Final

Due Aug 17 at 11:59pm

Points 60

Questions 60

Available Aug 12 at 12am - Aug 17 at 11:59pm

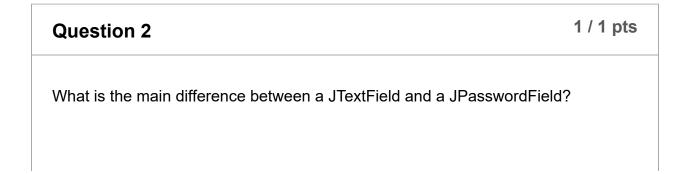
Time Limit 120 Minutes

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	59 minutes	59 out of 60

Score for this quiz: **59** out of 60 Submitted Aug 15 at 11:26am This attempt took 59 minutes.

	Question 1	1 / 1 pts
	What exactly is a JFrame?	
	A light-weight Swing component that holds other Swing components	
	The parent class of all Swing components	
Correct!	A heavy-weight Swing component used as a top-level container for other components	
	Swing component for displaying simple text	



A JPassword field will mask input while a JTextField will not There is no difference A JTextField can accept user input but a JPasswordField is only for displaying information A JPasswordField will not allow you to retrieve the typed in value

In Java, what does it mean to make your code "thread safe"? It means to lock down the ability to create new threads It means ensuring that no exceptions happen during the execution of the thread It means to allow different threads access to the same resources without causing problems It means limiting how many threads can be created

Question 4	1 / 1 pts
Which of the following statements is true regarding threads in Java?	
Contrary to what you might think, a multi-threaded Java application actually of do multiple tasks at the same time	cannot

cases there is no hard limit	
You would only use a thread pool in a small application that does not need very many threads	
Unless you go out of your way in the code to start a different thread, a Java proce will have exactly one thread	SS
	many threads Unless you go out of your way in the code to start a different thread, a Java proce

What is the main difference between an abstract class and an interface?

An interface can have static methods, an abstract class cannot

Only an interface can define methods without a body

Polymorphism can only be achieved using an abstract class

An interface cannot have a constructor or hold state, but an abstract class can

Correct!

Question 6

Which of the following, if present inside an abstract class, will cause it to not compile?

static constructor

inner classes

You Answered	private instance variables	
	abstract methods	

Question 7	1 / 1 pts
Which of these statements regarding the Java language is true?	
It is both statically and dynamically typed	
It is a dynamically typed language	
It is neither statically nor dynamically typed	
It is a statically typed language	

Correct!

Question 8	1 / 1 pts
Which of the following is a valid reason to use generics in Java?	
To ensure type safety during runtime	
To speed up compilation	
To encourage type casting	
To take advantage of code re-use	

Question 9 1 / 1 pts

at is th	e difference between a JDialog and a JFrame?
O The	ere is no functional difference
O A J	Frame is simply a subclass of JDialog with a bit more functionality added
	log will not have maximize and minimize buttons and is not considered an ation window
O A J	Dialog cannot have components added to it like a JFrame can

Correct!

the "this" keyword?
ject
nt it from being
current object
a variable named "this"
j

Question 11 1 / 1 pts

Which of the following is true regarding the EDT?

_	 	_	_	£

Correct!

It is a dedicated thread from which Swing object interactions should take place
 It is fine to run both short and long running tasks from it
 It should rarely be used when working with Swing
 It is a thread pool that can be tapped into to make your Swing app faster

What exactly is an Error? Java does not use them, it only uses exceptions A very serious problem that should not be caught in a try-catch Every exceptions has a field of type Error with info about the exception It is the superclass for all types of exceptions

Which of the following code snippets is the correct way to create a lambda with 1 argument that returns an int? (arg) => 50; (arg) > 50; (arg) => 50;

