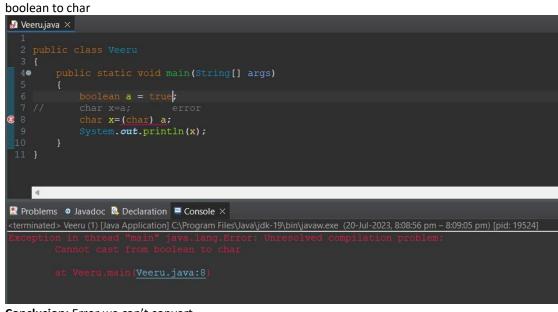
Data types and its conversions 1. byte to char ☑ Veeru.java × 40 char x=(char) a; System.out.println(x); 🔐 Problems 🏿 Javadoc 🚇 Declaration 📮 Console 🗵 Conclusion: Implicit conversion is done here short to char Veeru.java × public static void main(String[] args) short a = 8; char x=a; error char x=(char) a; system.out.println(x); 🔛 Problems 🏿 Javadoc 🚇 Declaration 💂 Console 🗵 Conclusion: Implicit conversion is done here int to char ☑ Veeru.java × int a = 8; char x=a; error char x=(char) a; System.out.println(x); Conclusion: Implicit conversion is done her.

1

```
float to char
☑ Veeru.java ×
  2 public class Veeru
3 [
  4●
5
       🔐 Problems @ Javadoc 🚇 Declaration 💻 Console 🗵
Conclusion: Implicit conversion is done here.
double to char
☑ Veeru.java ×
 🖁 Problems @ Javadoc 📴 Declaration 🗏 Console ×
<terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 8:06:45 pm – 8:06:50 pm) [pid: 15192]
Conclusion: Implicit conversion is done here
long to char
🛭 Veeru.java 🗵
   3 [
  4● 5
        long a = 8;
char x=a; error
char x=(char) a;
System.out.println(x);
 🖁 Problems 🏿 Javadoc 💁 Declaration 📮 Console 🗵
<terminated > Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 8:07:19 pm – 8:07:24 pm) [pid: 11324]
Conclusion: Implicit conversion is done here
```



Conclusion: Error we can't convert.

Conclusion: Implicit conversion is done here.

short to byte

Conclusion: Implicit conversion is done here

int to byte

Conclusion: Implicit conversion is done here

Conclusion: Implicit conversion is done here

double to byte

Conclusion: Implicit conversion is done here

long to byte

Conclusion: Implicit conversion is done here.

Doolean to byte Doolean to byte Veerujava × 1 2 public class Veeru 3 [4 public static void main(String[] args) 5 { 6 boolean a = true; 7 / byte x=a; error 9 byte x=(byte) a; //error 9 System.out.println(x); 10 } 11 } R Problems ② Javadoc ② Declaration ③ Console × <terminated > Veeru (1) [Java Application] C\Program Files\Java\Jdk-19\bin\Javaw.exe (20-Jul-2023, 9:58:08 pm - 9:58:16 pm) [pid: 17212] Exception in thread "main" java.lang.Error: Unresolved compilation problem: Cannot cast from boolean to byte

Conclusion: Error! We can't convert.

Char to short D Veerujava × 1 2 public class Veeru 3 { 4 public static void main(String[] args) 5 { 6 char a = 'v'; 7 // short | x=a; error 8 short x=(short) a; 9 System.out.println(x); 10 } 11 } R Problems D Javadoc Declaration Console × <terminated > Veeru (1) [Java Application] C\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 9:59:48 pm - 9:59:53 pm) [pid: 19512] 118

Conclusion: Implicit conversion is done here

byte to short

Conclusion: Implicit conversion is done here

int to short

```
public class Veeru

public static void main(String[] args)

int a = 36;

int a = 36;

int a = 36;

short x=a; error

short x=(short) a;

system.out.println(x);

}

R Problems Javadoc Declaration Console ×

sterminated Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:00:24 pm - 10:00:29 pm) [pid: 11372]

36
```

Conclusion: Implicit conversion is done here.

float to short ☑ Veeru.java × 🔐 Problems 🍳 Javadoc 🔼 Declaration 🗏 Console 🗵 <terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:00:24 pm – 10:00:29 pm) [pid: 11372] 36 Conclusion: Implicit conversion is done here double to short ☑ Veeru.java × double a = 36.3636; 7 // short x=a; error 8 short x=(short) a; 9 System.out.println(x); 36 Conclusion: Implicit conversion is done here long to short ☑ Veeru.java × 3 [long a = 363636; short x=a; error short x=(short) a; System.out.println(x); 🖁 Problems @ Javadoc 📴 Declaration 🗏 Console 🗵 <terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:03:05 pm - 10:03:10 pm) [pid: 13144] -29580 Conclusion: Implicit conversion is done here

Conclusion: Error! We can't convert.



