Convert int to char in java

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Below is a code snipper.

```
int a = 1;
char b = (char) a;
System.out.println(b);
```

1 fav

But what I get is empty output.

```
int a = '1';
char b = (char) a;
System.out.println(b);
```

I will get 1 as my output.

Can somebody explain this? And if I want to convert an int to a char as in the first snippet, what should I do?

java char int

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asked Aug 1 '13 at 3:51

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0 "Convert an int to a char?" Maybe `b = (char)('8' + a)` but only for `8 <= a <= 9`. – johnchen902 Aug 1 '13 at 3:53

0 Decimal value 01 is a non-printing character; it's working properly. – apnetor Sep 12 '16 at 17:29

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12 Answers

active oldest votes

69

```
int a = 1;
char b = (char) a;
System.out.println(b);
```

```
int a = '1';
char b = (char) a;
System.out.println(b);
```

will print out the char with ascii value 49 (one corresponding to '1')

If you want to convert a digit (0-9), you can add 48 to it and cast, or something like `Character.forDigit(a, 10);`

If you want to convert an `int` as in ascii value, you can use `Character.toChars(48)` for example.

share improve this answer edited Aug 1 '13 at 3:57 answered Aug 1 '13 at 3:52

jb314
11.8k ● 11 ● 42 ● 64

2 `System.out.println('b'+3);` how i can get `b3` instead `101` with using println ? any other way instead println? – Unknown Mar 10 '16 at 14:20

0 @Unknown You need to make it a string instead of a char as follows System.out.println("b" + 3); – Haggra Apr 18 '16 at 23:52 ✓

add a comment

29

My answer is similar to jb314's answer but I'll explain a little deeper.

What you should do in this case is:

```
int a = 1;
char b = Character(a + '0');
System.out.println(b);
```

Here, we used '0' because chars are actually represented by ASCII values. '0' is a char and represented by value of 48.

We typed (a + '0') and in order to add these up, Java converted '0' to its ASCII value which is 48 and a is 1 so the sum is 49. Then what we did is:

`(char)(49)`

We casted int to char. ASCII equivalent of 49 is '1'. You can convert any digit to char this way and is smarter and better way than using .toString() method and then substracting the digit by `'0'`(ascii) method.

share improve this answer answered Jun 4 '15 at 21:05

Haggra
887 ● 6 ● 18

add a comment

28

It seems like you are looking for the `Character.forDigit` method:

```
final int RADIX = 10;
int i = 4;
char ch = Character.forDigit(i, RADIX);
System.out.println(ch); // Prints '4'
```

There is also a method that can convert from a char back to an int:

```
int i2 = Character.digit(ch, RADIX);
System.out.println(i2); // Prints '4'
```

Note that by changing the `RADIX` you can also support hexadecimal (radix 16) and any radix up to 36 (or `Character.MAX_RADIX` as it is also known as).

share improve this answer answered Oct 9 '15 at 6:51

Simon Forsberg
19.3k ● 8 ● 44 ● 78

@RogerringRob Define "the int's value". Don't you want it to print the digit 4? Or would you like to print the Ascii value of the int, so that 65 prints `A`? Because my answer here prints the expected behavior for the requirements of this question. See docone.com/DILARR – Simon Forsberg Nov 5 '17 at 21:08

add a comment

9

```
int a = 1;
char b = (char) a;
System.out.println(b);
```

hola, well i went through the same problem but what i did was the following code.

```
int a = 1;
char b = Integer.toString(a).charAt(0);
System.out.println(b);
```

With this you get non-numerical value as a char type. I used charAt() with index 0 because the only value into that String is 'a' and as you know, the position of 'a' into that String start at 0.

Sorry if my english isn't well explained, hope it helps you.

share improve this answer answered Nov 21 '14 at 3:46

Joyce
149 ● 2 ● 2

add a comment

1

Nobody has answered the real "question" here: you ARE converting int to char correctly, in the ASCII table a decimal value of 01 is "start of heading", a non-printing character. Try looking up an ASCII table and converting an int value between 33 and 7E; that will give you characters to look at.

share improve this answer answered Sep 12 '16 at 17:28

apnetor
124 ● 7

add a comment

1

If we are talking about class types - not primitives, the following trick has to be done:

```
Integer someInt;
Character someChar;

someChar = (char)Integer.parseInt(String.valueOf(someInt));
```

share improve this answer answered Dec 16 '17 at 10:06

matus
18 ● 2

0

In java a char is an int. Your first snippet prints out the character corresponding to the value of 1 in the default character encoding scheme (which is probably Unicode). The Unicode character U+0001 is a non-printing character, which is why you don't see any output.