Question 14	1 / 1 pts
What is the difference between a non-static inne	er class and a static inner class?
A non-static inner class can access the enclosing inner class cannot	class's instance variables, a static
Only a static inner class can reside inside an a	bstract class
A non-static inner class can have its own custom cannot	constructor, a static inner class
A non-static inner class can be extended by a different cannot be	erent class, but a static inner class

	Question 15	1 / 1 pts
	What is the main difference between a JTextField and a JLabel?	
	A JLabel can be clicked but a JTextField can't be clicked	
Correct!	A JTextField is for accepting variable input from the user and a JLabel can't be into	typed
	A JLabel can be added to a JOptionPane but a JTextField can't be	
	A JTextField is considered to be a container component in Swing but a JLabel in Swing but a S	s not

Question 16	1 / 1 pts
Which of the following is proper syntax for catching multiple exceptions catch block?	in one
catch (ClassCastException e1, NullPointerException e2) {}	
catch (ClassCastException,NullPointerException e) {}	
catch (ClassCastException NullPointerException e) {}	
catch (ClassCastException e) {} catch(NullPointerException e) {}	

Correct!

Question 17	1 / 1 pts
Which of the following is a true statement?	
Compiled Java code is not platform independent	
Starting up the JVM does not have any performance costs	
You would use the JDK over the JRE if you intended to compile .java files	6
It is rare for a Java release to be backwards compatible with previous rel	eases

Question 18 1 / 1 pts

Say you have a class called FileProcessor which is abstract and has a single abstract method declared. The class CSVProcessor extends FileProcessor. Given this scenario, which of the following statements is true?

	CSVProcessor does not need to do anything beyond "extends FileProcessor" in order to compile
Correct!	CSVProcessor needs to be marked as abstract or override the abstract method in FileProcessor in order to compile
	The only way it will compile is if CSVProcessor is also marked as abstract
	The only way it will compile is if CSVProcessor overrides the abstract method

_	Question 19	1 / 1 pts
	Which of the following statements is true?	
	A lambda must always return a value within the method implementation	
	A lambda must be created when implementing single method interfaces	
Correct!	A lambda is simply a way of creating concise anonymous inner classes	
	A lambda cannot create another lambda	

Question 20	1 / 1 pts
What is the difference between an "Integer" variable and an "int" var	riable?
They have different min and max values	
"Integer" is nullable	

There is no difference	
"Integer" is deprecated and we should always use "int" going for	vard

Question 21	1 / 1 pts
What is type erasure?	
The ability to pass "Void" as a generic type	
Refers to the fact that all reference types in Java are descended for	rom Object
The process of enforcing type constraints only at compile time	
When generic types are overloaded	

Correct!

Question 22	1 / 1 pts
What exactly is JOptionPane?	
A Swing component for showing drop down values	
A type of dialog that has tabs at the top	
A Swing component for doing radio buttons	
A utility class for creating common dialog formats	

Question 23 1 / 1 pts

my	Button.addActionListener(System.out.println("clicked"));
illy	Button.add/tottonEisterior(Gystern.out.printint(onored)),
my	Button.clicked(e -> System.out.println("clicked"));
my	Button.addActionListener(e -> System.out.println("clicked"));
mv	Button.addActionListener(() -> System.out.println("clicked"));

Correct!

What does the synchronized keyword do when put onto a method? It allows the Java system to guarantee the code in that method is thread safe It is another way of marking a method as static It causes the method to run one thread at a time and other threads get backed up It will run the method in its own thread

	Question 25	1 / 1 pts
	What happens if you try to add a duplicate item to a HashSet?	
	You will receive an exception	
Correct!	The add method will return false	
	It will not compile	

lt	will	add	the	duplicate	item	to	the	set
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Question 26	1 / 1 pts
In computing, what is the difference between a thread and a process?	
They are actually the exact same thing	
A thread is sometimes called a lightweight process but it is not an applic	ation
A single thread manages multiple processes, not the other way around	
A thread can be started from inside Java but a process cannot	

	Question 27	1 / 1 pts
	Under what circumstances would you use a try-with-resources?	
	To catch exceptions that arise from interacting with a particular resource	
Correct!	To avoid needing to close resources in a finally block	
	You shouldn't, ever. It is sinful to do so.	
	To allow unchecked exception handling to compile	

Question 28 1 / 1 pts Which of the following is correct syntax for declaring a generic method?