Conclusion: Explicit conversion is done here.

byte to int

Conclusion: Explicit conversion is done here.

short to int

Conclusion: Explicit conversion is done here.

float to int ☑ Veeru.java × 3 { float a = 22.22f; float x = (int) a; System.out.println(x); } 🖁 Problems @ Javadoc 🚇 Declaration 📮 Console 🗵 <terminated > Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:06:32 pm – 10:06:37 pm) [pid: 10864] 22 **Conclusion:** Implicit conversion is done here.

double to int

```
☑ Veeru.java ×
   2 pun
3 {
4●
            double a = 22.22;
int x= (int) a;
System.out.println(x);
}

    Problems  
    □ Javadoc  
    □ Declaration  
    □ Console ×

<terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:08:04 pm – 10:08:09 pm) [pid: 15932]
22
```

Conclusion: Explicit conversion is done here.

long to int

```
☑ Veeru.java ×
  3 [
       long a = 2222222222L;
int x= (int) a;
System.out.println(x);
}
-2072745074
```

Conclusion: Explicit conversion is done here.

Conclusion: Error!! we can't convert.

char to float ☑ Veeru.java × 2 public class Veeru 3 [] char a = 'v'; float x= a; System.out.println(x); } 🔐 Problems 🏿 Javadoc 💁 Declaration 💻 Console 🗵 <terminated > Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:14:33 pm - 10:14:38 pm) [pid: 6184] 118.0

Conclusion: Implicit conversion is done here.

byte to float

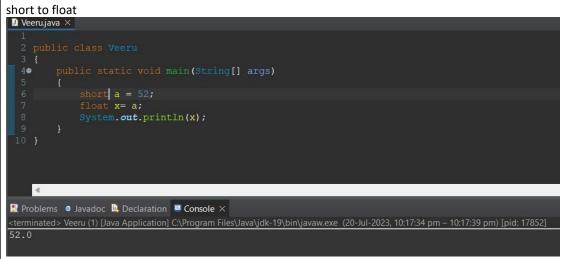
```
☑ Veeru.java ×
           byte a = 52;
float x= a;
System.out.println(x);
🖁 Problems @ Javadoc 🚇 Declaration 📮 Console 🗵
<terminated > Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:16:02 pm - 10:16:07 pm) [pid: 15676] 52.0
```

Conclusion: Implicit conversion is done here.

int to float

```
☑ Veeru.java ×
       int a = 52;
float x= a;
System.out.println(x);
<terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:16:40 pm – 10:16:45 pm) [pid: 14844]
```

Conclusion: Implicit conversion is done here.



Conclusion: Implicit conversion is done here.

double to float

```
Perujava ×

public class Veeru

public static void main(String[] args)

{
    double a = 52;
    float x= (float) a;
    System.out.println(x);
}

Problems ● Javadoc ● Declaration ● Console ×

<terminated > Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:18:17 pm - 10:18:21 pm) [pid: 15356]

52.0
```

Conclusion: Explicit conversion is done here.

long to float

Conclusion: Explicit conversion is done here.

Conclusion: Error! We can't convert.

char to double ☑ Veeru.java × 3 { 4e char a = 'v'; double x= (double) a; System.out.println(x); } <terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:21:45 pm – 10:21:50 pm) [pid: 10336] **Conclusion:** Explicit conversion is done here. byte to double ☑ Veeru.java × byte a = 99; double x= (double) a; System.out.println(x); } <terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:22:31 pm – 10:22:36 pm) [pid: 13000] 99.0 Conclusion: Explicit conversion is done here. int to double ☑ Veeru.java × 40 int a = 99; double x= (double) a; System.out.println(x); 🖁 Problems @ Javadoc 🖳 Declaration 🗏 Console × Conclusion: Explicit conversion is done here.

Conclusion: Implicit conversion is done here.

float to double

Conclusion: Implicit conversion is done here.

long to double

Conclusion: Implicit conversion is done here.

