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Java Programming Interview

MAY 16, 2018 BY [PANKAJ](#) — [48 COMMENTS](#)

Java Programming Interview Questions are always deciding facto taking a lot of interview for my organisation. So I was in the search questions that are little bit tricky also.

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Here I am providing five of the java programming interview questions I found interesting and need a closer look to understand.

The explanation will be provided after the questions. Test your knowledge of java by trying to provide the answer of the below java interview test questions.

1. Java Programming Interview Question 1

What is the output of the below statements?

```
String s1 = "abc";
String s2 = "abc";
System.out.println("s1 == s2 is:" + s1 == s2);
```

2. Java Programming Interview Question 2

What is the output of the below statements?

```
String s3 = "JournalDev";
int start = 1;
char end = 5;
System.out.println(start + end);
System.out.println(s3.substring(start, end));
```

3. Java Programming Interview Question 3

What is the output of the below statements?

```
HashSet shortSet = new HashSet();
for (short i = 0; i < 100; i++) {
    shortSet.add(i);
    shortSet.remove(i - 1);
}
System.out.println(shortSet.size());
```

4. Java Programming Interview Question 4

What will be the boolean "flag" value to reach the finally block?

```
try {
    if (flag) {
```

```
        while (true) {  
            }  
        } else {  
            System.exit(1);  
        }  
    } finally {  
        System.out.println("In Finally");  
    }  
}
```

5. Java Programming Interview Question 5

What will be the output of the below statements?

```
String str = null;  
String str1="abc";  
System.out.println(str1.equals("abc") | str.equals(null));
```

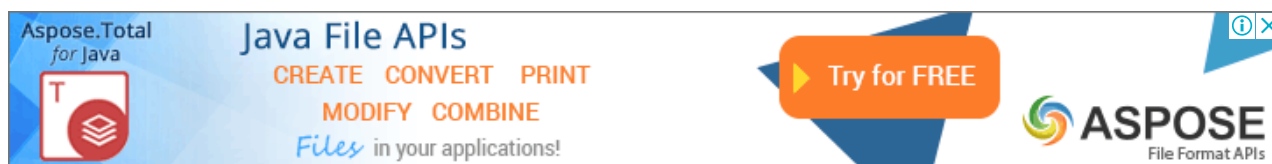
6. Java Programming Interview Question 6

What will be the output of the below statements?

```
String x = "abc";  
String y = "abc";  
x.concat(y);  
System.out.print(x);
```

7. Java Programming Interview Question 7

What will be the output of below program?



```
public class MathTest {  
  
    public void main(String[] args) {  
  
        int x = 10*10-10;  
  
        System.out.println(x);  
    }  
}
```

}

}

8. Java Programming Interview Question 8

What will be the output when below java program is compiled and executed?

```
public class Test {

    public static void main(String[] args) {
        try {
            throw new IOException("Hello");
        } catch (IOException | Exception e) {
            System.out.println(e.getMessage());
        }
    }
}
```

Java Programming Interview Questions Answers

I hope you have looked into above questions before looking at the answers and explanation.

1. Java Programming Interview Question 1 Answer and Explanation

The given statements output will be "false" because in java + operator precedence is more than == operator. So the given expression will be evaluated to "s1 == s2 is:abc" == "abc" i.e false.

2. Java Programming Interview Question 2 Answer and Explanation

The given statements output will be "ourn". First character will be automatically type caste to int. After that since in java first character index is 0, so it will start from 'o' and print till 'n'. Note that in String *substring* function it leaves the end index.

3. Java Programming Interview Question 3 Answer and Explanation

The size of the shortSet will be 100. Java Autoboxing feature has been introduced in JDK 5, so while adding the short to HashSet<Short> it will automatically convert it to Short object. Now "i-1" will be converted to int while evaluation and after that it will autoboxed to Integer object but there are no

Integer object in the HashSet, so it will not remove anything from the HashSet and finally its size will be 100.