Question 29	1 / 1 pts
Which of the following statements will not compile?	
<pre>ArrayList<boolean> a = new ArrayList<>();</boolean></pre>	
List <boolean> a = new ArrayList<>;</boolean>	
List <boolean> a = new ArrayList<boolean>();</boolean></boolean>	
<pre>List<boolean> a = new ArrayList<>();</boolean></pre>	

Correct!

Correct!

What happens when a class does not specify its own constructor? It uses the default object constructor that does not have arguments It is the same as having a private constructor The compiler generates a constructor that has a parameter for each instance variable

It will not compile because in order to create an object it needs to have a constructor

Question 31	1 / 1 pts
Which of the following is correct syntax for a lambda with zero argunreturns a boolean?	nents that
(null) -> false	
-> false	
() -> false	
true	

	Question 32	1 / 1 pts
	What does "Thread.sleep(1000);" do?	
	Causes the current thread to die in one second	
Correct!	Causes the current thread to pause for one second	
	Waits one second before starting a new thread	
	Caches a thread with a one second revival time	

Question 33 1 / 1 pts

Which of the following statements is true about Swing? It is platform independent and typically looks the same on different OS's It is a completely dead technology that is not supported anymore It is not still a part of the core JDK in the latest versions Nowadays it is only used to make websites

Correct!

Correct!

What exactly is a JComponent? The parent class of all Swing components A light-weight Swing component that holds other Swing components Swing component for allowing users to initiate an action with a mouse click A heavy-weight Swing component used as a top-level container for other components

Question 35	1 / 1 pts
What exactly is a JLabel?	
A heavy-weight Swing component used as a top-level container for other components	

A light-weight Swing component that holds other Swing components
Swing component for allowing users to initiate an action with a mouse click
Swing component for displaying simple text

Question 36	1 / 1 pts
What exactly is a JPanel?	
Swing component for displaying simple text	
A light-weight Swing component that holds other Swing components	
A heavy-weight Swing component used as a top-level container for other components	
The parent class of all Swing components	

	Question 37	1 / 1 pts
	What is an enum?	
Correct!	A type of variable in Java that has an enumerated set of possible values	
	A type of variable that can be assigned a null value	
	A type of class that can be extended by another class	
	A numeric data type in Java	

Question 38 1 / 1 pts
What exactly is a stateless object in Java?
An object that can cross "state lines" between two threads
An object with no fields and which doesn't reference fields from other classes
An object that can be serialized
An object that cannot be instantiated

What happens if you don't specify an access modifier (private, public, or protected) on a variable? By default variables are marked as public if no access modifier is specified It will not compile Not specifying a modifier is actually its own access level called the "default" modifier It makes it so nothing can access the variable and it becomes more restricted than "private"

Correct!

Question 40 1 / 1 pts

If you add a key/value combination to a Map and that key already exists in the Map, what happens?

Qu	stion 41			1/1
	he value in the map will be convolutiple values	rerted to a List and	the one key will ess	entially have
	The value in the map will be o	overwritten with the	new value being pa	ssed
	An exception will happen beca	ause Map's are imr	nutable	
	It will not compile			

Say you have an interface with one method and a different class makes it into a lambda. What happens if you add another method to the interface? Nothing special happens and the lambda can be created without issue It will compile fine as long as you have the @FunctionalInterface annotation on the interface It will not compile You will simply need to change the format of the lambda to account for the second method

Question 42	1 / 1 pts
Under what circumstances would you use the ExecutorService?	
If you need to execute code in a different thread	

If you ne	ed to kill a particul	ar thread		
	•			
If you ne	ed to manage mul	tiple threads with	certain limits	
•	ŭ	•		

Correct!

