

Shadowing of static functions in Java

In Java, if name of a derived class static function is same as base class static function then the derived class static function shadows (or conceals) the base class static function. For example, the following Java code prints "A.fun()"

```
// file name: Main.java
class A {
    static void fun() {
        System.out.println("A.fun()");
    }
}

class B extends A {
    static void fun() {
        System.out.println("B.fun()");
    }
}

public class Main {
    public static void main(String args[]) {
        A a = new B();
        a.fun(); // prints A.fun()
    }
}
```

If we make both A.fun() and B.fun() as non-static then the above program would print "B.fun()".

Please write comments if you find anything incorrect, or you want to share more information about the topic discussed above.

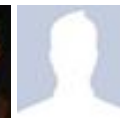
Google™ Custom Search



GeeksforGeeks



53,527 people like GeeksforGeeks.



Interview Experiences

Advanced Data Structures

Dynamic Programming

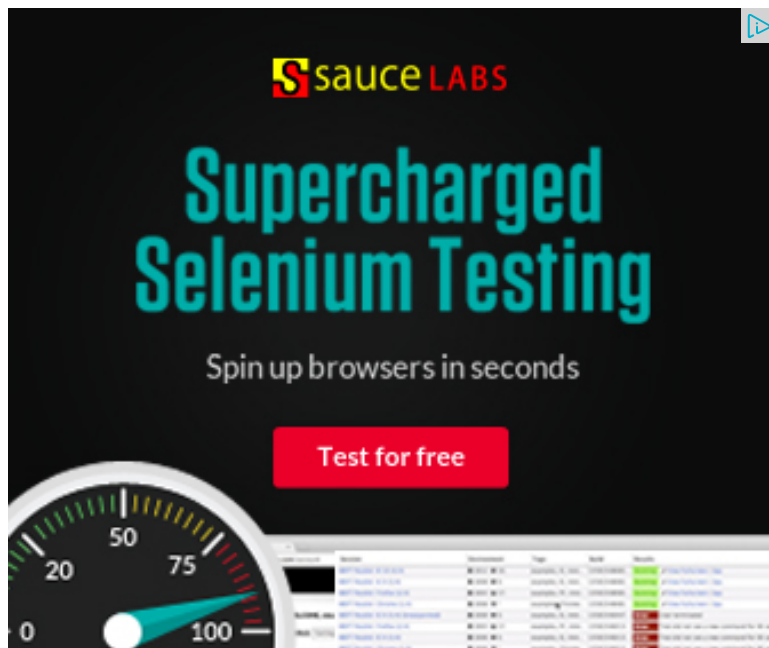
Greedy Algorithms

Backtracking

Pattern Searching

Divide & Conquer

Mathematical Algorithms



Mathematical Algorithms

Recursion

Geometric Algorithms



Popular Posts

All permutations of a given string

Memory Layout of C Programs

Understanding "extern" keyword in C

Median of two sorted arrays

Tree traversal without recursion and without stack!

Structure Member Alignment, Padding and

Data Packing

Intersection point of two Linked Lists

Lowest Common Ancestor in a BST.

Check if a binary tree is BST or not

Sorted Linked List to Balanced BST

Related Topics:

- Inner class in java
- How to compare two arrays in Java?
- Can we override private methods in Java?
- Can we Overload or Override static methods in java ?
- Static class in Java
- Do we need forward declarations in Java?
- Checked vs Unchecked Exceptions in Java
- Bitwise right shift operators in Java



1



Tweet

0



0

Writing code in comment? Please use ideone.com and share the link here.