4. Java Programming Interview Question 4 Answer and Explanation

The finally block will never be reached here. If flag will be TRUE, it will go into an infinite loop and if its false its exiting the JVM. So finally block will never be reached here.

5. Java Programming Interview Question 5 Answer and Explanation

The given print statement will throw `java.lang.NullPointerException` because while evaluating the OR logical operator it will first evaluate both the literals and since str is null, `.equals()` method will throw exception. Its always advisable to use short circuit logical operators i.e "||" and "&&" which evaluates the literals values from left and since the first literal will return true, it will skip the second literal evaluation.

6. Java Programming Interview Question 6 Answer and Explanation

The statements will print `abc`. Notice that `x.concat(y);` will create a new string but it's not assigned to x, so value of x is not changed.

7. Java Programming Interview Question 7 Answer and Explanation

This is a tricky question, it looks like the test is about the order of execution of the mathematical operators and syntax of main method will get overlooked. It will produce Runtime error because main method is not static, something like below.

```
pankaj:bin pankaj$ java MathTest
Error: Main method is not static in class MathTest, please define the main method
as:
    public static void main(String[] args)
```

8. Java Programming Interview Question 8 Answer and Explanation

No, it won't print Hello. It will be a compile time error as The exception `IOException` is already caught by the alternative Exception.

I hope that the above scenarios will help a bit in understanding some of the java concepts. Please try these java programming interview questions before going to the solution and comment to let me know your score.

□

UPDATE: Head over to some more [java coding interview questions](#).

Recently I have created YouTube videos for tricky programs in java, you should check them out. Also subscribe to my [YouTube Channel](#) to get notified when I add new videos.

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Recently I started creating video tutorials too, so do check out my videos on [Youtube](#).

FILED UNDER: [INTERVIEW QUESTIONS, JAVA](#)

Comments

Yugaank says

JANUARY 4, 2018 AT 3:54 PM

Hi,

Nice questions.

Just wanna add one thing to question 4,

if you do something like-

if (flag=1/0==1) {

it will run the finally block.

[Reply](#)

Nagaraju says

JANUARY 4, 2018 AT 10:24 AM

Thank you very much Pankaj., good Job.

It will really helps lot.

[Reply](#)

Anurag Singh says

SEPTEMBER 18, 2017 AT 2:40 AM

Nice post.

[Reply](#)

Anurag Singh says

JULY 21, 2017 AT 3:53 AM

this example helps me a lot.

thank you for this nice post

[Reply](#)

Java Online Training says

JUNE 6, 2017 AT 2:53 AM

Hi, You have written a very nice article. I acquired good knowledge about Java. Keep it up! I will follow up your for future post.

Could you explain the difference between Array and ArrayList in Java?

[Reply](#)**Manqoba Ledwaba says**

NOVEMBER 15, 2016 AT 4:54 AM

Hi pankaj,
thank you do much for your work pankaj you are a star.
have a great day

[Reply](#)**uttam says**

SEPTEMBER 15, 2016 AT 5:36 AM

awesome tricky questions. post more. love to read all.

[Reply](#)**Aafreen says**

JUNE 20, 2016 AT 2:28 AM

what I learned before is equals compares content and == compares reference. but how s1== s2 will give true.

And operator precedence question is really smart. Thank yu fa sharing this.

[Reply](#)**pooja says**

MARCH 12, 2016 AT 12:06 AM

Thanks Pankaj for such a wonderful site.
I appreciate your hard work and dedication towards Java.
It really helps number of students.
Keep sharing:-)
Good Job!!!

[Reply](#)**Ashutosh says**

FEBRUARY 18, 2016 AT 11:52 AM

score was 2 (:)

[Reply](#)**Eswar says**

OCTOBER 29, 2015 AT 3:52 AM

`String s3="ab"+"c";``System.out.println("3) s1 == s3 is: " + (s1 == s3));`

Here it is true and it is direct concatenation.

can you brief it in detail??

