte to float



The screenshot shows the same IDE window with the following source code:

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         byte a;
6         float b;
7         a = 10;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

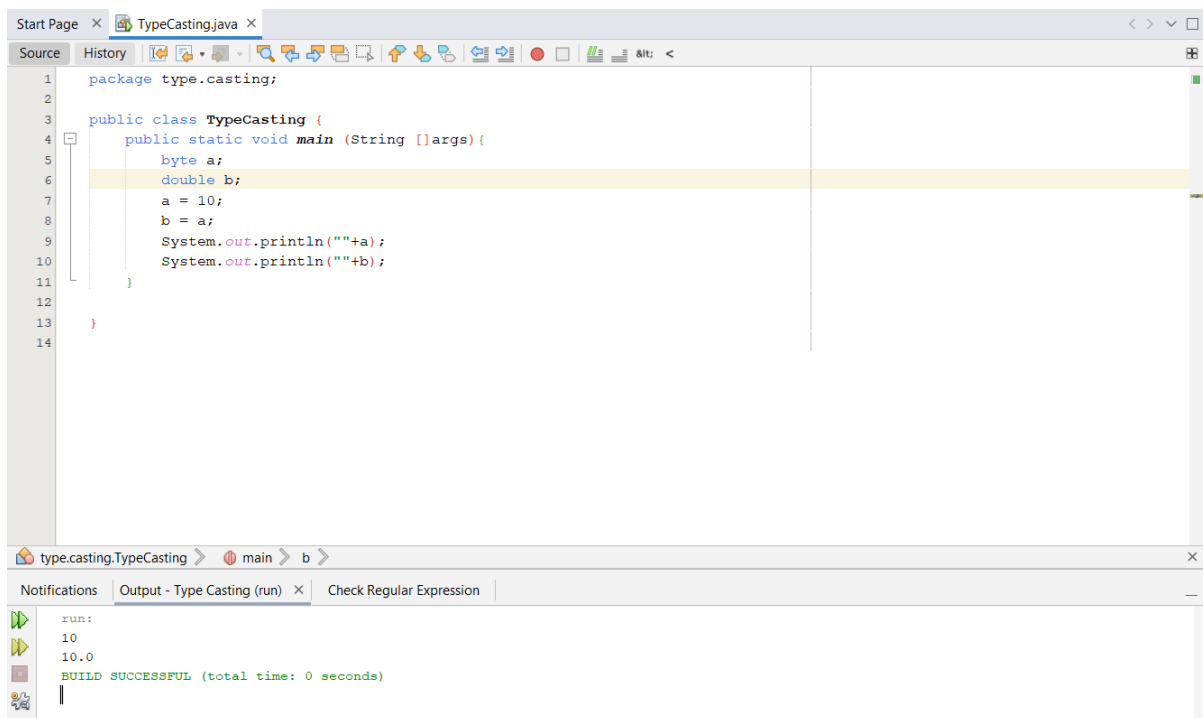
The IDE's output window at the bottom shows the following results:

```
run:
10
10.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**



## 15. byte to double



The screenshot shows an IDE with a file named `TypeCasting.java`. The code is as follows:

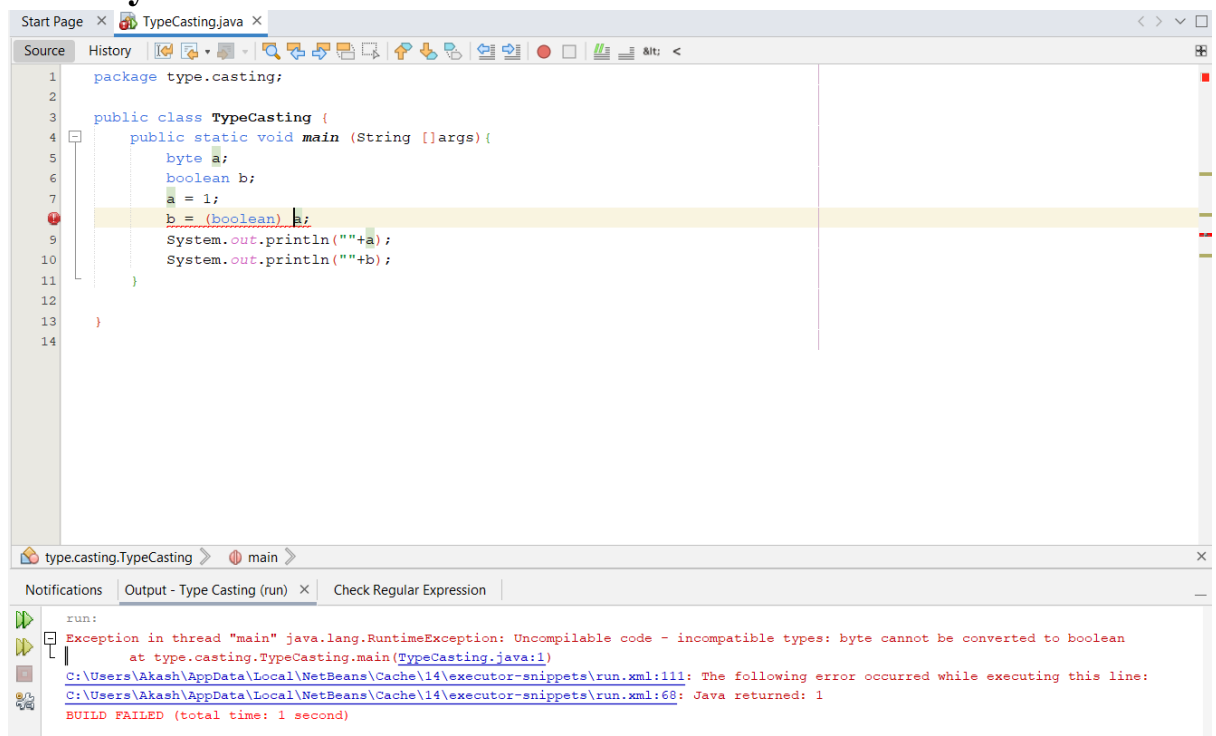
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         byte a;
6         double b;
7         a = 10;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The output window shows the following results:

```
run:
10
10.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 16. byte to Boolean



The screenshot shows the same IDE with the `TypeCasting.java` file. The code is as follows:

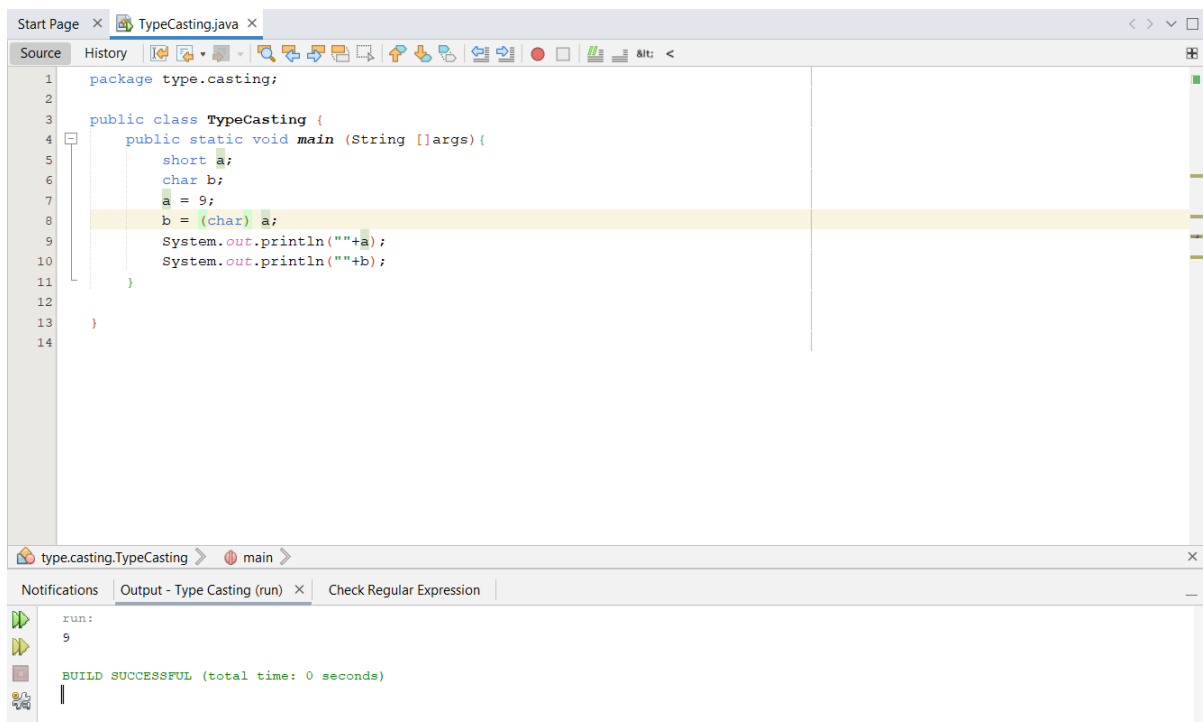
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         byte a;
6         boolean b;
7         a = 1;
8         b = (boolean) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The output window shows the following error:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: byte cannot be converted to boolean
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 1 second)
```

**Typecasting cannot be done**

## 17. short to char



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

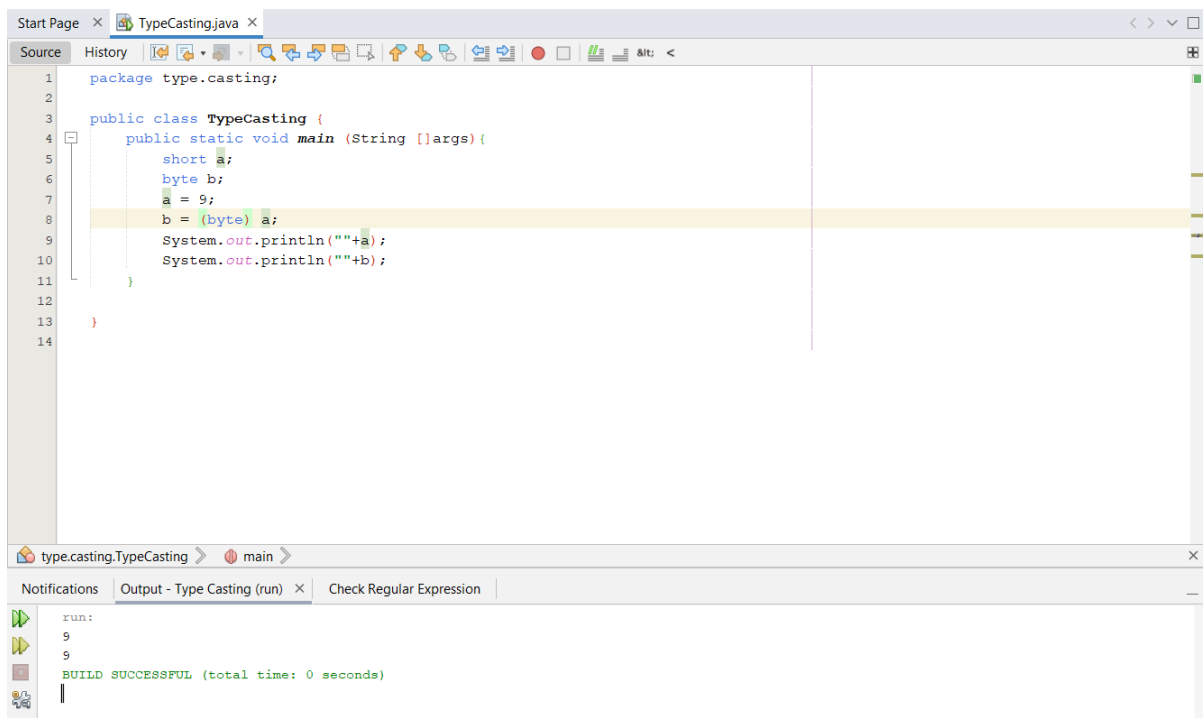
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         short a;
6         char b;
7         a = 9;
8         b = (char) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following text:

```
run:
9
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 18. short to byte



