

Quizzes

Q2Types

Select ALL statements which are TRUE:

- Reference types are instantiated by explicitly using keyword "new";
- Primitive types are instantiated by explicitly using keyword "new";
- ALL Reference types should be instantiated by explicitly using keyword "new";
- ALL Primitive types should be instantiated by explicitly using keyword "new";
- I can instantiate a Reference type WITHOUT explicitly using the keyword "new";
- I can instantiate a Primitive type WITHOUT explicitly using the keyword "new";

FILL IN THE BLANK JUST LIKE IN CODE (spelling and capitalization must be correct) WITH NO EXTRA CHARACTERS OR SPACES.

If i want my class to have a data member created BEFORE PROGRAM EXECUTION BEGINS, I MUST declare that data member with

static

FILL IN THE BLANK JUST LIKE IN CODE (spelling and capitalization must be correct) WITH NO EXTRA CHARACTERS OR SPACES.

If i want my class to have a READ-ONLY data member (CANNOT BE WRITTEN OR CHANGED), I MUST declare that data member with

final

Q3Polymorphism

FILL IN THE BLANK (spell just like when you code) When deriving subclasses (I.e. child class inherits from parent class), what is NOT required but is ALWAYS recommended you use and does not effect code execution.



@Override

Q4Sort

CAREFULLY FILL IN THE BLANKs with no extra characters or spaces AND you MUST SPELL just like when you WRITE CODE in Java.

To give objects instantiated from your class a DEFAULT SORT ORDER, your class must implement the

Comparable

Interface which requires you to implement the

compareTo()

method and you MUST

include () with the method name here.

Comparable<T>, Comparable compareTo()

CAREFULLY FILL IN THE BLANKs with no extra characters or spaces AND you MUST SPELL just like when you WRITE CODE in Java. To sort objects instantiated from your class in an EXPLICIT SORT ORDER, you must

implement the

Comparator

Interface which requires you to implement the

compare()

method

and you MUST include () with the method name here.

Comparator<T>, Comparator compare()

Sort Quiz

FILL IN THE BLANK ONE WORD (spell just like when you code with NO EXTRA SPACES OR CHARACTERS). If you want to sort YOUR WAY (explicit sort order), what MUST you use?



Comparator

FILL IN THE BLANK ONE WORD (spell just like when you code with NO EXTRA SPACES OR CHARACTERS). If you want objects created from YOUR CLASS to have a default sort (natural sort) order, what MUST you use?



Comparable

FILL IN THE BLANK WITH CODE (spell just like when you code with NO EXTRA SPACES OR CHARACTERS). If you want a sequential container best for sorting String objects (insert in constant time), what class constructor MUST you use?

▶

→ `LinkedList<String>()`

FILL IN THE BLANK WITH CODE (spell just like when you code with NO EXTRA SPACES OR CHARACTERS). If you want a sequential container best for random access of String objects by a single thread (access in constant time), what class constructor MUST you use?

▶

FILL IN THE BLANK WITH CODE (spell just like when you code with NO EXTRA SPACES OR CHARACTERS). If you want a sequential container best for random access of String objects by two threads (access in constant time), what class constructor MUST you use?

▶

API

FILL IN THE BLANK (spell just like when you code with NO EXTRA SPACES OR CHARACTERS)

Generally, what do you use to implement an API in Java which will restrict your implementation the very least?

▶

In Java how many fundamentally different ways can you implement a productive API?

1

2

3

4

5

FILL IN THE BLANK (ALL LOWERCASE with NO EXTRA SPACES OR CHARACTERS). When implementing any productive API, what is the relationship between the super class API and the class implementing it (AND DO NOT TYPE THE WORD RELATIONSHIP)?

is-a

ers
inheritance
is-a
isa
generalization

FILL IN THE BLANK (spell just like when you code with NO EXTRA SPACES OR CHARACTERS).

If you write ONLY class Driver, which API can you use to demonstrate polymorphism?

Object

FILL IN THE BLANK (spell just like when you code with PARENTHESIS AND NO EXTRA SPACES OR CHARACTERS).

If you write class Driver, which method can you override to demonstrate polymorphism?

toString()

When implementing any productive API, which Object Oriented principles are required to be used?

Inheritance

Abstraction

Encapsulation

Polymorphism

API

All of these are correct answers

None of these are correct answers

FILL IN THE BLANK (spell just like when you code with NO EXTRA SPACES OR CHARACTERS).

If class Child inherits from class Parent and overrides Parent's whoAmI() method, what is the datatype of the productive (just like in commercial software) API for executing the child version of the method whoAmI()?



When implementing any productive API, which S.O.L.I.D. design principles are required to be used?

- ▶ Liskov Substitution
- ▶ Interface Segregation
- ▶ Open-Closed
- ▶ Single Responsibility
- ▶ Dependency Inversion

Q5Excep

Select ALL TRUE statements about Java Exceptions:

- all Exceptions MUST BE Specified
- ▶ An Error Exception is difficult to anticipate
- all Exceptions require an exception handler
- ▶ A Runtime Exception is difficult to anticipate
- ▶ ALL Checked Exceptions MUST BE CAUGHT

Q6dp

To design a Singleton, FILL IN THE BLANK with a SINGLE LOWERCASE WORD indicating what is required for the design of the class constructor.

▶ private

Q7L

FILL IN THE BLANK (spelling counts ALL LOWERCASE LETTERS WITH NO EXTRA SPACES OR CHARACTERS) What is another name for a Lambda?

▶ closure

FILL IN THE BLANK (spell just like when you code with NO EXTRA SPACES OR CHARACTERS) A Lambda implementation targets a ???

▶ @FunctionalInterface

FILL IN BOTH BLANKs (spelling counts ALL LOWERCASE LETTERS WITH NO EXTRA SPACES OR CHARACTERS) A method

reference is a more compact special purpose Lambda expression.

Qsw

13. FILL IN THE BLANK (SPELL just like when you code WITH NO OTHER ADDITIONAL CHARACTERS OR SPACES)

When you write a Swing GUI program and a user clicks on a button on your form, what is the name for your code which executes in response to that user action?

▶ ActionListener

FILL IN THE BLANK (ALL UPPERCASE) WITH INITIALS ONLY, NOT THE FULL NAME When you write a Swing GUI program and a user clicks on a button on your form, what is the name for the THREAD (INITIALS ONLY) on which your code will execute in response to that user action?

▶ EDT

Qth

Select the BEST selection (or multiple selections): When creating a new Thread, it is best to:

- Use a Runnable
- Inherit from Thread class
- Use executor thread pools
- Use multiple processes
- write single threaded code

// java is strongly typed - type is defined at the start (all data members should have a predefined type)

// jvm creates object when new is found

// objects are ephemeral, garbage collector takes care of deletion of objects

// outer classes, constructors are never static

// compiled language: ex: java, c++ - class -> bytecodes (portable layer - this can be interpreted: in windows, mac, etc) -> loaded onto jvm -> executes

// prototype languages - interpreted language etc: python, javascript

// how does string work on jvm -? String interning?? string pool??

// new is not always used for reference objects, ex: String (it is used with string interning)

// static : before runtime, runtime - when object is instantitated

// design patterns are idioms (best practices - we just use it this way)

// enum is a immutable java class - type class