[Reply](#)**ss says**

MARCH 5, 2016 AT 8:45 AM

there is i didnt find s1

[Reply](#)**Naveen says**

MARCH 20, 2015 AT 2:51 PM

Thanks for the questions.

My score was 1/5 ☐

[Reply](#)**Greg says**

JANUARY 23, 2015 AT 3:46 AM

Your answer to question 2 is wrong. You forgot the first System.out.

[Reply](#)

Lakshay says

OCTOBER 12, 2014 AT 9:01 PM

What is the output of the below statements?

1

2

3

```
String s1 = "abc";
```

```
String s2 = "abc";
```

```
System.out.println("s1 == s2 is:" + s1 == s2);
```

This question will return true as they are pointing to the same memory location.

[Reply](#)**Sharma says**

JANUARY 5, 2015 AT 8:48 PM

Hi Lakshay,

This will return true if we put `s1==s2` in parentheses otherwise `+` will take priority over `==`.

[Reply](#)**Steve says**

MAY 31, 2016 AT 12:03 PM

No, as explained as operator precedence puts `+` before `==` it will not evaluate as you believe. What will happen is first concatenation of `"s1==s2 is:"` to `s1` which will first resolve to the string `"s1==s2 is:abc"` then it will evaluate the `==`, thus it will follow:

– `"s1==s2 is:abc" == "abc"`

for for example, think of it like.

```
str1 = "s1==s2" + "abc"; //s1==s2 is: abc"
```

```
str2 = "abc";
```

```
str1 == str2 // false
```

which is obviously falsw

[Reply](#)**SQS says**

OCTOBER 12, 2016 AT 3:03 PM

Nice explanation Steve!

[Reply](#)

krishna says

SEPTEMBER 5, 2014 AT 2:44 AM

Tricky questionsgood work.

if possible try to put some more questions related to Multi threading .

[Reply](#)**Pawan Soni says**

APRIL 16, 2014 AT 12:04 AM

Excellent Set of Questions ☐

[Reply](#)**TIM says**

DECEMBER 11, 2013 AT 6:11 PM

I need more questions on strings like this....

tq

[Reply](#)**Yogesh says**

JULY 26, 2013 AT 11:47 AM

Really nice set of questions. Thanks.

[Reply](#)**Rishika says**

APRIL 26, 2013 AT 6:42 AM

Cool..

[Reply](#)**Rishi Raj says**

JANUARY 23, 2013 AT 10:01 AM

This is a very great share. I must appreciate!

My score is: 2/5.

I got Q.2 and Q.4 right, rest I could not make out.

Thanks a lot for sharing.

[Reply](#)

Pankaj says

JANUARY 31, 2013 AT 10:05 PM

thanks for appreciating it.

[Reply](#)

sreenivas says

JULY 29, 2011 AT 11:07 AM

```
String s1 = "abc";
```

```
String s2 = "abc";
```

```
System.out.println("s1 == s2 is:" + s1 == s2);
```

the output for s1==s2 is false

because if you use == it always meant for reference comparison only

if you use s1.equals(s2) it gives true

because .equals() method is always meant for content comparison

```
String s3 = "JournalDev";
```

```
int start = 1;
```

```
char end = 5;
```

```
System.out.println(start + end);
```

```
System.out.println(s3.substring(start, end));
```

here output is

6

ourn

because

start+end in this start is int and end is char in this it selects max datatype converts all into that type(widowning)

if use string+something then it always converts into string type only.

[Reply](#)

Rishi Raj says

JANUARY 23, 2013 AT 9:55 AM

Hi,

Thanks for explanation, but do you mean "widening" in place of "widowning" as in:

"start+end in this start is int and end is char in this it selects max datatype converts all into that type(widowning)"?

[Reply](#)

dumbAss says

SEPTEMBER 4, 2013 AT 11:57 AM

the output for s1==s2 is not always false use the below code and check if it is

```
String s1 = "abc";
```

```
String s2 = "abc";
```

```
System.out.println(s1 == s2);
```

the output is true

By now you have to agree that you have given wrong information, don't mislead people assuming you know everything. incorrect information is dangerous than no information.