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

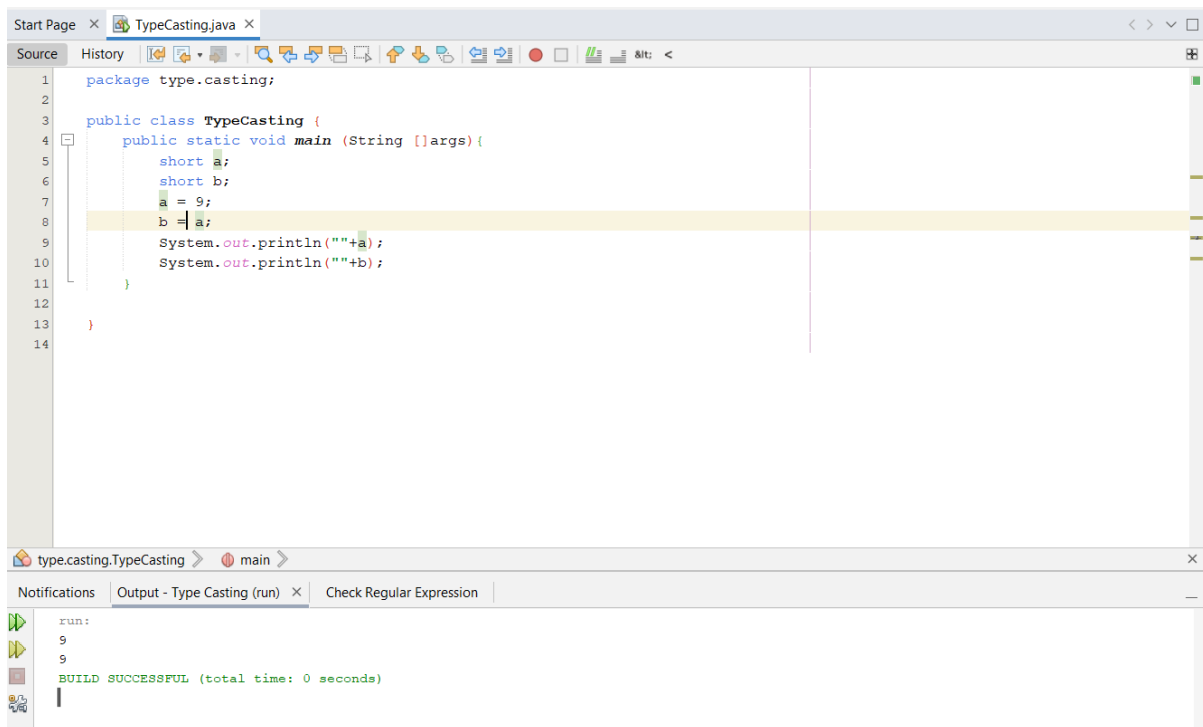
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         short a;
6         byte b;
7         a = 9;
8         b = (byte) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following text:

```
run:
9
9
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 19. short to short

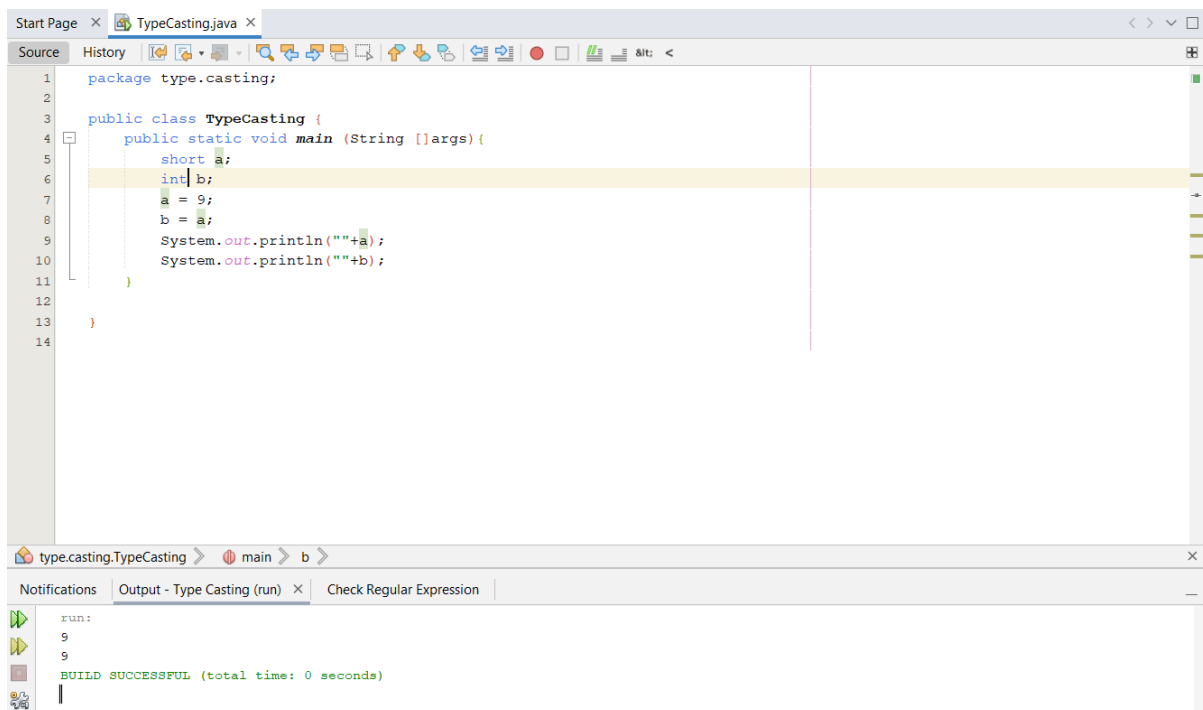


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         short a;
6         short b;
7         a = 9;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run: 9 9  
BUILD SUCCESSFUL (total time: 0 seconds)

**Typecasting not required**

## 20. short to int

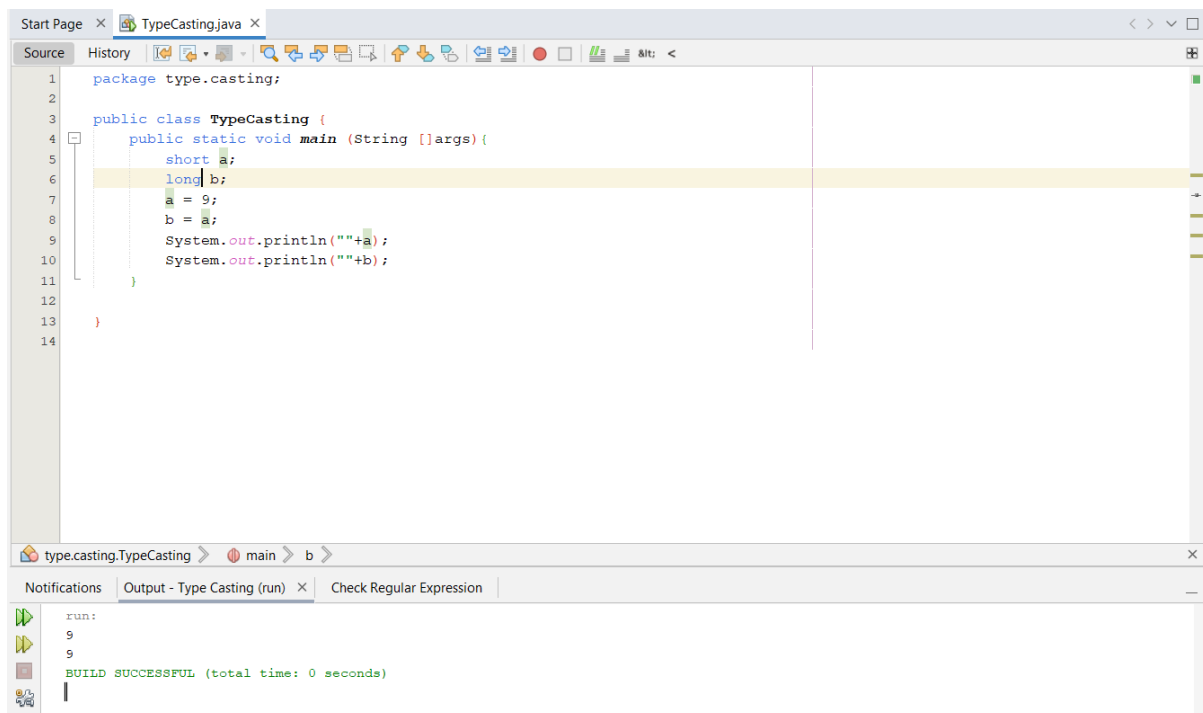


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         short a;
6         int b;
7         a = 9;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run: 9 9  
BUILD SUCCESSFUL (total time: 0 seconds)

**Implicit typecasting required**

## 21. short to long



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         short a;
6         long b;
7         a = 9;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

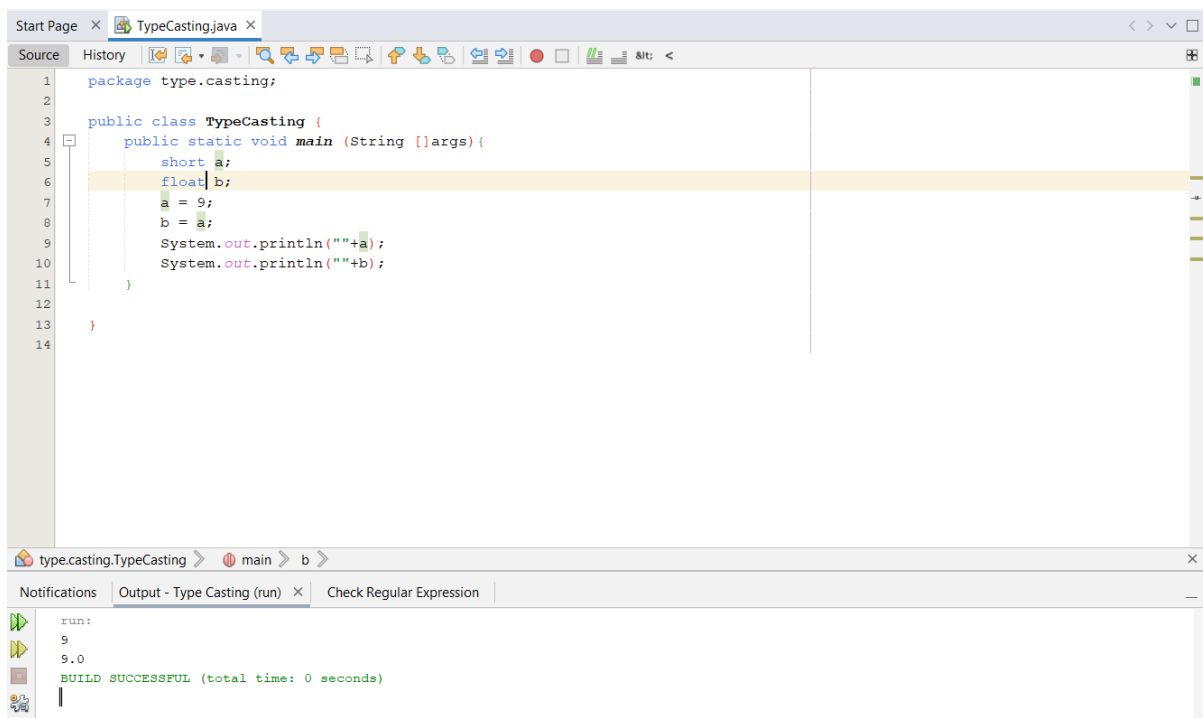
type.casting.TypeCasting > main > b

Notifications Output - Type Casting (run) x Check Regular Expression

run:  
9  
9  
BUILD SUCCESSFUL (total time: 0 seconds)

**Implicit typecasting required**

## 22. short to float



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         short a;
6         float b;
7         a = 9;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

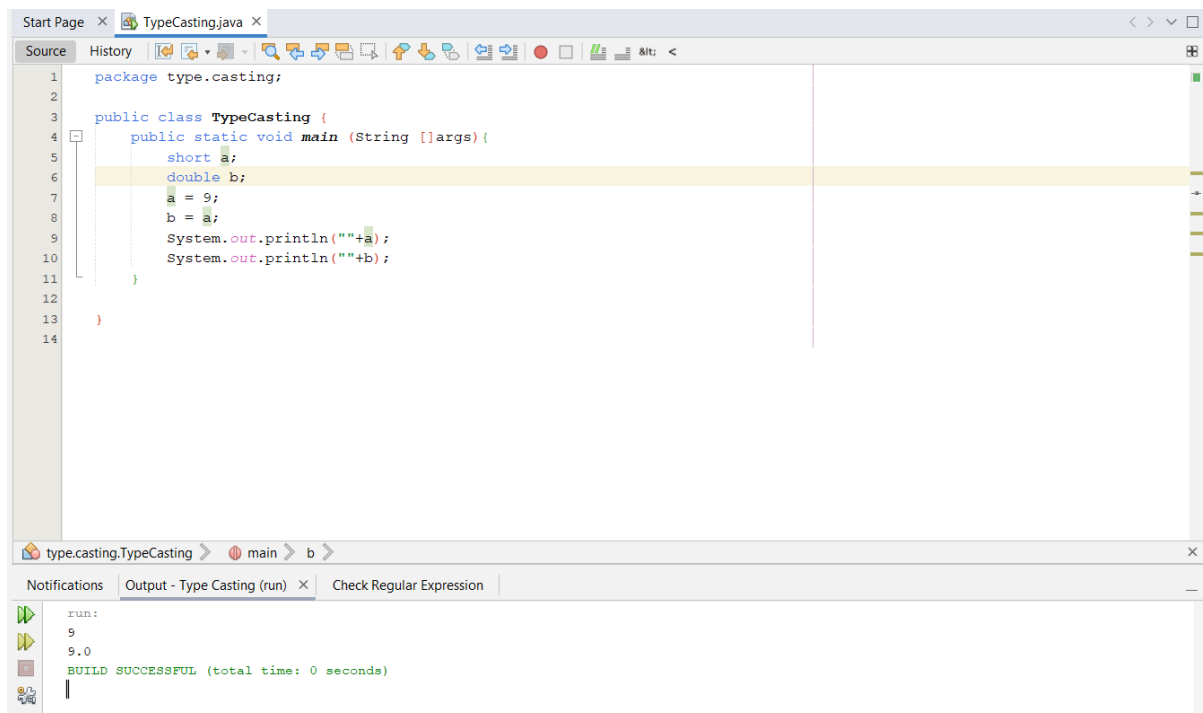
type.casting.TypeCasting > main > b

Notifications Output - Type Casting (run) x Check Regular Expression

run:  
9  
9.0  
BUILD SUCCESSFUL (total time: 0 seconds)

**Implicit typecasting required**

## 23. short to double



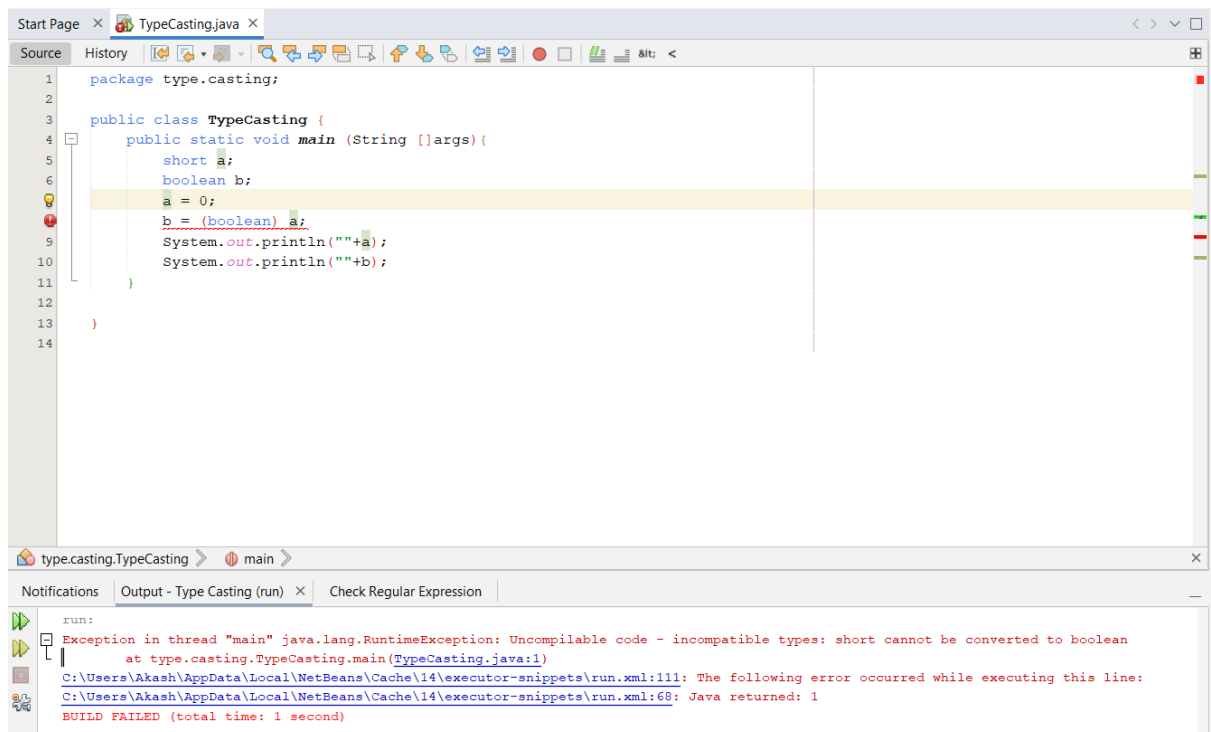
The screenshot shows an IDE window titled 'TypeCasting.java'. The code defines a class 'TypeCasting' with a 'main' method. Inside 'main', a 'short' variable 'a' is assigned the value 9, and a 'double' variable 'b' is assigned the value of 'a'. Both variables are printed to the console. The output window at the bottom shows the results: '9' and '9.0', followed by a 'BUILD SUCCESSFUL' message.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         short a;
6         double b;
7         a = 9;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
9  
9.0  
BUILD SUCCESSFUL (total time: 0 seconds)

**Implicit typecasting required**

## 24. short to boolean



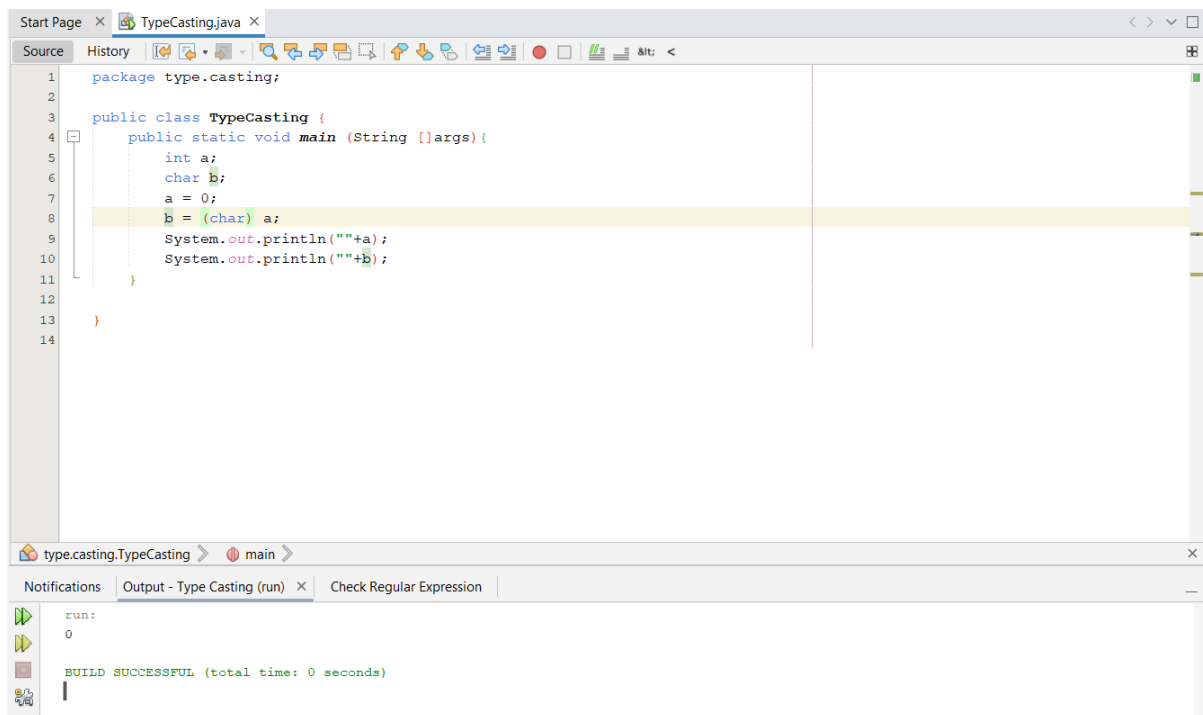
The screenshot shows the same IDE window with 'TypeCasting.java', but the code now attempts to cast the 'short' variable 'a' to a 'boolean' variable 'b'. This causes a compilation error, indicated by a red squiggly line under the cast. The output window shows a 'BUILD FAILED' message with a detailed exception: 'java.lang.RuntimeException: Uncompilable code - incompatible types: short cannot be converted to boolean'.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         short a;
6         boolean b;
7         a = 0;
8         b = (boolean) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: short cannot be converted to boolean  
at type.casting.TypeCasting.main(TypeCasting.java:1)  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1  
BUILD FAILED (total time: 1 second)

**Typecasting cannot be done**

## 25. int to char



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

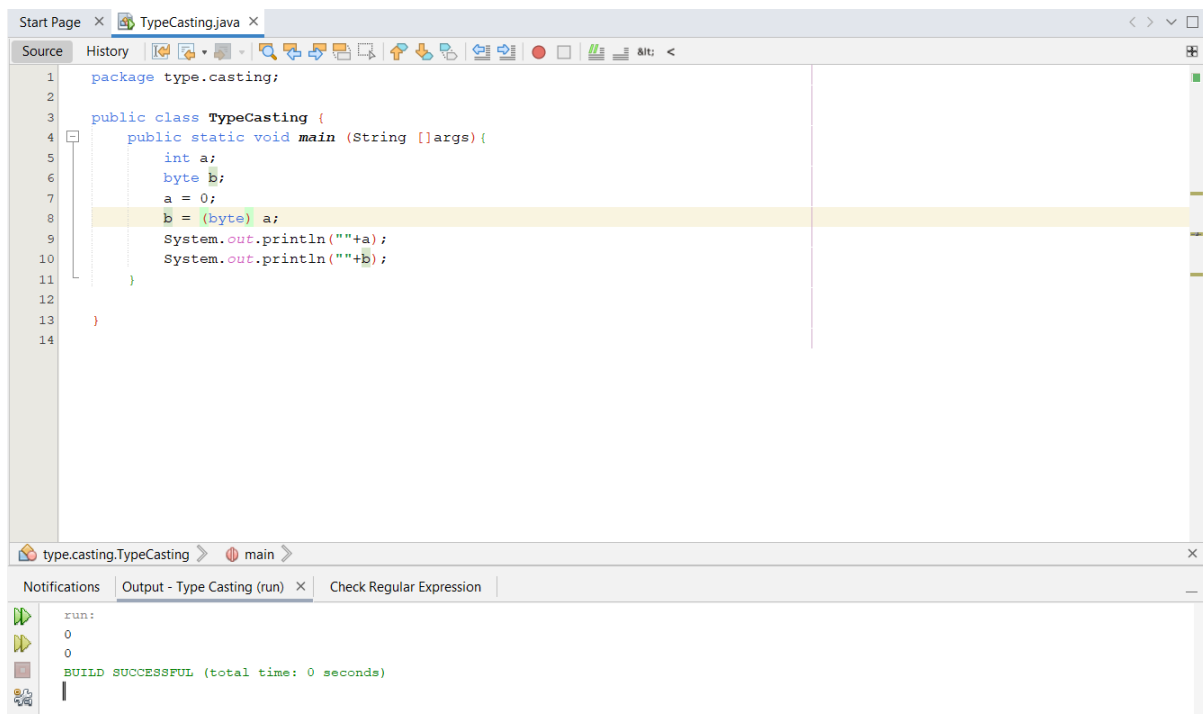
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         int a;
6         char b;
7         a = 0;
8         b = (char) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following text:

```
run:
0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 26. int to byte



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

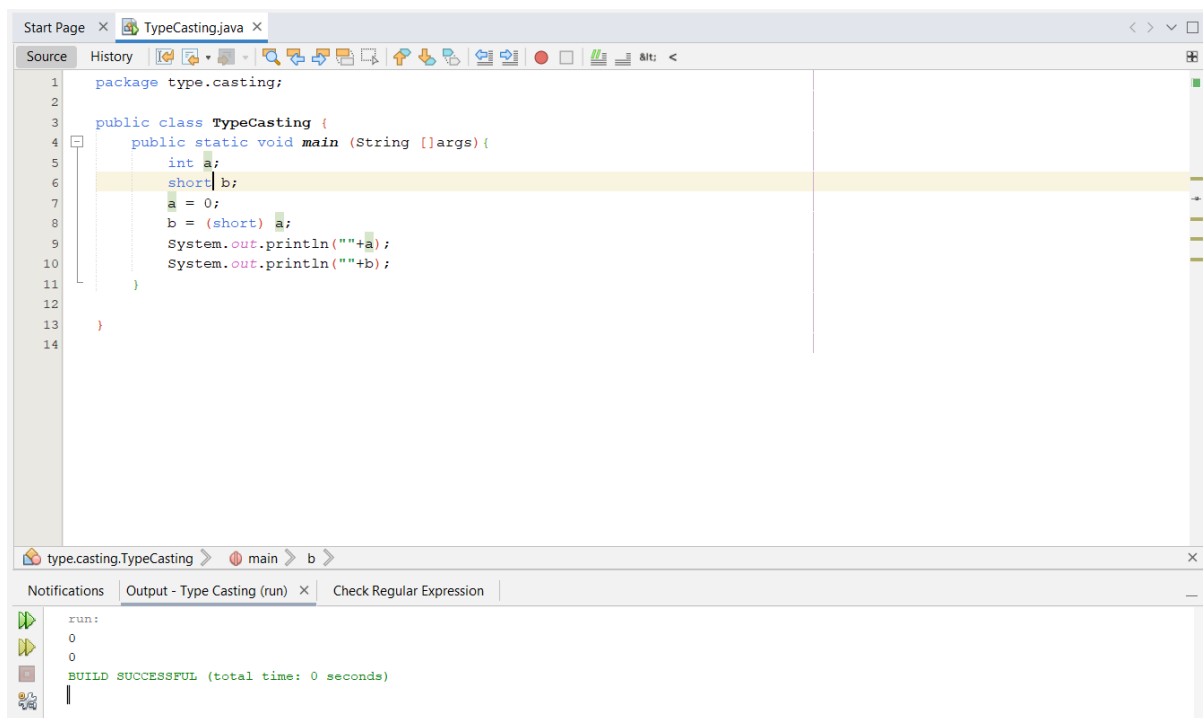
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         int a;
6         byte b;
7         a = 0;
8         b = (byte) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following text:

```
run:
0
0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 27. int to short



The screenshot shows an IDE window titled 'TypeCasting.java'. The code defines a package 'type.casting' and a class 'TypeCasting'. Inside the class, there is a static method 'main' that takes an array of strings as an argument. The code declares an 'int' variable 'a' and a 'short' variable 'b'. It initializes 'a' to 0 and then assigns 'a' to 'b' using an explicit cast: 'b = (short) a;'. Finally, it prints the values of 'a' and 'b' using 'System.out.println'. The output window at the bottom shows the output '0' for both 'a' and 'b', and a message 'BUILD SUCCESSFUL (total time: 0 seconds)'.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         int a;
6         short b;
7         a = 0;
8         b = (short) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

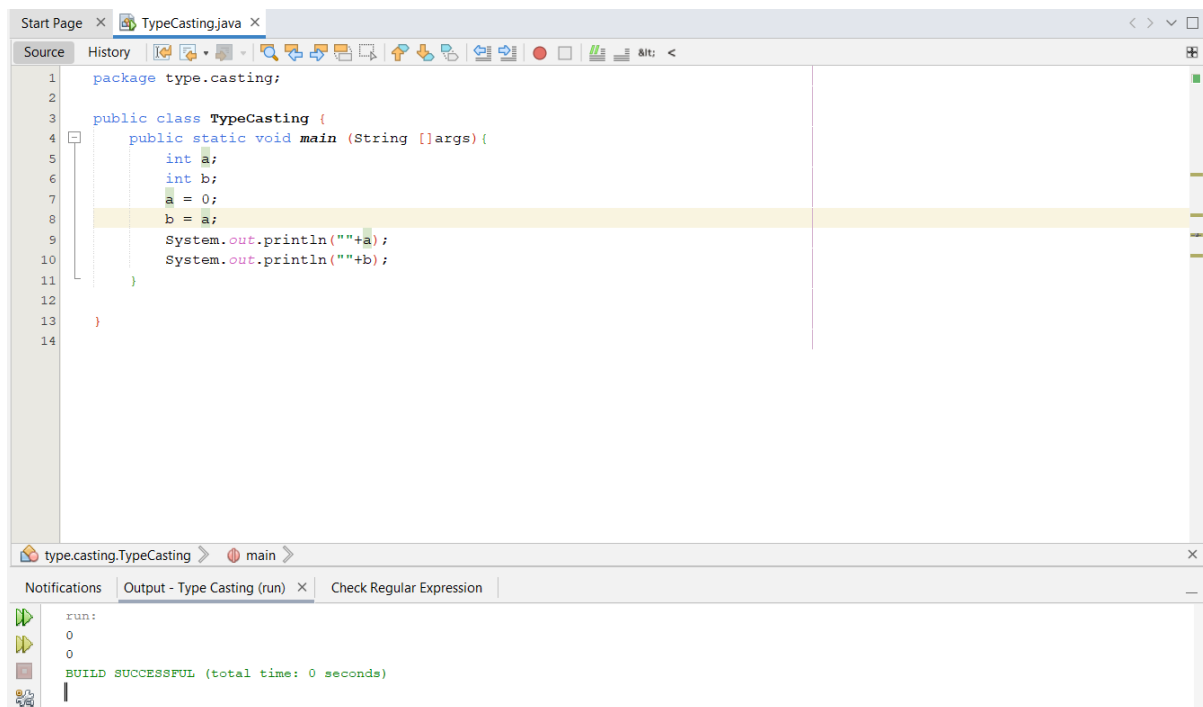
type.casting.TypeCasting > main > b

Notifications Output - Type Casting (run) X Check Regular Expression

run: 0 0  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 28. int to int



The screenshot shows an IDE window titled 'TypeCasting.java'. The code defines a package 'type.casting' and a class 'TypeCasting'. Inside the class, there is a static method 'main' that takes an array of strings as an argument. The code declares two 'int' variables, 'a' and 'b'. It initializes 'a' to 0 and then assigns 'a' to 'b' without any explicit cast: 'b = a;'. Finally, it prints the values of 'a' and 'b' using 'System.out.println'. The output window at the bottom shows the output '0' for both 'a' and 'b', and a message 'BUILD SUCCESSFUL (total time: 0 seconds)'.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         int a;
6         int b;
7         a = 0;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

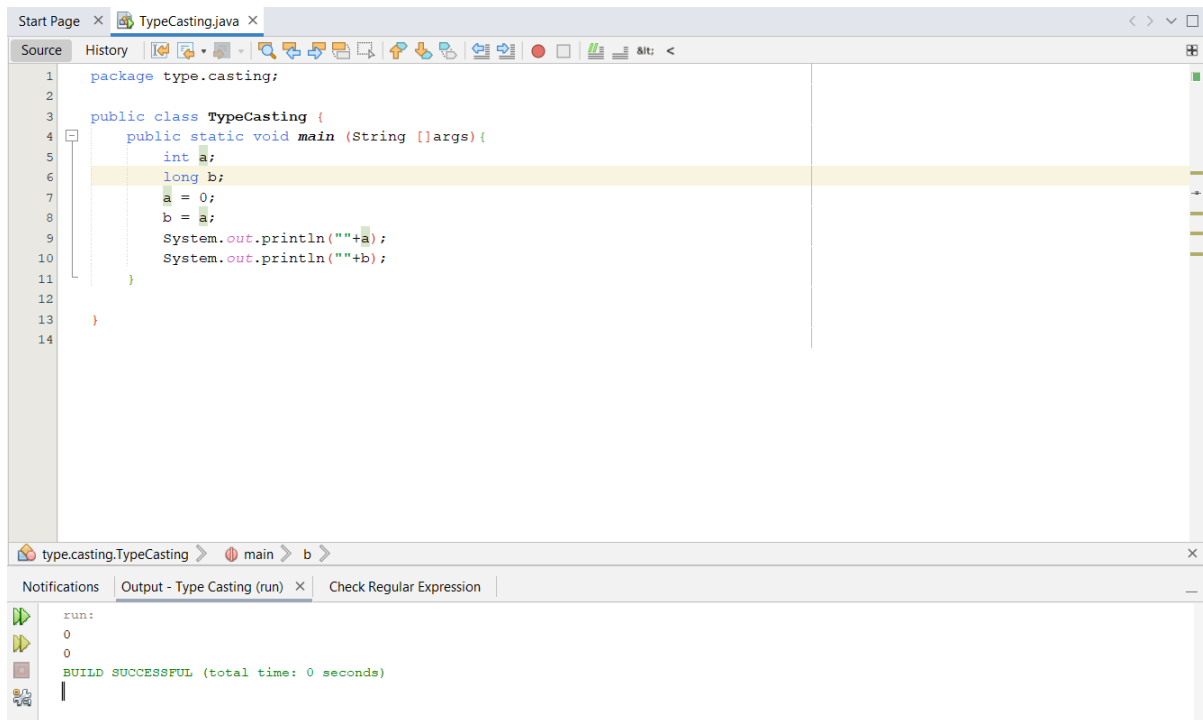
type.casting.TypeCasting > main

Notifications Output - Type Casting (run) X Check Regular Expression

run: 0 0  
BUILD SUCCESSFUL (total time: 0 seconds)

**Typecasting not required**

## 29. int to long



The screenshot shows an IDE window titled 'TypeCasting.java'. The code is as follows:

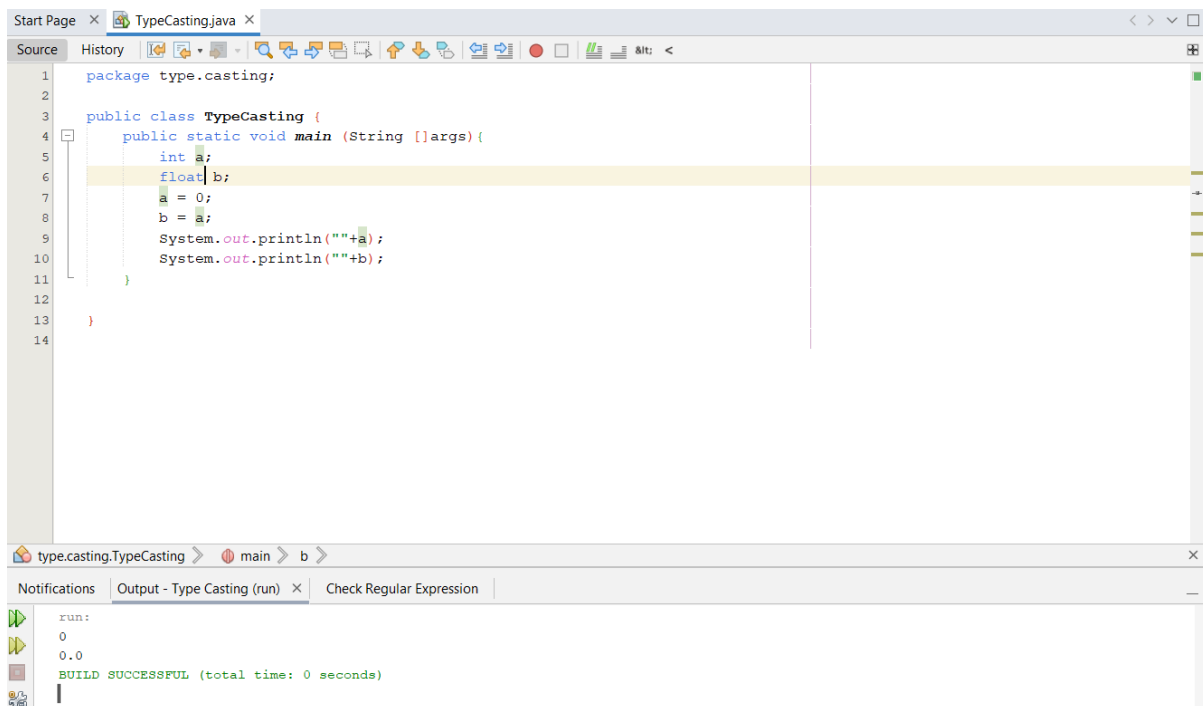
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         int a;
6         long b;
7         a = 0;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The output window at the bottom shows the following text:

```
run:
0
0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 30. int to float



The screenshot shows an IDE window titled 'TypeCasting.java'. The code is as follows:

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         int a;
6         float b;
7         a = 0;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