6 Comments

GeeksforGeeks

Sort by Newest ▾



Join the discussion



Yug Singh • 11 months ago

IF ITS SAYING THAT DERIVED CLASS OVERSHADOWS THE BASE CLASS
PLOYMORPHISM I.E REFERENCING IS BEING DONE, THEN IT SHOULD P

^ | v • Reply • Share ›



Shiclakhan • a year ago

```
package javaBasics.basiC1;
```

```
public class StaticMethodShadowingApplication {
    public static void main(String[] args){
        Base b = new Base();
        b.fun();

        Derive d = new Derive();
        d.fun();

        Base.fun();
        Derive.fun();
    }
}
```

out put:

```
A.fun()
A.fun()
A.fun()
A.fun()
```

HIGH-PERFORMANCE COMPUTING ON A UNIVERSITY BUDGET

The quest to find tailored server capabilities on a shoestring

To conduct successful university research and crunch massive amounts of data, you need the highest-performing hardware on the market. Unfortunately, the price tag of high performance can be daunting for researchers who rely on grants to fund their projects.

There are many off-the-shelf server options available, of course, and your department may even have a standardized, prescribed server.

The best bang for your buck, however, may be to configure a custom server to fit your exact high-performance computing needs.

Unsure of how to get the best performance out of your application? Do you need assistance answering any of these questions?

WHAT NETWORKING INTERFACES ARE NEEDED?

- ☐ 1GbE
- ☐ 10GbE
- ☐ 40GbE
- ☐ InfiniBand
- ☐ Unsure

HOW MANY CPU CORES DO YOU WANT?

- ☐ 4
- ☐ 8
- ☐ 12
- ☐ 16
- ☐ Unsure

HOW MUCH STORAGE DO YOU WANT?


- ☐ 1TB
- ☐ Unsure
- ☒ 1PB

WHAT OPERATING SYSTEM ARE YOU RUNNING?

- ☐ Linux Variant
- ☐ Windows Server
- ☐ VMWare
- ☐ Unsure

Download To See Entire Infographic

SERVERSDIRECT.

 **Mangal** → Shiclakhan • 9 months ago

Output is wrong... It should be

A.fun()

B.fun()

A.fun()

B.fun()

```
/* Paste your code here (You may delete these lines if not write your code here) */
```

^ | v • Reply • Share ›

Recent Comments

Abhi You live US or India?

[Google \(Mountain View\) interview](#) · 35 minutes ago

Aman Hi, Why arent we checking for conditions...

[Write a C program to Delete a Tree.](#) · 1 hour ago

kzs please provide solution for the problem...

[Backtracking | Set 2 \(Rat in a Maze\)](#) · 1 hour ago

Sanjay Agarwal bool

tree::Root_to_leaf_path_given_sum(tree...


[Root to leaf path sum equal to a given number](#) · 1 hour ago

GOPI GOPINATH @admin Highlight this sentence "We can easily...

[Count trailing zeroes in factorial of a number](#) · 1 hour ago

newCoder3006 If the array contains negative numbers also. We...

[Find subarray with given sum](#) · 2 hours ago

AdChoices 

► [Java Array](#)

► [C++ Java](#)

► [Void Java](#)

 **Pavan Dittakavi** • a year ago

Since the output is from the Base class, shouldn't we be mentioning that the b class version instead of the other way around?. I am referring to the following 1

In Java, if name of a derived class static function is same as base class static function shadows (or conceals) the base class static function<<<<<. For prints "A.fun()"

1 ^ | v • Reply • Share ›

 **zyfo2** → Pavan Dittakavi • a year ago


agreed

^ | v • Reply • Share ›

 **kartik** • 3 years ago

This fact is similar to <http://geeksforgeeks.org/?p=84....> In C++, for a function, keywords together. In Java, putting a static keyword before function name mal


^ | v • Reply • Share ›

AdChoices 

▶ [C# Java](#)

▶ [String Java](#)

▶ [Java Interface](#)

AdChoices 

▶ [Inheritance Java](#)

▶ [Java Public](#)

▶ [Java Override](#)

 [Subscribe](#)

 [Add Disqus to your site](#)

@geeksforgeeks, **Some rights reserved**

[Contact Us!](#)

Powered by **WordPress** & **MooTools**, customized by geeksforgeeks team