[Reply](#)**Pankaj says**

SEPTEMBER 4, 2013 AT 7:59 PM

Can you point out where I am saying that above will be false always. If you check the Question 1, it's returning false because of operator precedence and it's a trick question. In your example there is no + operator so it will return true because both the string objects are referring to the same object in the string pool.

Please avoid providing comments like this without any base, if I have written something wrong point me out and I would be happy to correct it.

[Reply](#)**Manivasagam.M says**

FEBRUARY 21, 2015 AT 2:10 AM

well said Mr.pankaj :).Your explanation is too good for this question.

[Reply](#)**ARVIND AGGARWAL says**

NOVEMBER 6, 2015 AT 8:05 PM

Dear Pankaj,

First of all, I appreciate your hard work for job-aspirants and professionals into JAVA world. I expect more clarification n explanation from your side on all Questions as I am a regular reader of your website.

As I understand that U should add all string questions in ascending order then nobody will confuse like this.

Please explain ques3 n 5 in more detail....so that it can be understandable.

Regards

Arvind

[Reply](#)

Anurag says

APRIL 10, 2015 AT 12:26 PM

```
String s1 = "abc";
```

```
String s2 = "abc";
```

```
System.out.println("s1 == s2 is:" + s1 == s2);
```

i wanna explain you in details....

here first happens like "s1==s2 is"+s1 ———-> **"s1==s2 is:abc"**

then happens like "s1==s2 is:abc"==s2 ———->"s1==s2 is:abc"=="abc"

so Answer is false. (it is operator precedence)

[Reply](#)**Raaju says**

NOVEMBER 30, 2015 AT 9:03 PM

the output for s1==s2 is not always false use the below code and check if it is

```
String s1 = "abc";
```

```
String s2 = "abc";
```

what answer explained by Sharma was correct, here one thing he is trying to explaining:the thing is:

case 1:

```
System.out.println(s1 == s2);
```

the output is true

Case 2:

```
System.out.println("some text" +s1 == s2);
```

the output is false. because "+" operator is more precedence than the "==" operator.this case the meaning(+s1 == s2) completely changed.

[Reply](#)**Ankit Jain says**

JUNE 25, 2011 AT 12:21 PM

Thanks for these questions they are really tricky.

I want more questions like these please help me from where I can get them any site or link will be helpful.

Thanks in Advance.

[Reply](#)

oleg says

JUNE 8, 2011 AT 7:38 AM

Test Question 4:

"In Finally" will be reached if flag is null.

Console:

=====

In Finally

Exception in thread "main" java.lang.NullPointerException
at people.oleg.test.Test1.main(Test1.java:51)

=====

```
public class Test1 {  
    public static void main(String[] args)  
    {  
        Boolean flag = null;  
        try {  
            if (flag) {  
                while (true) {  
                }  
            } else {  
                System.exit(1);  
            }  
        } finally {  
            System.out.println("In Finally");  
        }  
    }  
}
```

Exception in thread "main" java.lang.NullPointerException
at people.oleg.test.Test1.main(Test1.java:51)

In Finally

Reply

Pankaj says

JUNE 8, 2011 AT 3:03 PM

I agree that your program will reach to Finally block but there is a huge difference between boolean and Boolean.

As mentioned in the question:

What will be the boolean "flag" value to reach the finally block?

Reply

oleg says

JUNE 15, 2011 AT 12:20 PM

Yes, I agree, there is a difference between "boolean" and "Boolean".

Reply

Vikash Singh says

JUNE 29, 2018 AT 12:47 AM

Keep flag= true and It will go in infinite loop , At some point of time JVM will throw StackOverflowException then it will go in finally block

Reply

Rishi Raj says

JANUARY 23, 2013 AT 9:59 AM

Hi,

Thanks for sharing "third view". It's really helpful.