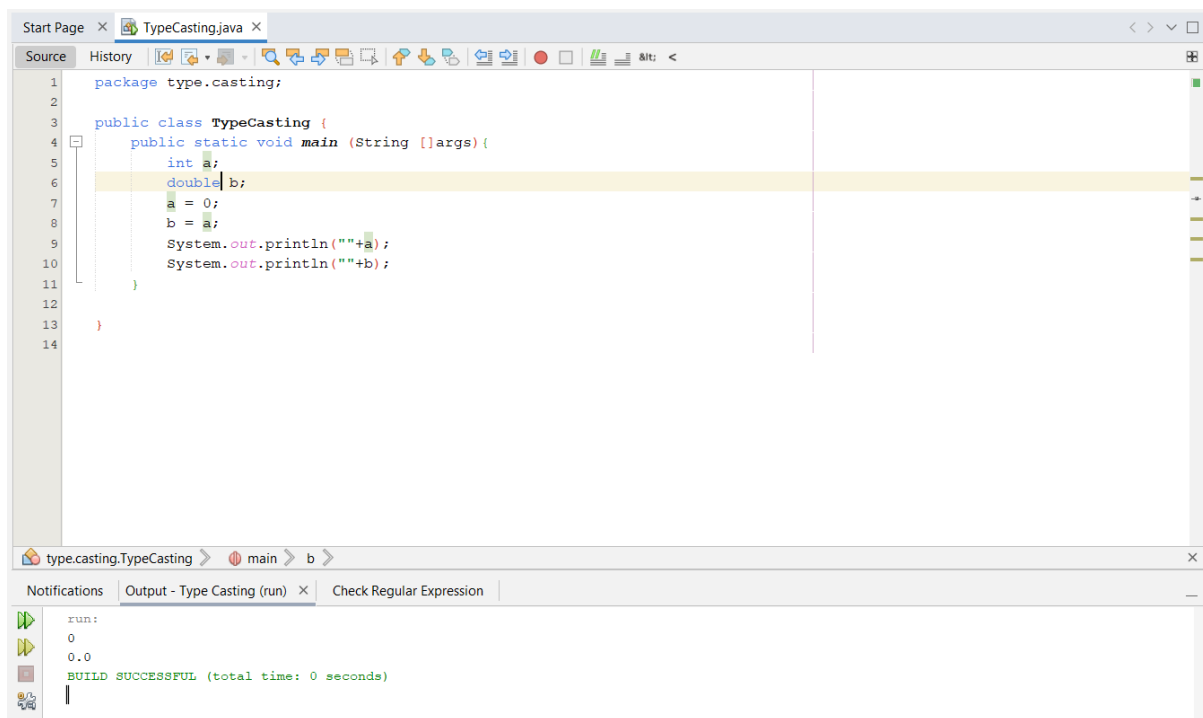
The output window at the bottom shows the following text:

```
run:
0
0.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**



## 31. int to double



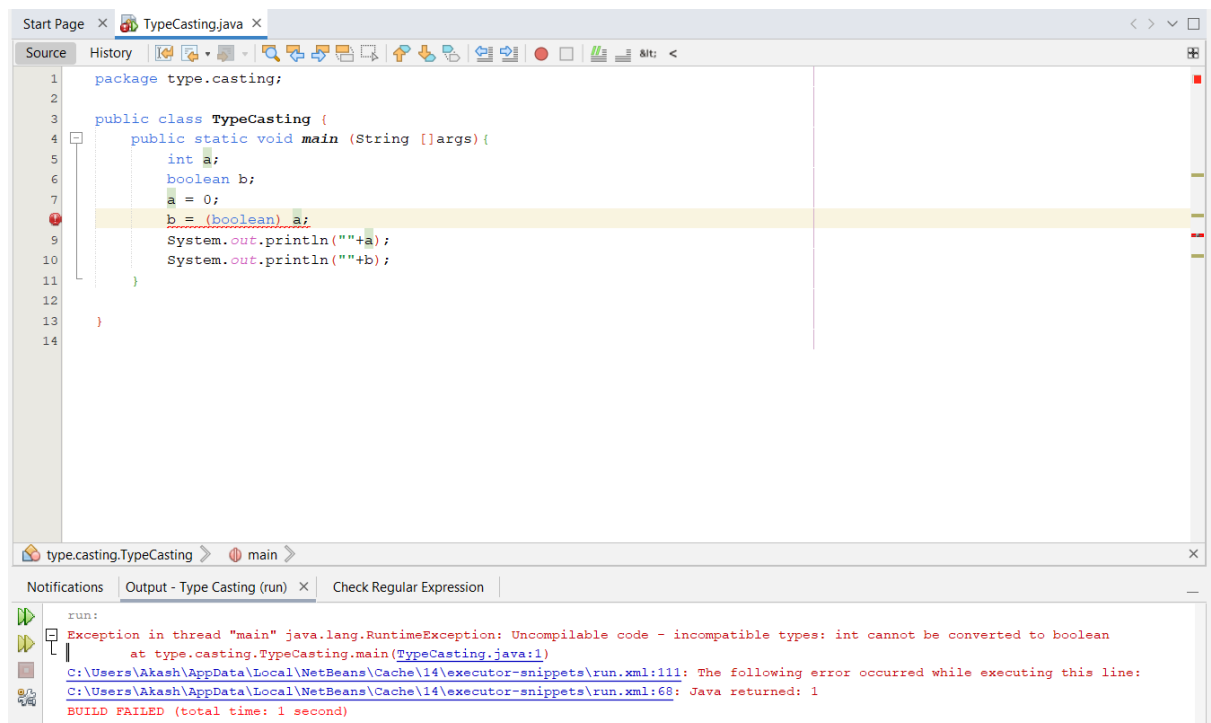
The screenshot shows an IDE window titled 'TypeCasting.java'. The code defines a class 'TypeCasting' with a 'main' method. Inside 'main', an 'int' variable 'a' is assigned the value 0, and a 'double' variable 'b' is assigned the value of 'a'. Both variables are printed to the console. The output window at the bottom shows '0' and '0.0', and a 'BUILD SUCCESSFUL' message.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         int a;
6         double b;
7         a = 0;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
0  
0.0  
BUILD SUCCESSFUL (total time: 0 seconds)

**Implicit typecasting required**

## 32. int to boolean



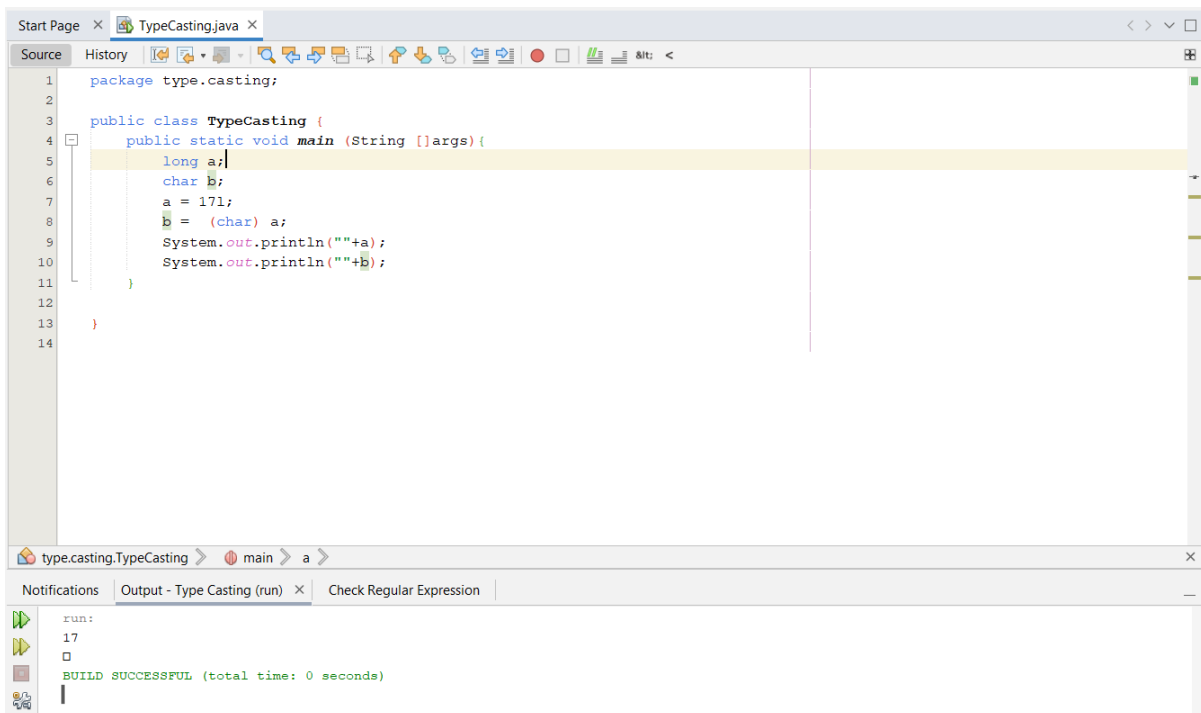
The screenshot shows the same IDE window with 'TypeCasting.java', but the code now attempts to cast an 'int' to a 'boolean'. Line 8, 'b = (boolean) a;', is highlighted in yellow and has a red error icon next to it. The output window shows a 'BUILD FAILED' message with a 'java.lang.RuntimeException: Uncompilable code - incompatible types: int cannot be converted to boolean'.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         int a;
6         boolean b;
7         a = 0;
8         b = (boolean) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: int cannot be converted to boolean  
at type.casting.TypeCasting.main(TypeCasting.java:1)  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1  
BUILD FAILED (total time: 1 second)

**Typecasting cannot be done**

### 33. long to char

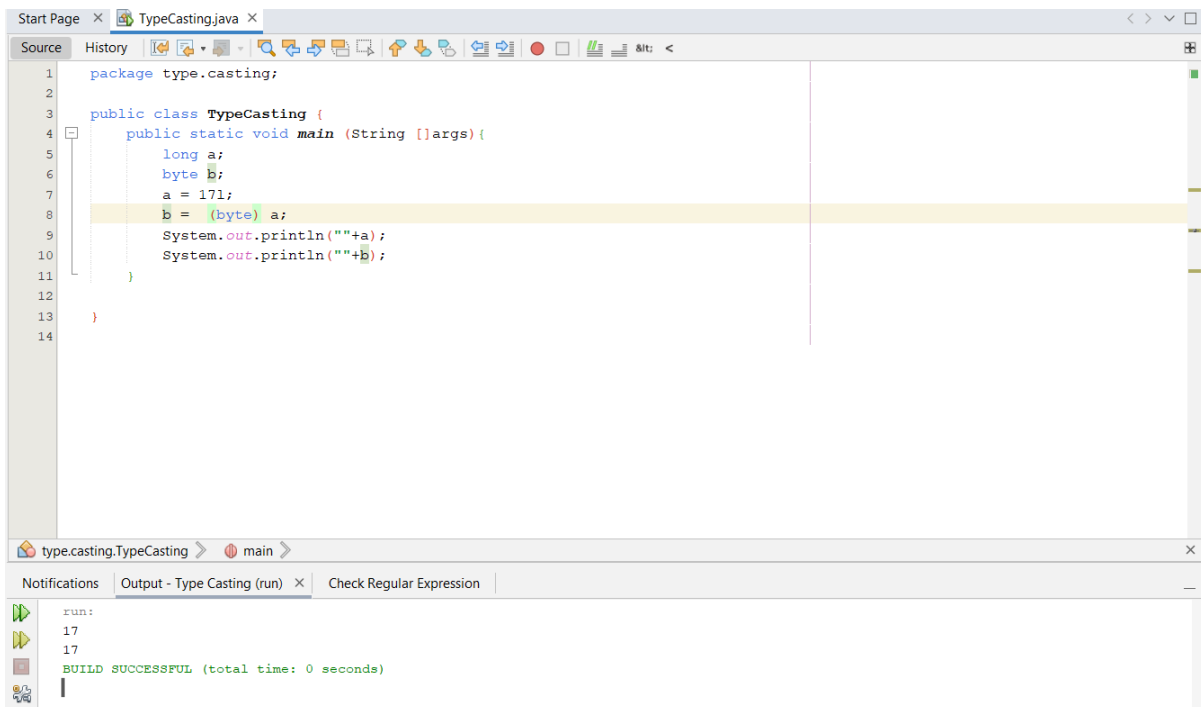


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         long a;
6         char b;
7         a = 171;
8         b = (char) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run: 17 17  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

### 34. long to byte

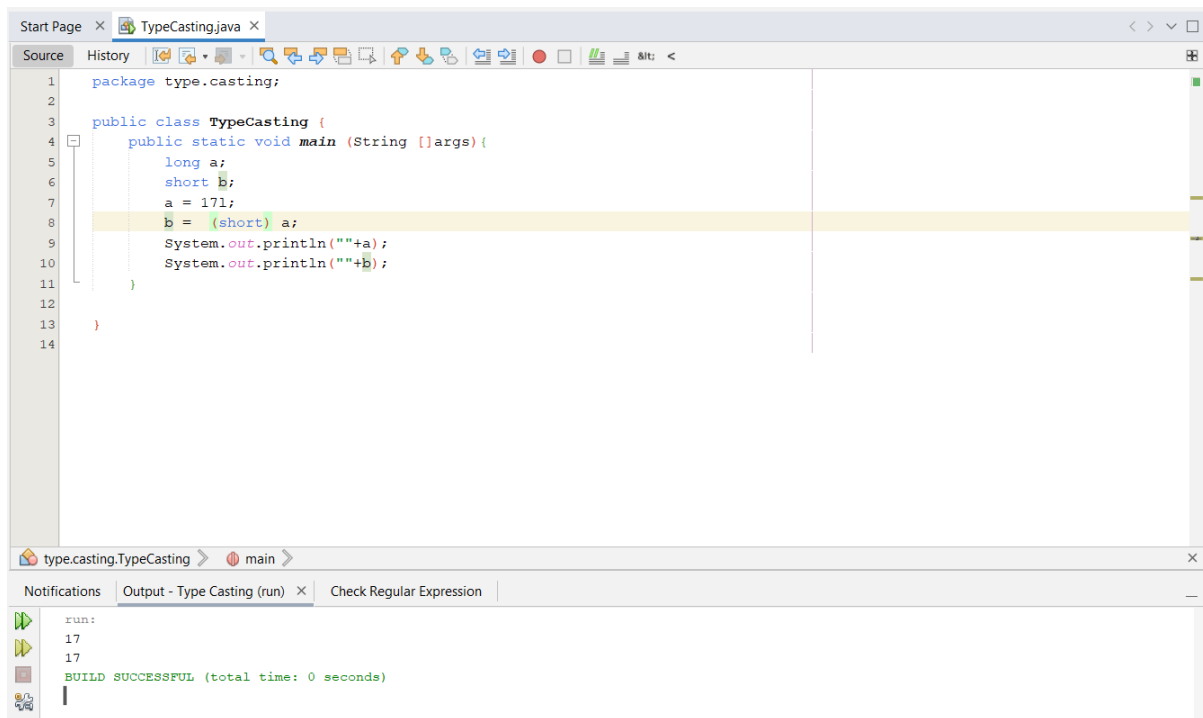


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         long a;
6         byte b;
7         a = 171;
8         b = (byte) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run: 17 17  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 35. long to short



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         long a;
6         short b;
7         a = 171;
8         b = (short) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

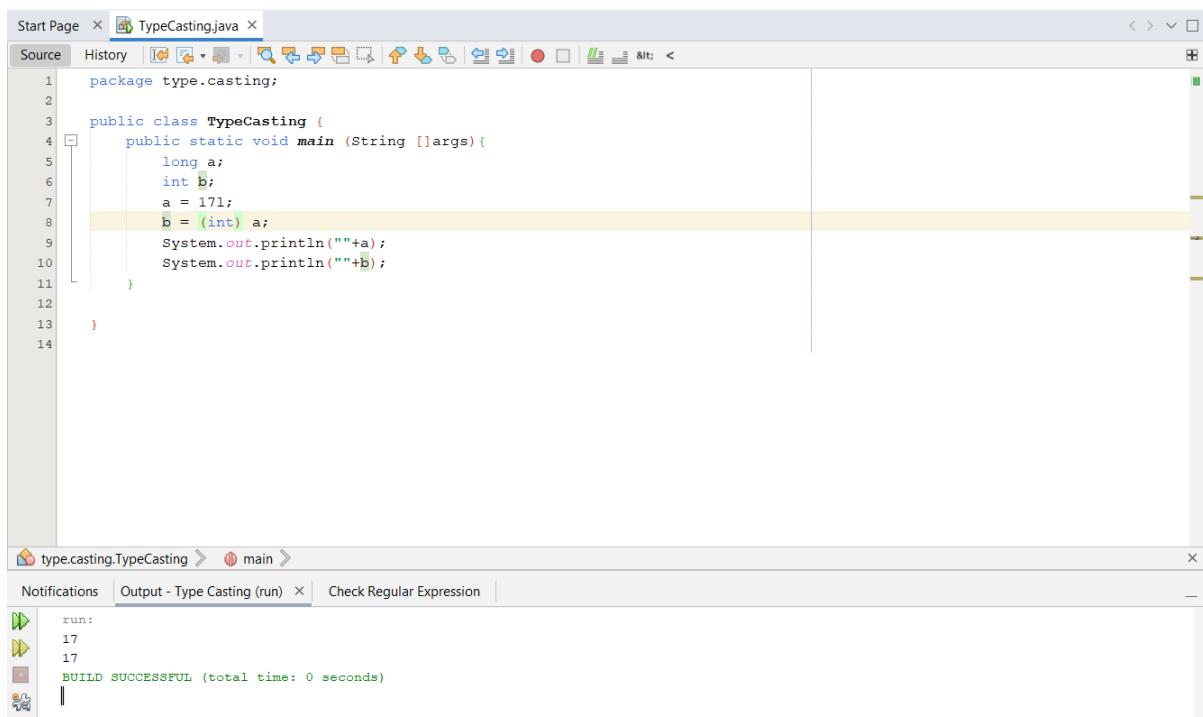
type.casting.TypeCasting > main

Notifications | Output - Type Casting (run) | Check Regular Expression

run:  
17  
17  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 36. long to int



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         long a;
6         int b;
7         a = 171;
8         b = (int) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

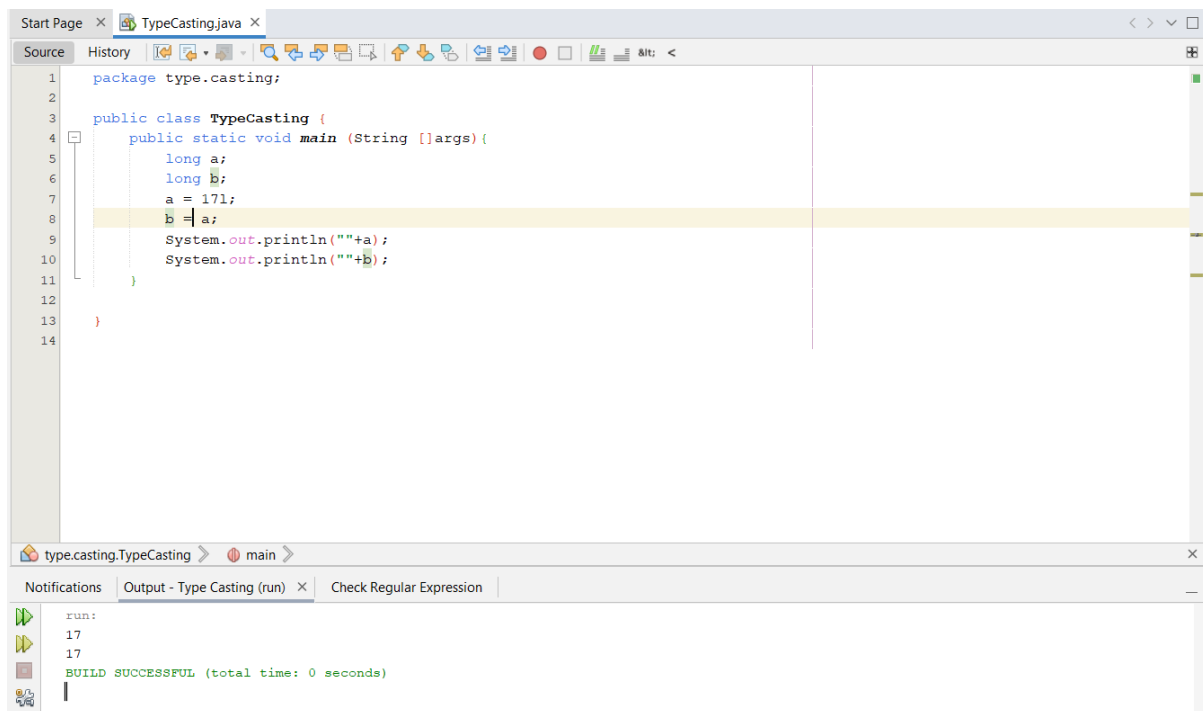
type.casting.TypeCasting > main

Notifications | Output - Type Casting (run) | Check Regular Expression

run:  
17  
17  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 37. long to long

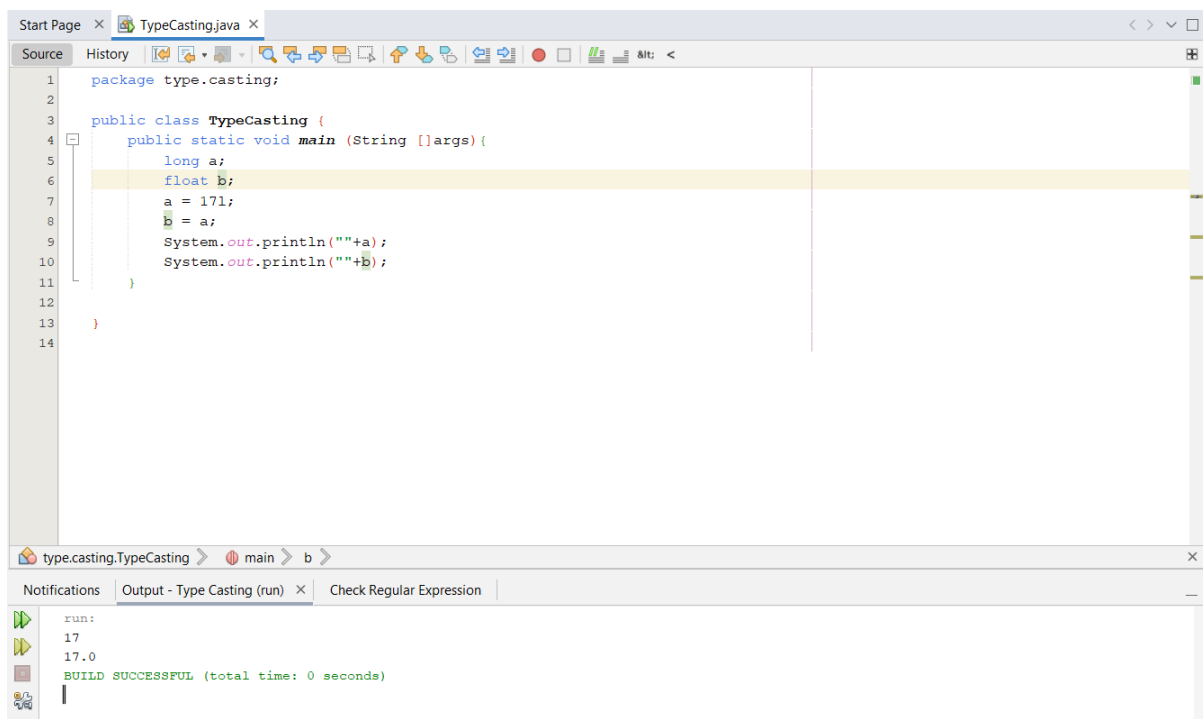


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         long a;
6         long b;
7         a = 171;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run: 17 17  
BUILD SUCCESSFUL (total time: 0 seconds)

**Typecasting not required**

## 38. long to float



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         long a;
6         float b;
7         a = 171;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run: 17 17.0  
BUILD SUCCESSFUL (total time: 0 seconds)

**Implicit typecasting required**

## 39. long to double

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         long a;
6         double b;
7         a = 171;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run:  
17  
17.0  
BUILD SUCCESSFUL (total time: 0 seconds)

## Implicit typecasting required

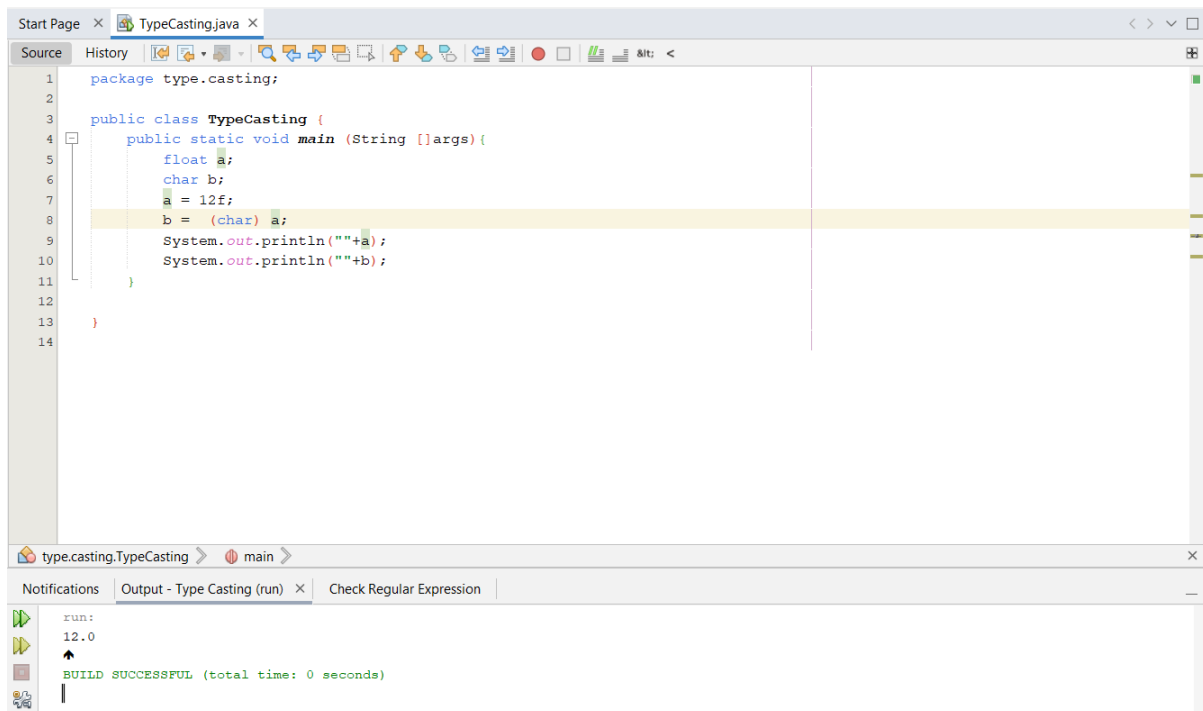
### 40. long to boolean

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         long a;
6         boolean b;
7         a = 171;
8         b = (boolean) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run:  
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: long cannot be converted to boolean  
at type.casting.TypeCasting.main(TypeCasting.java:1)  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1  
BUILD FAILED (total time: 1 second)

## Typecasting cannot be done

## 41. float to char



The screenshot shows an IDE window titled 'TypeCasting.java'. The code is as follows:

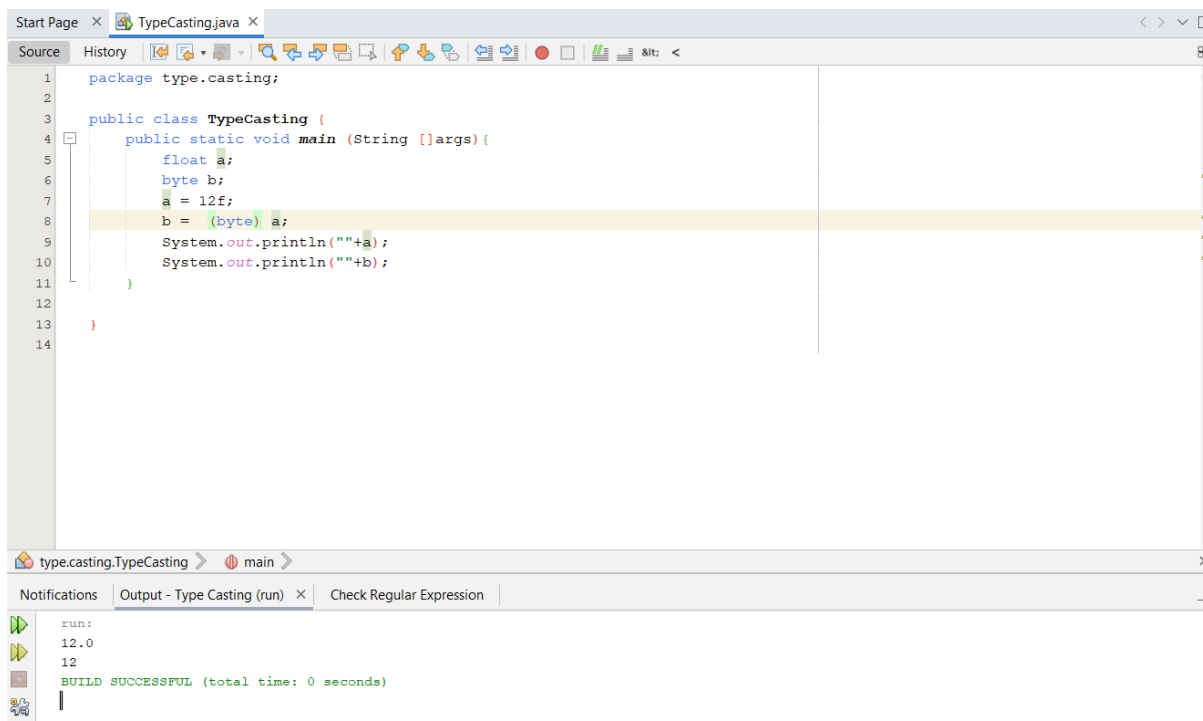
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         float a;
6         char b;
7         a = 12f;
8         b = (char) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following text:

```
run:
12.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 42. float to byte



The screenshot shows an IDE window titled 'TypeCasting.java'. The code is as follows:

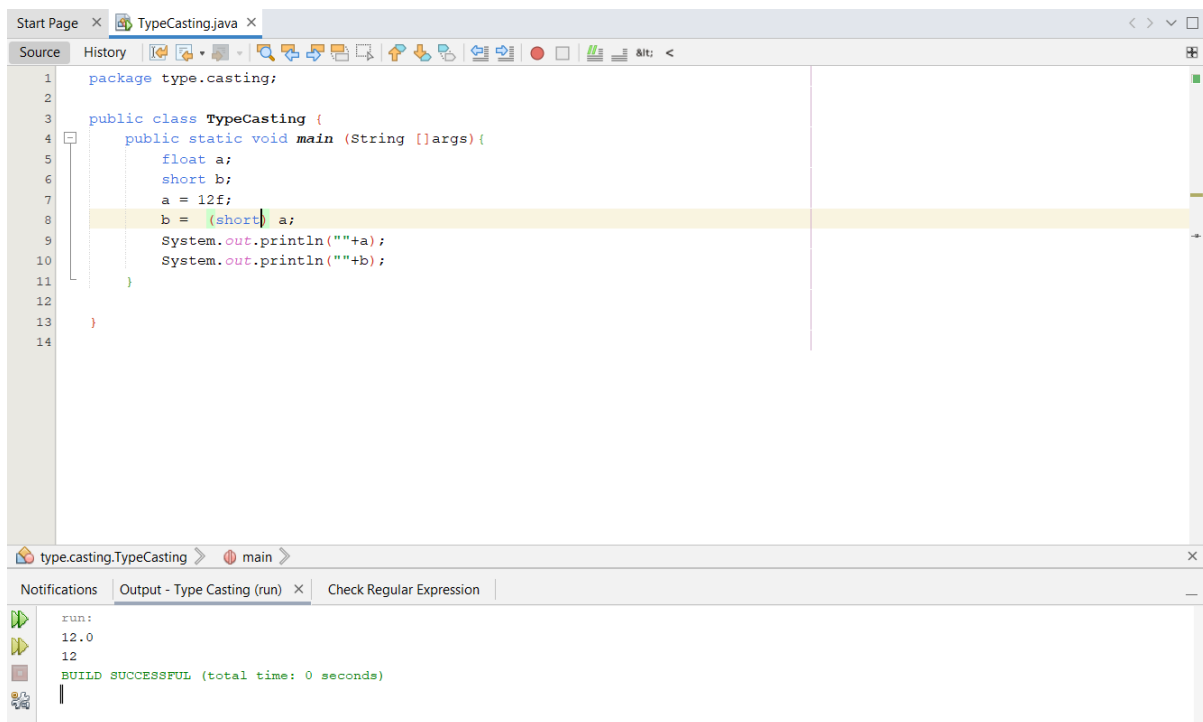
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         float a;
6         byte b;
7         a = 12f;
8         b = (byte) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following text:

```
run:
12.0
12
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 43. float to short



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

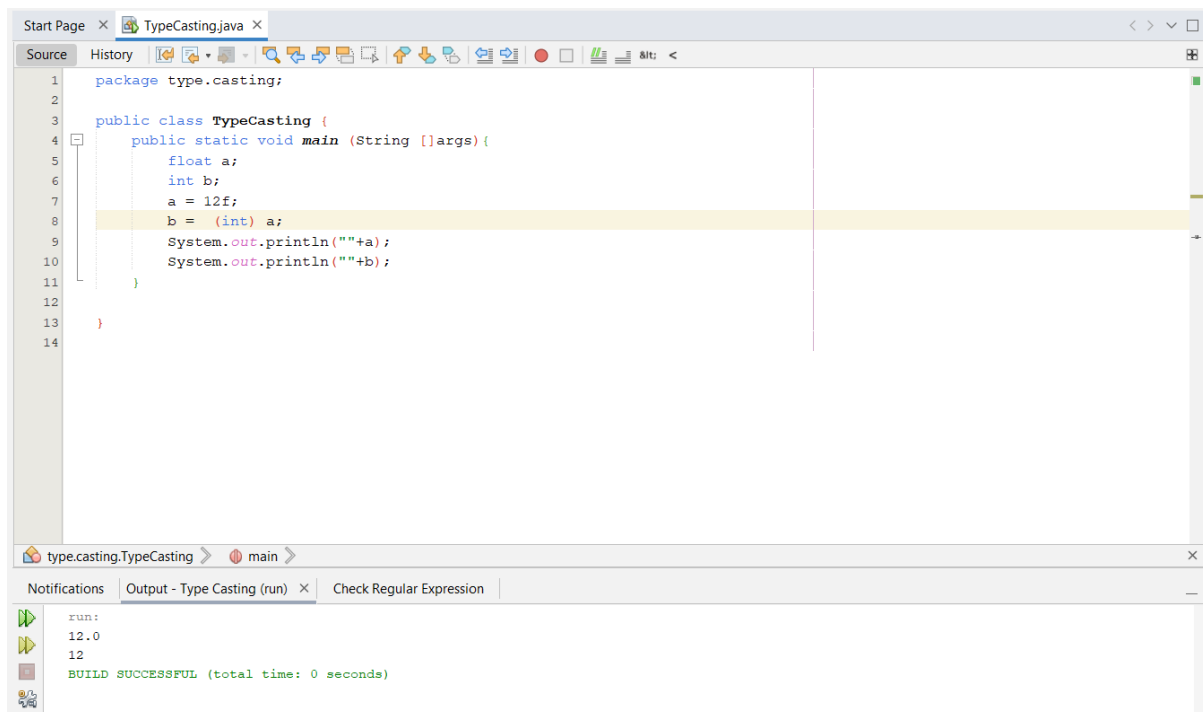
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         float a;
6         short b;
7         a = 12f;
8         b = (short) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following results:

```
run:
12.0
12
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 44. float to int