Conclusion: Error! We cant convert.

```
char to long

☑ Veeru.java ×
              char a = 'h';
long x= a;
System.out.println(x);
 🔐 Problems 🏿 Javadoc 🚇 Declaration 📮 Console 🗵
 <terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:27:07 pm – 10:27:12 pm) [pid: 14280]
Conclusion: Implicit conversion is done here.
byte to long
☑ Veeru.java ×
🔐 Problems @ Javadoc 🖳 Declaration 💻 Console 🗵
<terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:28:08 pm – 10:28:15 pm) [pid: 18152]
Conclusion: Implicit conversion is done here.
int to long
☑ Veeru.java ×
  2 public class Veeru
3 []
          int a = 56;
long x= a;
System.out.println(x);
🥋 Problems 🏿 Javadoc 🖳 Declaration 📮 Console 🗵
<terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:28:46 pm – 10:28:51 pm) [pid: 3144]
Conclusion: Implicit conversion is done here.
                                                             19
```



double to long

Conclusion: Explicit conversion is done here.

float to long

```
Peerujava x

1
2 public class Veeru
3 {
4  public static void main(String[] args)
5  {
6     float a = 564;
7     long x= (long) a;
8     System.out.println(x);
9  }
10 }

R Problems    Javadoc    Declaration    Console x
<terminated > Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:31:03 pm - 10:31:07 pm) [pid: 12408]
564
```

Conclusion: Explicit conversion is done here.

Conclusion: Error! We can't convert.

```
char to boolean
👪 Veeru.java 🗴
Conclusion: Error! We cant convert.
byte to boolean
🛂 Veeru.java 🗵
  3 {
 4⊖
      byte a = 6;
boolean x= (boolean) a;
System.out.println(x);
}
Conclusion: Error! We cant convert.
int to boolean
🛃 Veeru.java 🗵
 40
     int a = 6;
boolean x= (boolean) a;
System.out.println(x);
}
   4
<terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:33:26 pm – 10:33:31 pm) [pid: 18628]
Conclusion: Error! We cant convert.
                                            22
```

```
short to boolean
🔬 Veeru.java 🗵
                                short a = 6;
boolean x= (boolean) a;
System.out.println(x);
}

₽ Problems 

A Javadoc 

Declaration 

Console ×

Result

Conclusion: Error! We cant convert.
double to boolean
🛂 Veeru.java 🗡
        40
                                        double a = 0,
boolean x= (boolean) a;
                                                        System.out.println(x);
                   4
  🔐 Problems 🏿 Javadoc 🚇 Declaration 📮 Console 🗵
 <terminated > Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:35:08 pm - 10:35:13 pm) [pid: 10204]
Conclusion: Error! We cant convert.
long to boolean

√ Veeru.java ×

       public static void main(Stri

{
    long a = 6;
    boolean x= (boolean) a;
    System.out.println(x);
}
  🔐 Problems 🏿 Javadoc 🚇 Declaration 📮 Console 🗵
  <terminated> Veeru (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:35:53 pm – 10:35:58 pm) [pid: 1436]
                                                                                                                                                                                                                                      23
```

float to boolean

verujava ×

1
2 public class Veeru
3 verujava ×

1 public static void main(String[] args)
5 {
6 float a = 6;
 boolean x = (boolean) a;
8 system.out.println(x);
9 }

10 }

Problems Javadoc Declaration Console X

<terminated Veeru (1) [Java Application] C\Program Files\Java\jdk-19\bin\javaw.exe (20-Jul-2023, 10:36:25 pm - 10:36:30 pm) [pid: 1396]

Exception in thread "main" java.lang.Error: Unresolved compilation problem:

Cannot cast from float to boolean

at Veeru.main (Veeru.java:7)

Conclusion: Error! We cant convert.

Ec Ncr	✓ EC ✓ Ic	✓ EC ✓ Ic	✓ EC	√ EC	√ EC	Х
Ncr	✓	✓			EC	
	·		√			
✓	Ic	Ic		✓	√	Х
✓			Ic	Ic	Ic	
1	ncr	✓	✓	✓	✓	Х
Ec		Ic	Ic	Ic	Ic	
✓	✓	Ncr	✓	√	✓	Х
EC	Ec		IC	Ic	Ic	
✓	√	✓	Ncr	✓	✓	Х
Ec	Ec	EC		IC	IC	
✓	✓	✓	✓	Ncr	✓	Х
Ec	Ec	EC	EC		IC	
✓	✓	✓	✓	✓	ncr	Х
Ec	Ec	EC	EC	EC		
Х	Х	Х	Х	Х	Х	ncr
	Ec	Ec Ec	Ec Ec EC	Ec Ec EC EC	Ec EC EC EC	Ec EC EC EC

Ncr= no casting required EC=Explicit casting IC= Implicit casting

Automatic Type Conversion (Widening - implicit)