If you want to print out the character '1', you can look up the value of '1' in the encoding scheme you are using. In Unicode this is 49 (the same as ASCII). But this will only work for digits 0-9.

You might be better off using a String rather than a char, and using Java's built-in `toString()` method:

```
int a = 1;
String b = toString(a);
System.out.println(b);
```

This will work whatever your system encoding is, and will work for multi-digit numbers.

share improve this answer edited Aug 1 '13 at 4:53 answered Aug 1 '13 at 4:42

David2573
888 ● 5 ● 11

1 Sorry but a char is not an int, because it is made of a different number of bytes (quick ref: char-int representation - stackoverflow). A char can be represented by a number, you are right, but it is not an integer. – moves Oct 9 '15 at 7:06 ✓

Also, I think you may find the second line should read "String b = Integer.toString(a);" – Fady Apr 5 '18 at 0:59

The char data type is well defined in java.lang.Character as well as its relationship to int and unicode code points and code units. – Ian Oct 25 '17 at 16:32

0

Whenever you type cast integer to char it will return the ascii value of that int (once go through the ascii table for better understanding)

```
int ad=65;
char b=(char)a;

System.out.println(b);//it will return ascii value of 68

//output- D
```

share improve this answer edited Dec 29 '16 at 5:19 answered Dec 29 '16 at 5:02

ajay verma
76 ● 5

0 Sort of... `char` is a UTF-16 code unit. 68 as a UTF-16 code unit is the only code unit needed to represent the Unicode codepoint U+0044. System.out will change the encoding of text to the default encoding (presumably matching the terminal/console the program is running in), println takes a char and attempts to encode it. Since the char is a complete codepoint, it can try. Since U+0044 is a character in almost all character sets, there should be success in getting it to the terminal unguestioned. Nothing to do with ASCII. – Tom Blodget Dec 28 '16 at 19:43

add a comment

0

If you want to print ascii characters based on their ascii code and do not want to go beyond that (like unicode characters), you can define your variable as a byte, and then use the (char) convert. i.e.:

```
public static void main(String[] args) {
    byte b = 65;
    for (byte i=b; i<=b+25; i++) {
        System.out.print((char)i + " ");
    }
```

BTW, the ascii code for the letter 'A' is 65

share improve this answer answered Jun 29 '17 at 14:15

Mon8
5

add a comment

0

```
public class String_Store_In_Array
{
    public static void main(String[] args)
    {
        System.out.println(" Q.37 Can you store string in array of integers. Try it.")
        String str="";
        int[] arr=new int[str.length()];
        char [ch=str.toCharArray();
        char  ch;
        for(int i=0;i<str.length();i++)
        {
            arr[i]=ch[i];
        }
        System.out.println("\n1 have stored it in array by using ASCII value");
        for(int i=0;i<arr.length;i++)
        {

            System.out.print(" "+arr[i]);
        }
        System.out.println("\n2 have stored it in array by using ASCII value to orig
        for(int i=0;i<str.length;i++)
        {
            ch=ch[arr[i]];

            System.out.print(" "+ch);
        }
    }
}
```

share improve this answer edited Feb 3 at 19:46 answered Feb 3 at 15:32

Jules Dupont
1,610 ● 3 ● 10 ● 21

Akash Dhotre
2 ● 1

2 Please provide an explanation instead of just a code dump. – Jules Dupont Feb 3 at 15:38

Write this code only post might answer the question, please add an explanation of why it does so. This will help future users evaluate the answer for their situation. – Tom Brunberg Feb 3 at 20:54

add a comment

0

Make sure the integer value is ASCIII value of an alphabet/character.

If not then make it.

```
for e.g, if int i=1

then add 64 to it so that it becomes 65 = ASCII value of 'A' Then use

char x = (char)i;

print x

// 'A' will be printed
```

share improve this answer edited Feb 20 at 21:34 answered Feb 20 at 19:12

Cryptopat
991 ● 1 ● 12 ● 19

Mayur Gulli
5

add a comment

-2

If you want to convert a character to its corresponding integer, you can do something like this:

```
int a = (int) 'a';
char b = (char) a;
System.out.println(b);
```

This happens because in ASCII there are some items that can not be printed normally.

For example, numbers 97 to 122 are integers corresponding to the lowercase letters a to z.

share improve this answer edited Oct 27 '16 at 0:45 answered Oct 26 '16 at 22:57

Addison
1,159 ● 14 ● 28

Raul Londoño Murillo
15 ● 1

2 sorry, but you just copy pasted older answers. ... – Mac Oct 26 '16 at 23:09

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