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

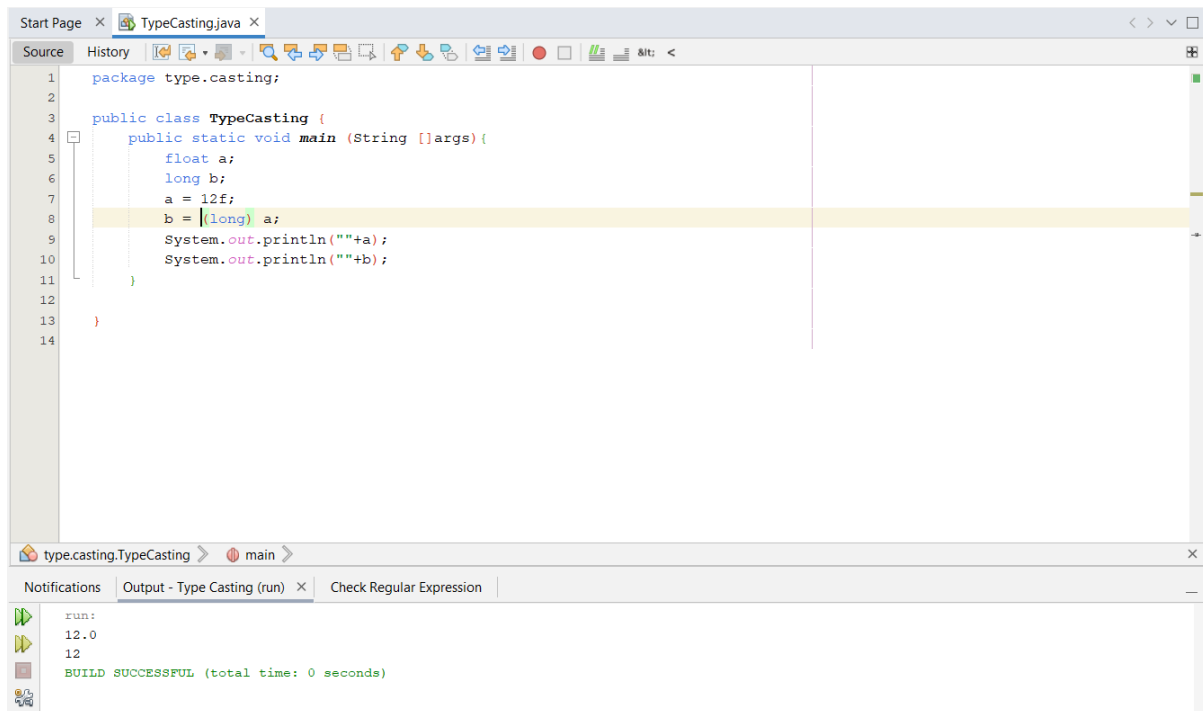
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         float a;
6         int b;
7         a = 12f;
8         b = (int) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window at the bottom shows the following results:

```
run:
12.0
12
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 45. float to long



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

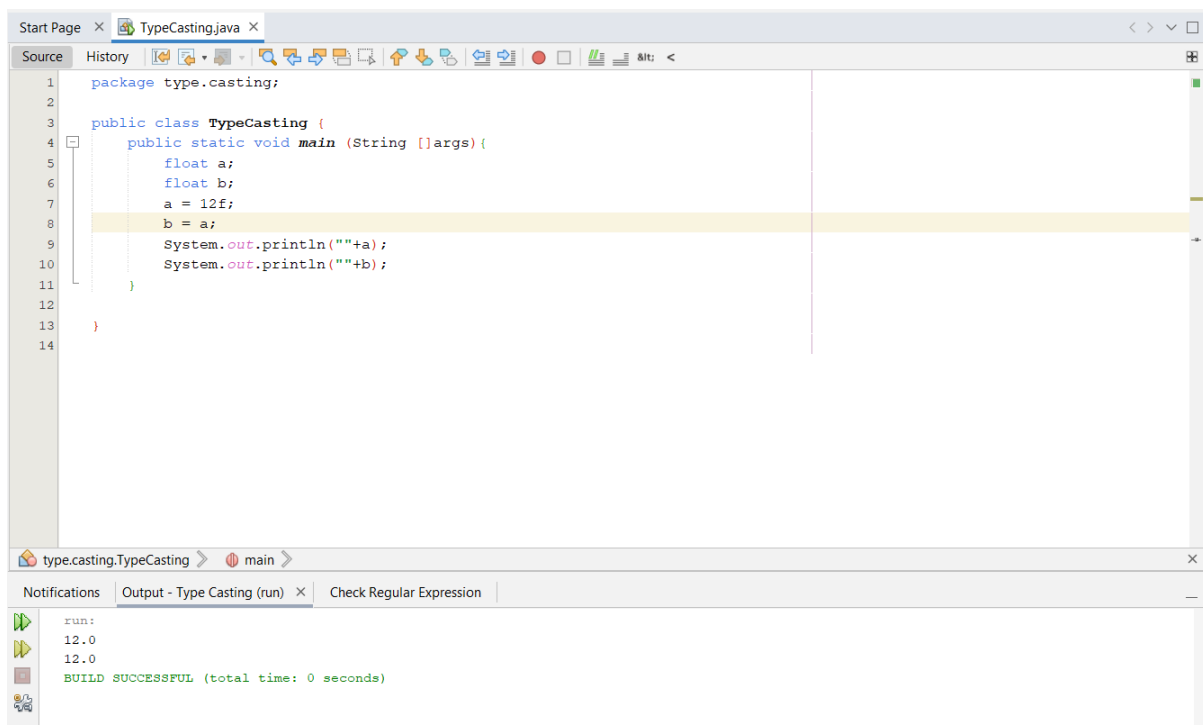
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         float a;
6         long b;
7         a = 12f;
8         b = (long) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The line `b = (long) a;` is highlighted in yellow. Below the code editor, the output window shows the results of running the program:

```
run:
12.0
12
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Explicit typecasting required**

## 46. float to float



The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         float a;
6         float b;
7         a = 12f;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

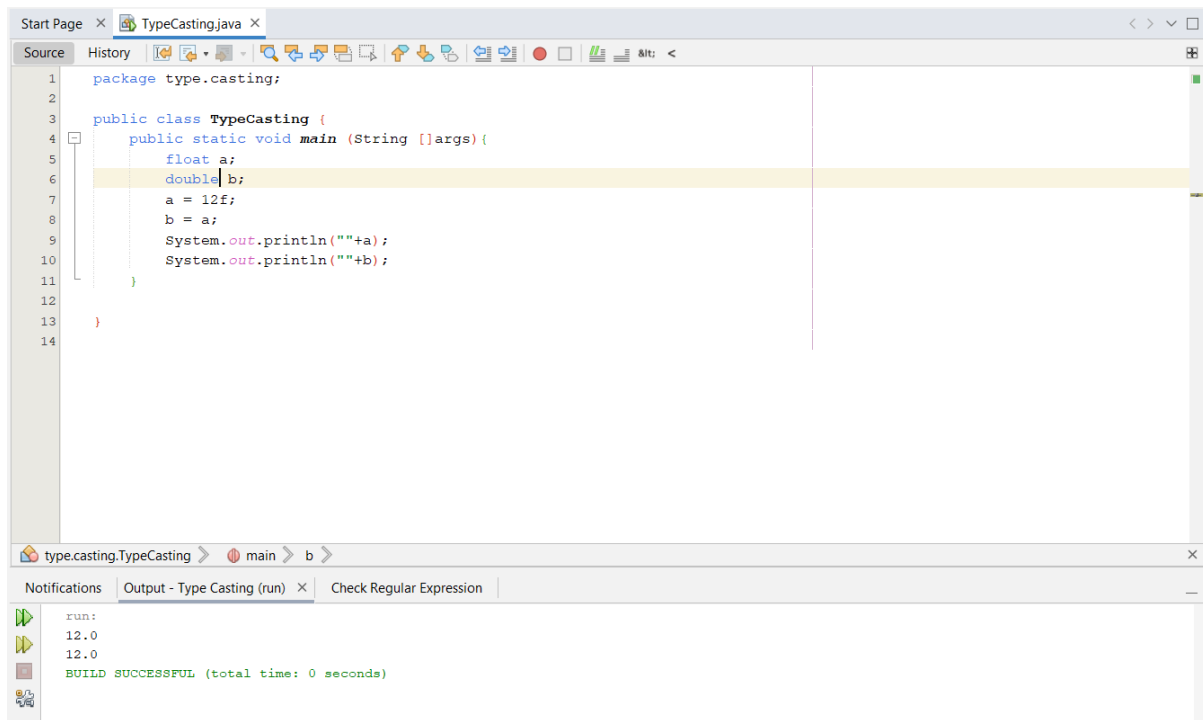
The line `b = a;` is highlighted in yellow. Below the code editor, the output window shows the results of running the program:

```
run:
12.0
12.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**



## 47. float to double



The screenshot shows an IDE window titled 'TypeCasting.java'. The source code is as follows:

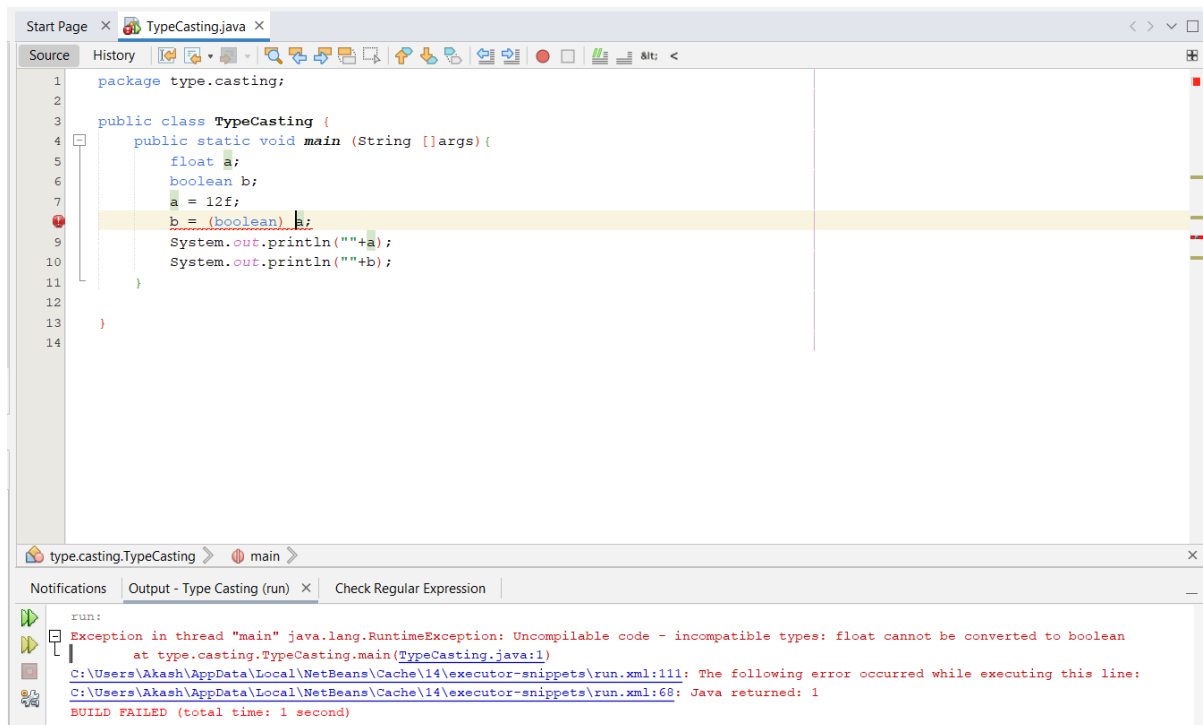
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         float a;
6         double b;
7         a = 12f;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

The output window at the bottom shows the following output:

```
run:
12.0
12.0
BUILD SUCCESSFUL (total time: 0 seconds)
```

**Implicit typecasting required**

## 48. float to boolean



The screenshot shows an IDE window titled 'TypeCasting.java'. The source code is as follows:

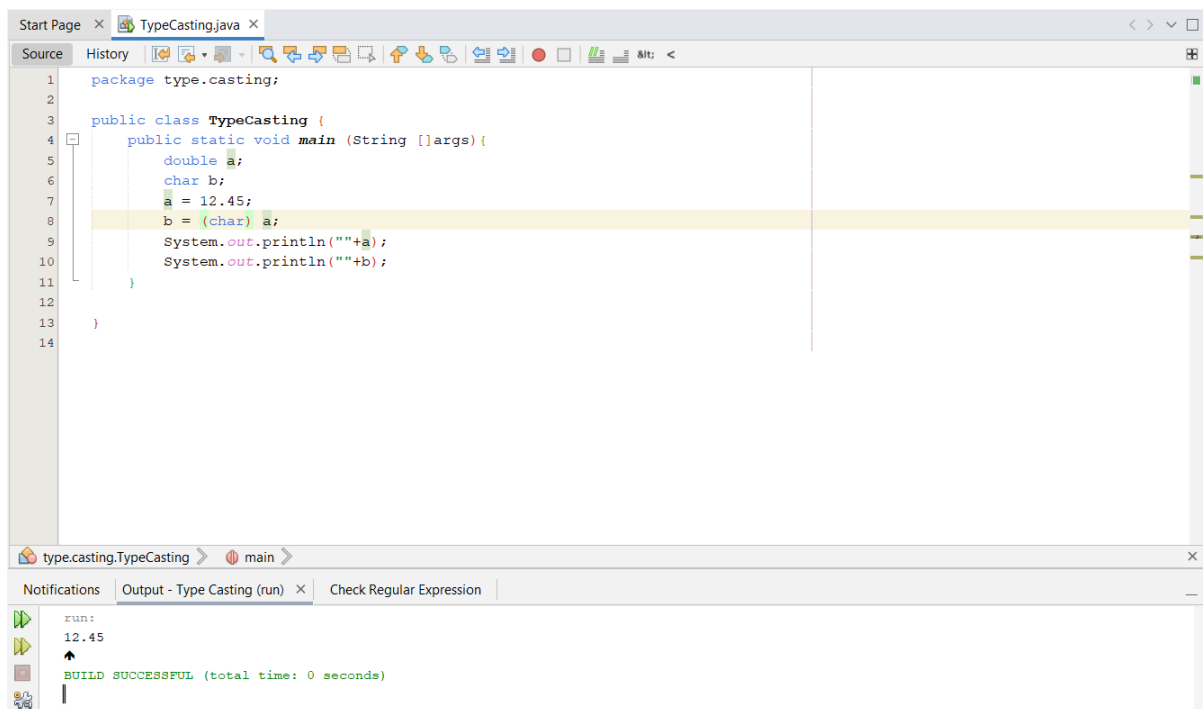
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         float a;
6         boolean b;
7         a = 12f;
8         b = (boolean) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

The output window at the bottom shows the following error message:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: float cannot be converted to boolean
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 1 second)
```

**Typecasting cannot be done**

## 49. double to char



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         double a;
6         char b;
7         a = 12.45;
8         b = (char) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

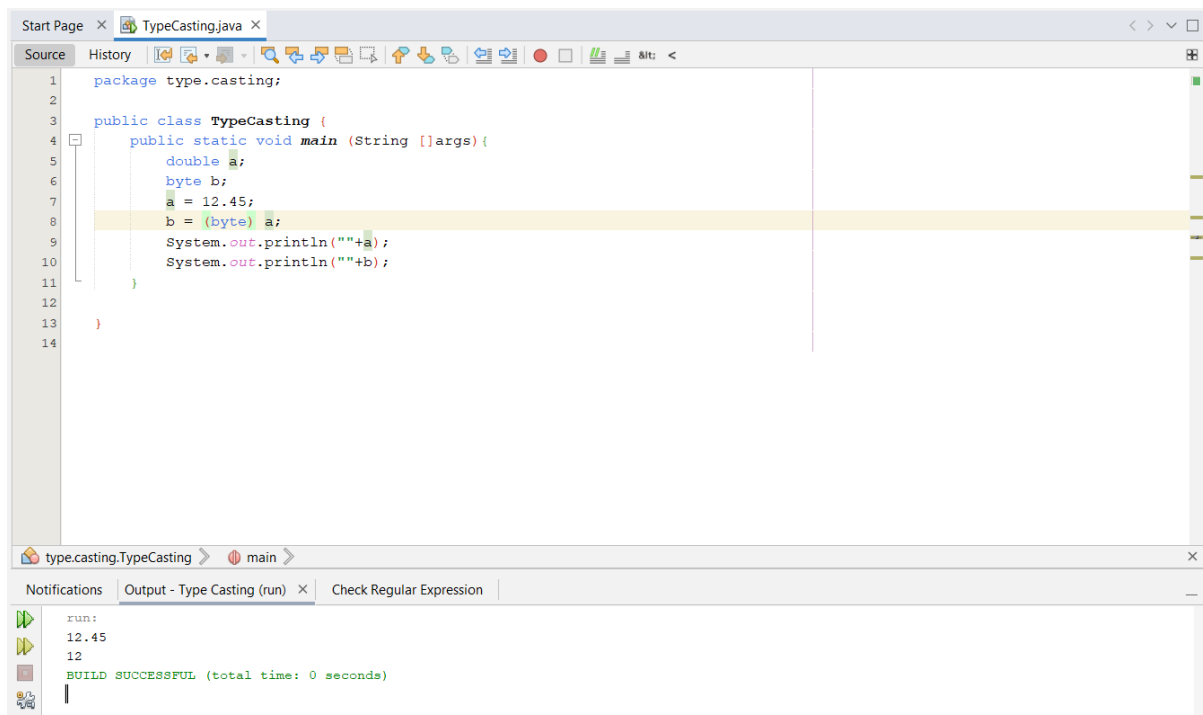
type.casting.TypeCasting > main

Notifications Output - Type Casting (run) Check Regular Expression

run:  
12.45  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 50. double to byte