Still I want to add my bit to it.

In your example code, you have declare variable flag as a wrapper object:

Boolean flag = null;

Declaring it as a primitive (notice small 'b' in 'boolean'):

boolean flag = null;

the program flow does not reach finally. It only throws exception. See below for code and exception:-

Code:

```
public class FlagFinallyNull {  
    public static void main(String[] args) {  
        boolean flag = null;  
        try{  
            if(flag){  
                while(true){}  
            }  
            else{  
                System.exit(1);  
            }  
        }  
        finally{  
            System.out.println("finally");  
        }  
    }  
}
```


Exception in output:

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

Type mismatch: cannot convert from null to boolean

at FlagFinallyNull.main(FlagFinallyNull.java:4)

[Reply](#)

amar says

JANUARY 27, 2013 AT 4:05 AM

How could you use Boolean flag=null;

did you write the program?

Boolean flag=null; is not a valid statement. as boolean flag requires boolean type variable but its getting null type.

and if u have done it..kindly explain

[Reply](#)

Pankaj says

JANUARY 29, 2013 AT 1:18 AM

It's a valid statement, check below code.

```
Boolean flag = null;
try {
    if (flag) {
        while (true) {
        }
    } else {
        System.exit(1);
    }
} finally {
    System.out.println("In Finally");
}
```

Above code will produce following output.

In Finally

Exception in thread "main" java.lang.NullPointerException
at Test.main(Test.java:19)

[Reply](#)

nuthan says

MARCH 3, 2015 AT 2:27 AM

value of flag needs to be "true"

and within while put a break so that it doesnt go for infinite loop.

```
static Boolean flag = true;
```

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

```
    try {
```

```
        if (flag) {
```

```
            while (true) {
```

```
                break;
```

```
            }
```

```
        } else {
```

```
            System.exit(1);
```

```
        }
```

```
    } finally {
```

```
        System.out.println("In Finally");
```

```
    }
```

```
}
```

try this guys.....

[Reply](#)**Adrian Redgers says**

MAY 27, 2011 AT 10:13 AM

Q1 For me the interesting thing is not operator precedence but string comparison.

So explicitly bracket the == in the last line:

```
System.out.println("s1 == s2 is: " + (s1 == s2));
```

and it will return:

```
s1 == s2 is: true
```

But replace

```
String s2 = "abc";
```

with

```
String s2 = "ab";
```

```
s2 = s2 + "c";
```

and it will return

```
s1 == s2 is: false
```

This is because Java optimizes by giving the strings it knows at compile time the same hash code, but is doesn't know what s2 is at compile time – so the second "abc" string gets a different hash code.

[Reply](#)

Pankaj says

JUNE 8, 2011 AT 3:16 PM

I didn't understand what are you trying to say here. Can you please post a sample program for better understanding?

[Reply](#)**Adrian Redgers says**

JUNE 21, 2011 AT 12:41 PM

```
String s1 = "abc";
String s2 = "abc";
System.out.println("1) s1 == s2 is: " + (s1 == s2));
s2 = "ab";
s2 = s2 + "c";
System.out.println("2) s1 == s2 is: " + (s1 == s2));
```

Output:

- 1) s1 == s2 is: true
- 2) s1 == s2 is: false

[Reply](#)**Pankaj says**

JULY 1, 2011 AT 5:32 AM

Thanks for the code, actually in String direct concatenation, it always create new Strings, so the address are different and hence == returns false in second case.

[Reply](#)**Amol says**

FEBRUARY 9, 2015 AT 10:41 AM

yup that's right but if you want to compare value's then following is for you

```
String a="ab";
String b="abc";
a+="c";
System.out.println(a.equals(b)); //true
System.out.println(a==b); //false
```

Sandeep says

MARCH 29, 2011 AT 8:00 AM

Really confusing for those who don't pay attention to the language syntax and semantics.

[Reply](#)

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