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         double a;
6         byte b;
7         a = 12.45;
8         b = (byte) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

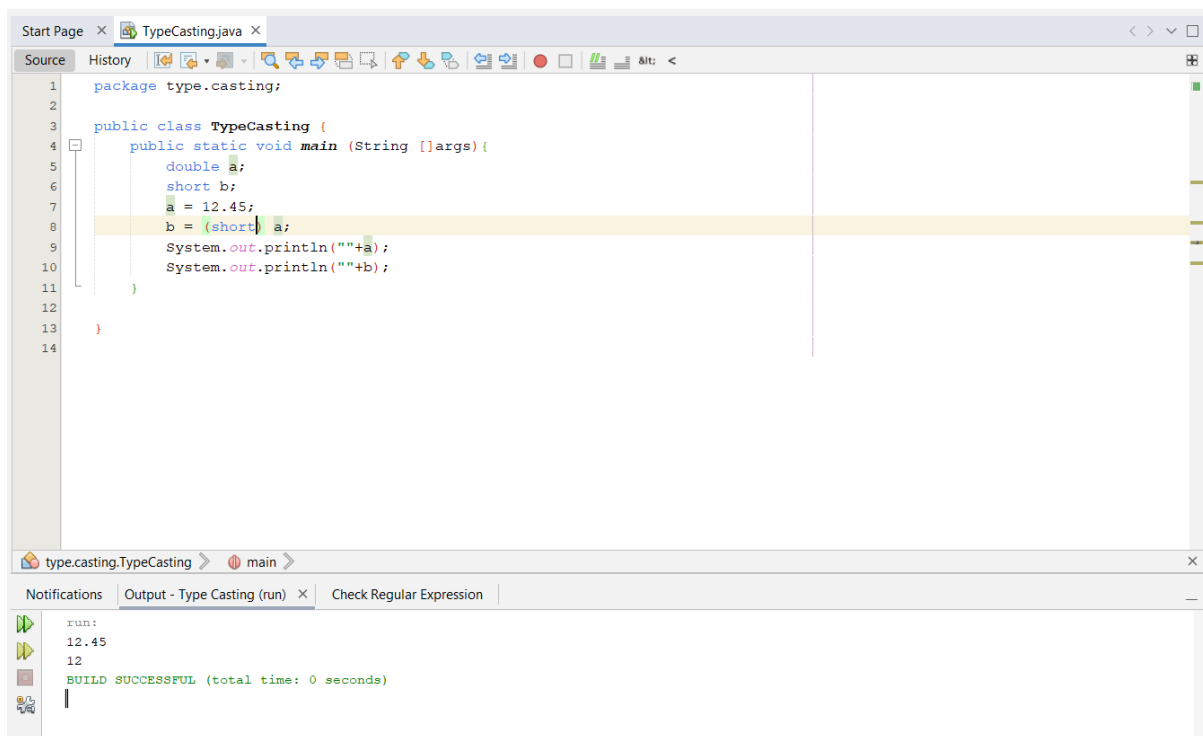
type.casting.TypeCasting > main

Notifications Output - Type Casting (run) Check Regular Expression

run:  
12.45  
12  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 51. double to short

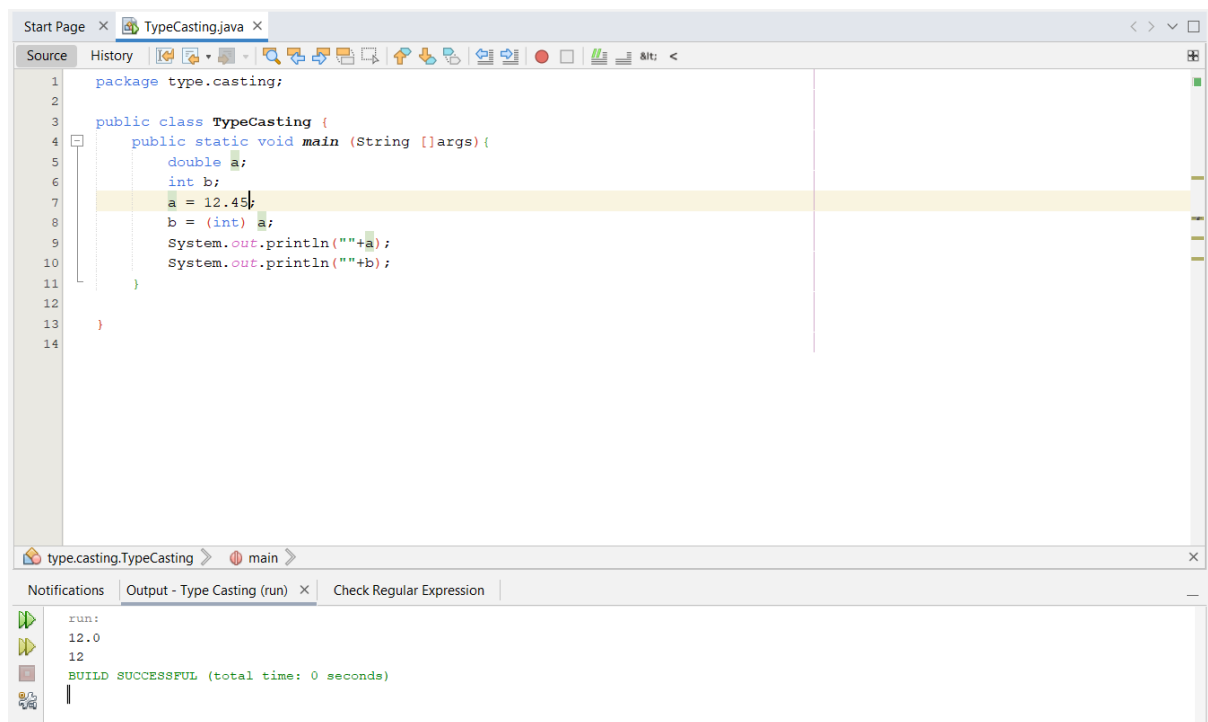


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         double a;
6         short b;
7         a = 12.45;
8         b = (short) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
12.45  
12  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 52. double to int



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         double a;
6         int b;
7         a = 12.45;
8         b = (int) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
12.0  
12  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 53. double to long

The screenshot shows an IDE window titled 'TypeCasting.java'. The code defines a class `TypeCasting` with a `main` method. Inside `main`, a `double` variable `a` is initialized to `12.45`, and a `long` variable `b` is assigned the value of `a` using an explicit cast: `b = (long) a;`. The code then prints the values of `a` and `b`. The output window at the bottom shows the results of running the program: `run: 12.45` and `12`, followed by `BUILD SUCCESSFUL (total time: 0 seconds)`.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         double a;
6         long b;
7         a = 12.45;
8         b = (long) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
12.45  
12  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 54. double to float

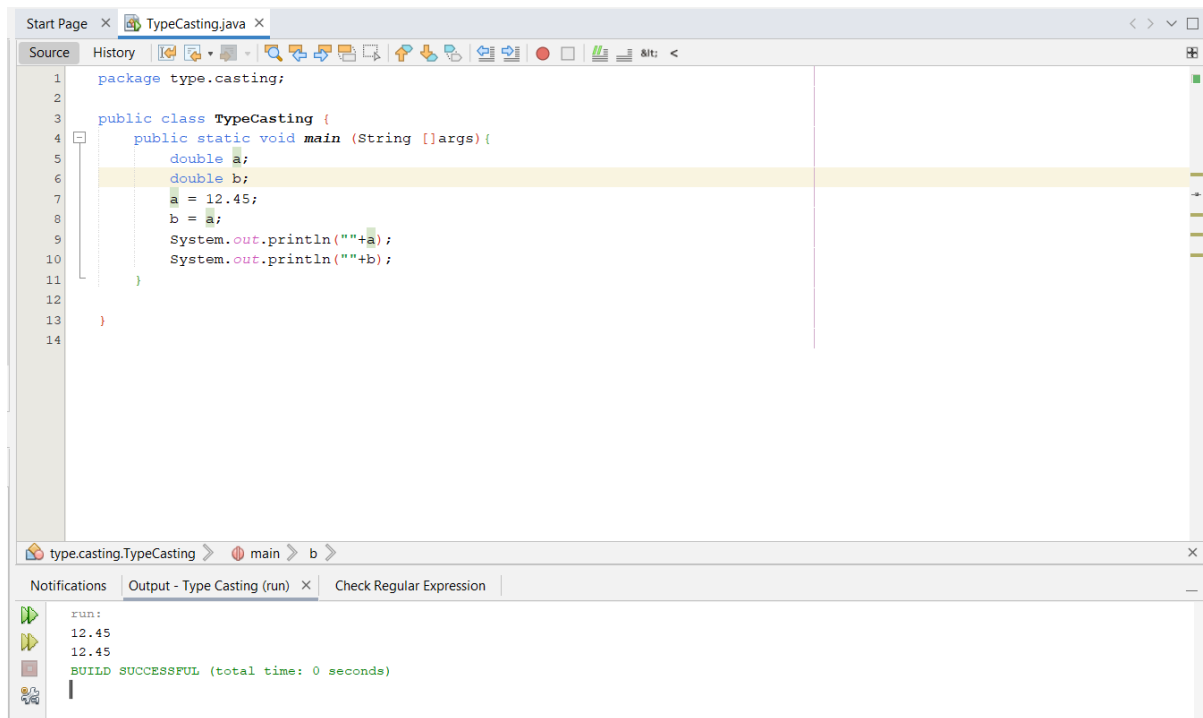
The screenshot shows an IDE window titled 'TypeCasting.java'. The code defines a class `TypeCasting` with a `main` method. Inside `main`, a `double` variable `a` is initialized to `12.45`, and a `float` variable `b` is assigned the value of `a` using an explicit cast: `b = (float) a;`. The code then prints the values of `a` and `b`. The output window at the bottom shows the results of running the program: `run: 12.45` and `12.45`, followed by `BUILD SUCCESSFUL (total time: 0 seconds)`.

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         double a;
6         float b;
7         a = 12.45;
8         b = (float) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

run:  
12.45  
12.45  
BUILD SUCCESSFUL (total time: 0 seconds)

**Explicit typecasting required**

## 55. double to double

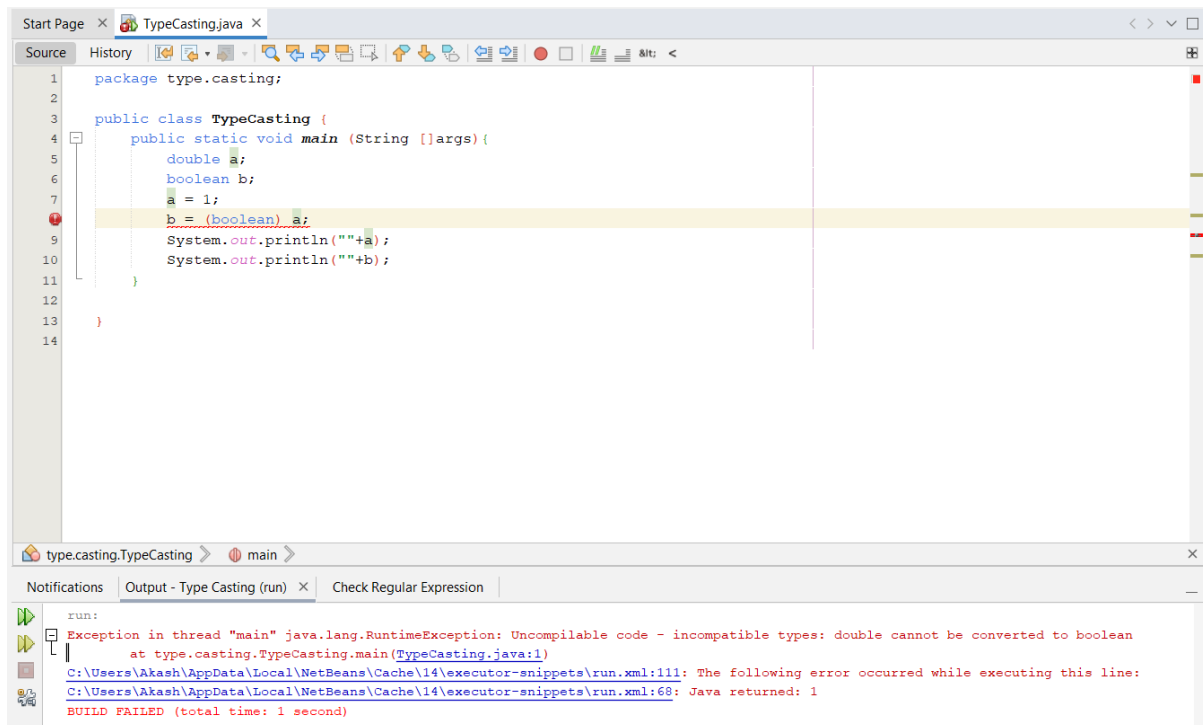


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         double a;
6         double b;
7         a = 12.45;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run:  
12.45  
12.45  
BUILD SUCCESSFUL (total time: 0 seconds)

**Typecasting not required**

## 56. double to boolean

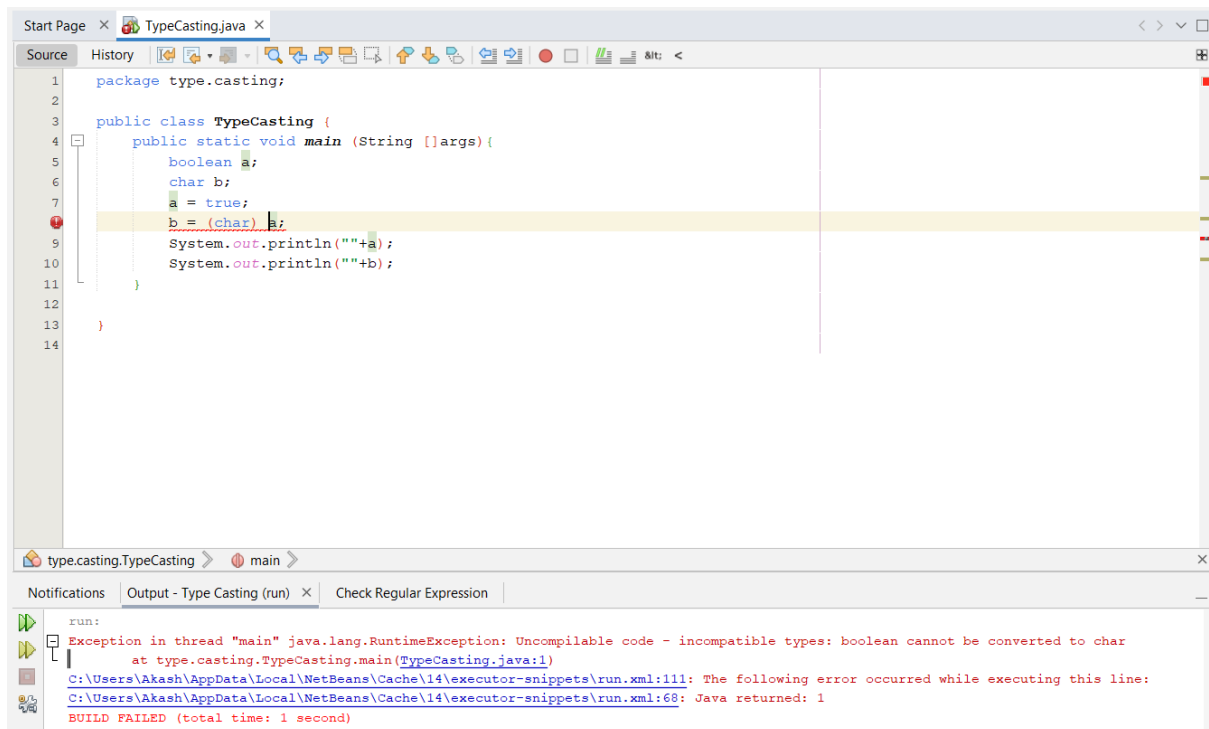


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         double a;
6         boolean b;
7         a = 1;
8         b = (boolean) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run:  
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: double cannot be converted to boolean  
at type.casting.TypeCasting.main(TypeCasting.java:1)  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1  
BUILD FAILED (total time: 1 second)

**Typecasting cannot be done**

## 57. boolean to char



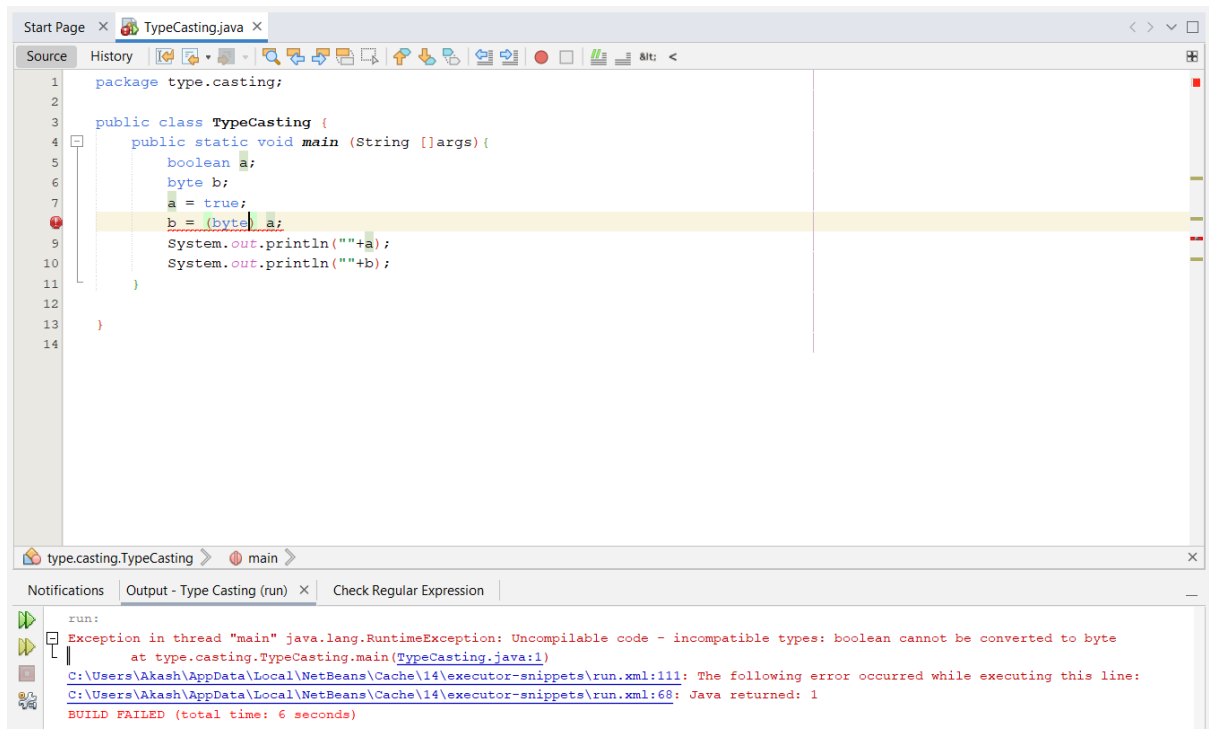
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         boolean a;
6         char b;
7         a = true;
8         b = (char) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run:

```
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: boolean cannot be converted to char
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 1 second)
```

**Typecasting cannot be done**

## 58. boolean to byte



```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         boolean a;
6         byte b;
7         a = true;
8         b = (byte) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run:

```
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: boolean cannot be converted to byte
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 6 seconds)
```

**Typecasting cannot be done**

## 59. boolean to short

The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         boolean a;
6         short b;
7         a = true;
8         b = (short) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window shows the following error message:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: boolean cannot be converted to short
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 1 second)
```

**Typecasting cannot be done**

## 60. boolean to int

The screenshot shows an IDE window with a file named `TypeCasting.java`. The code is as follows:

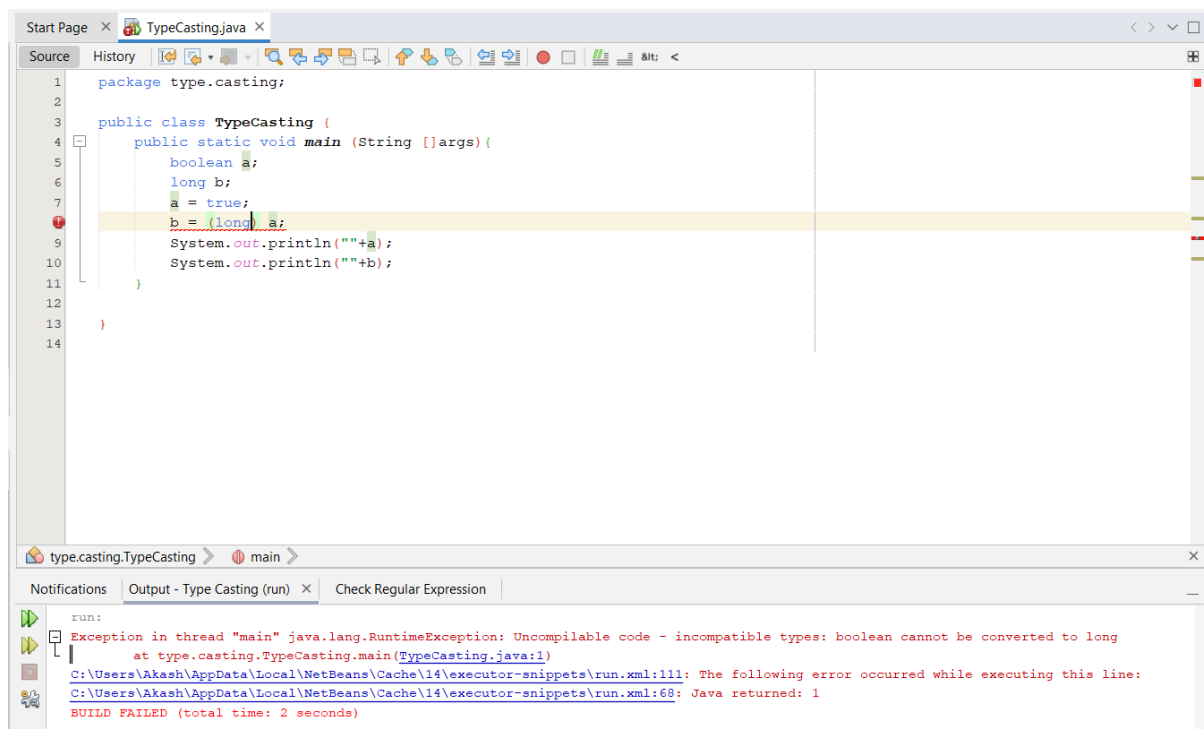
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         boolean a;
6         int b;
7         a = true;
8         b = (int) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window shows the following error message:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: boolean cannot be converted to int
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 3 seconds)
```

**Typecasting cannot be done**

## 61. boolean to long



The screenshot shows an IDE window titled "TypeCasting.java". The code is as follows:

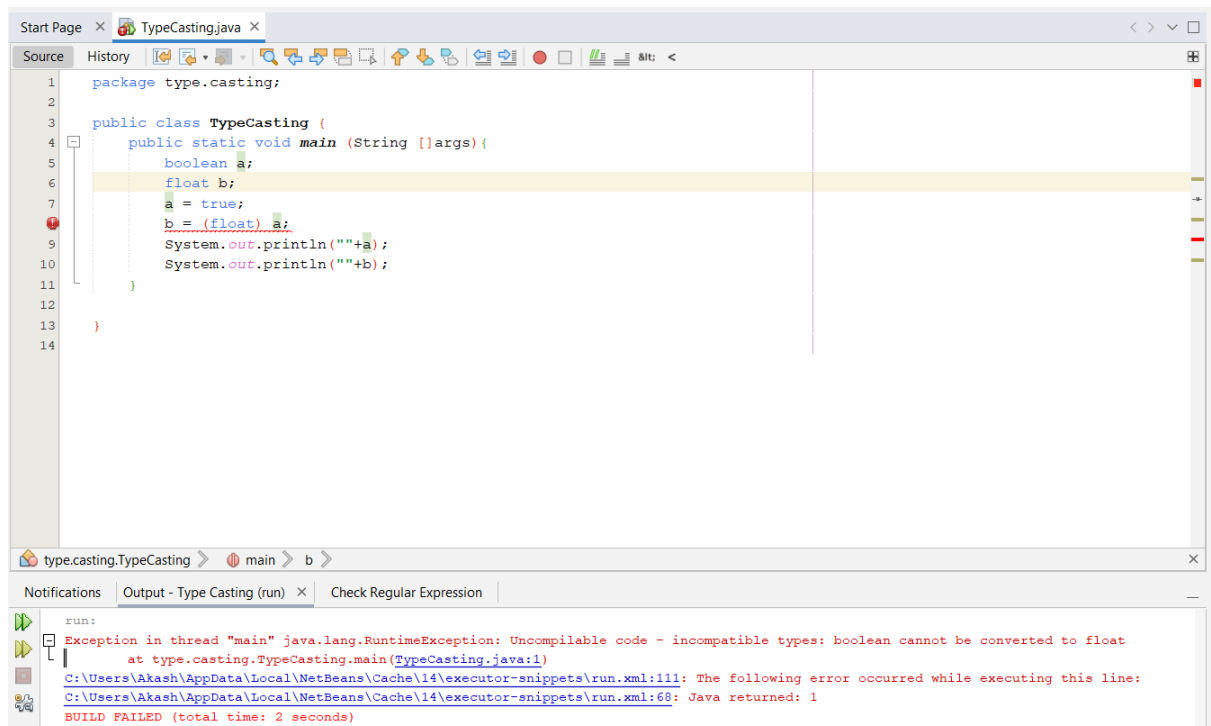
```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         boolean a;
6         long b;
7         a = true;
8         b = (long) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

The IDE's output window shows the following error:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: boolean cannot be converted to long
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 2 seconds)
```

**Typecasting cannot be done**

## 62. boolean to float



The screenshot shows an IDE window titled "TypeCasting.java". The code is as follows:

```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args) {
5         boolean a;
6         float b;
7         a = true;
8         b = (float) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12 }
13
14
```

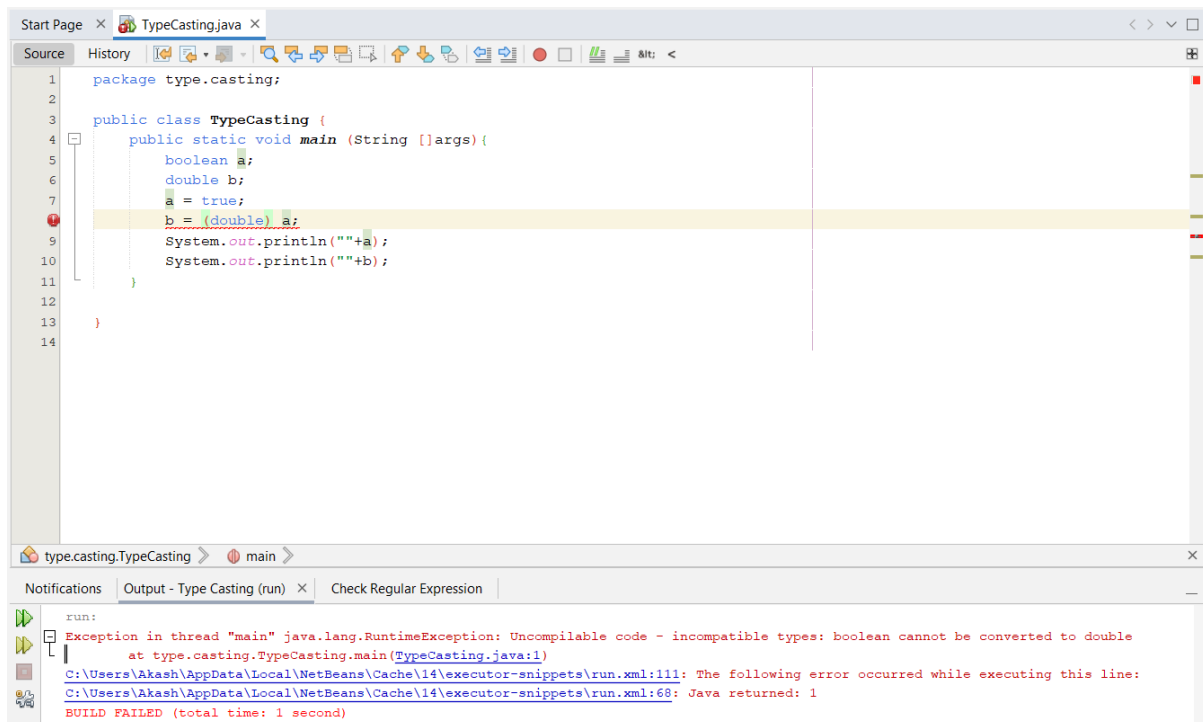
The IDE's output window shows the following error:

```
run:
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: boolean cannot be converted to float
    at type.casting.TypeCasting.main(TypeCasting.java:1)
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1
BUILD FAILED (total time: 2 seconds)
```

**Typecasting cannot be done**



## 63. boolean to double

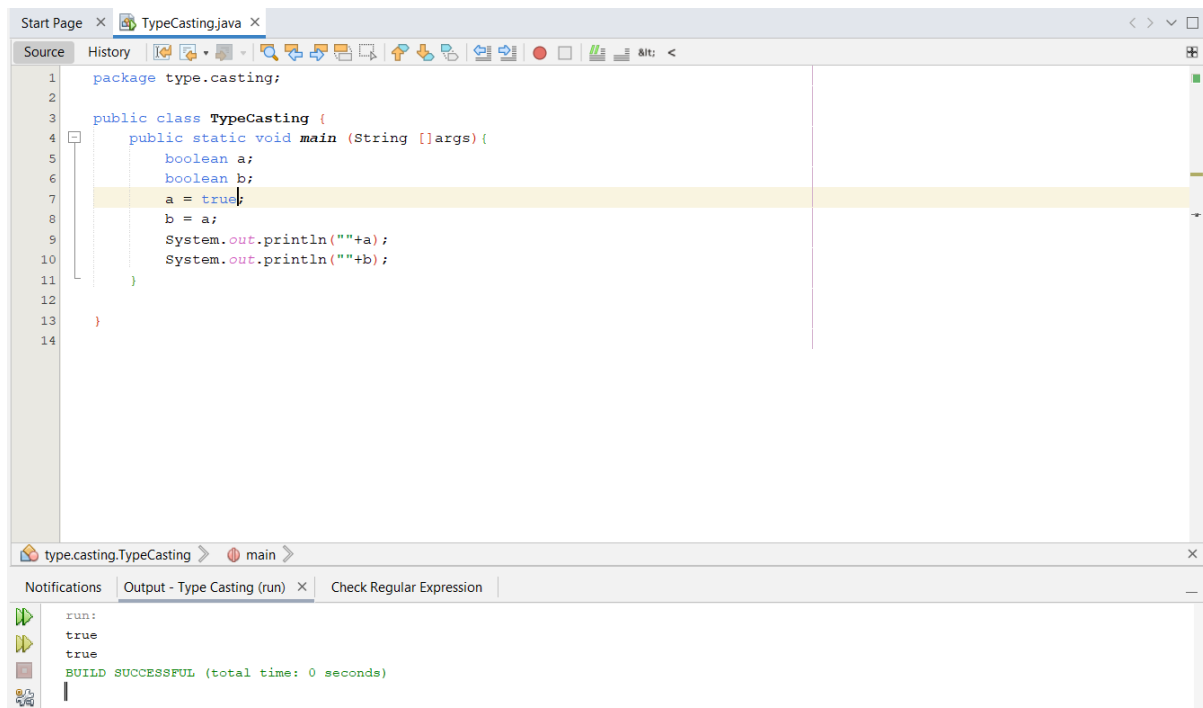


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         boolean a;
6         double b;
7         a = true;
8         b = (double) a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

run:  
Exception in thread "main" java.lang.RuntimeException: Uncompilable code - incompatible types: boolean cannot be converted to double  
at type.casting.TypeCasting.main(TypeCasting.java:1)  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:111: The following error occurred while executing this line:  
C:\Users\Akash\AppData\Local\NetBeans\Cache\14\executor-snippets\run.xml:68: Java returned: 1  
BUILD FAILED (total time: 1 second)

**Typecasting cannot be done**

## 64. boolean to boolean

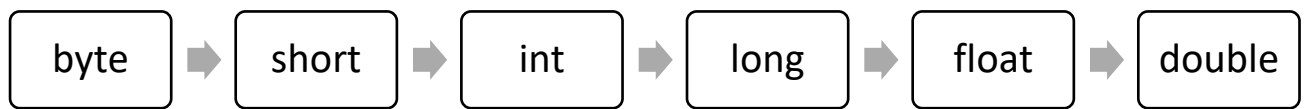


```
1 package type.casting;
2
3 public class TypeCasting {
4     public static void main (String []args){
5         boolean a;
6         boolean b;
7         a = true;
8         b = a;
9         System.out.println(""+a);
10        System.out.println(""+b);
11    }
12
13 }
14
```

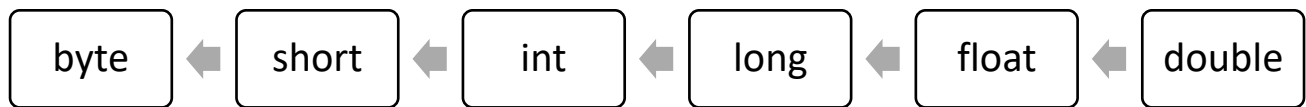
run:  
true  
true  
BUILD SUCCESSFUL (total time: 0 seconds)

**Typecasting not required**

### Implicit Typecasting:



### Explicit Typecasting:



### Conclusion:

	char	byte	short	int	long	float	double	boolean
char	-	✓	✓	✓	✓	✓	✓	✗
byte	✓	-	✓	✓	✓	✓	✓	✗
short	✓	✓	-	✓	✓	✓	✓	✗
int	✓	✓	✓	-	✓	✓	✓	✗
long	✓	✓	✓	✓	-	✓	✓	✗
float	✓	✓	✓	✓	✓	-	✓	✗
double	✓	✓	✓	✓	✓	✓	-	✗
boolean	✗	✗	✗	✗	✗	✗	✗	-

- : Typecasting not required

✓ : Explicit typecasting required

✓ : Implicit typecasting required

✗ : Casting cannot be done