Question 43	1 / 1 pts			
What exactly is a checked exception?				
An exception that needs to be caught or rethrown in order to compile				
An exception which cannot be caught				
An exception that extends RuntimeException				
An exception that will immediately cause the program to exit				

What exactly is a JButton? Swing component for allowing users to initiate an action with a mouse click A heavy-weight Swing component used as a top-level container for other components The parent class of all Swing components Swing component for displaying simple text

Which of the following is true regarding Swing objects and concurrency? Many Swing objects are not thread safe An exception will always happen if you try to create a Swing object on the main thread Whether a Swing object is thread safe or not depends on which thread created it Swing objects can safely be interacted with from multiple threads

Correct!

Correct!

Question 46	1 / 1 pts		
Which of the following is proper syntax for declaring a method that throws a checked exception?			
public void doStuff() throws RuntimeException {}			
public void doStuff() {} throws Exception			
public void doStuff() throws Exception {}			
public void doStuff() {} throws RuntimeException			

Question 47

1 / 1 pts

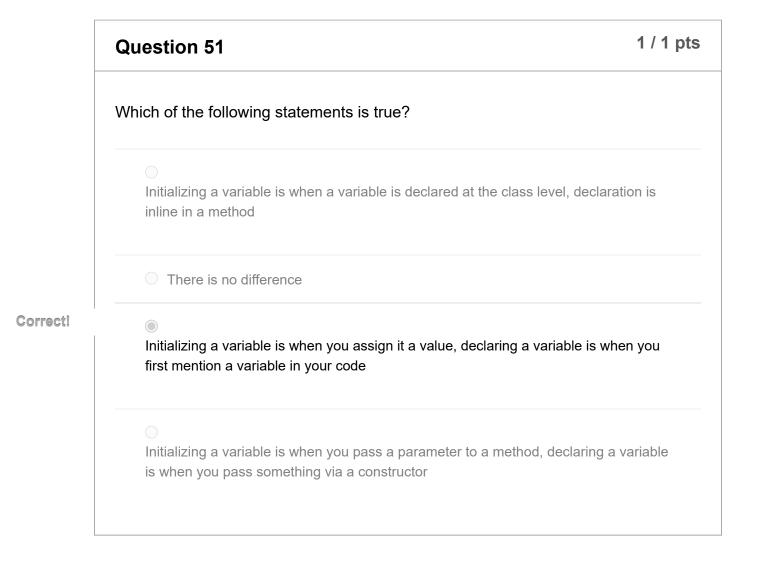
What exactly is an anonymous class?

A class with no name that is declared and instantiated at the same time It is a class that has been marked with the "private" access modifier It is a special type of inner class that is not enclosed by another class It is the same as a static inner class

Question 48	1 / 1 pts
What exactly does SwingUtilities.invokeLater do?	
Starts a new thread every time it is called	
Runs your code on the EDT and hangs until it and other queued tasks are	finished
Runs the given code on the EDT at some future point	
Runs the given code on the current thread but at a future point	

	Question 49	1 / 1 pts
	Which of the following code snippets will correctly start a new thread?	
	new Thread(System.out.println("here")).start();	
Correct!	new Thread(() -> System.out.println("here")).start();	
	new Thread(System.out.println("here"));	
	<pre>new Thread(() -> System.out.println("here"));</pre>	

Question 50	1 / 1 pts			
What is the biggest difference between a Set and an ArrayList?				
Set can have items added to it, ArrayList cannot				
ArrayList allows duplicates but Set does not				
ArrayList implements Collection but Set does not				
Set is immutable, ArrayList is not				



Question 52 1 / 1 pts

ale	exactly is an unchecked exception?
	An exception that does not propagate up
	An exception indicating the program is in an unusable state
	An exception that does not need to be caught or rethrown
	An exception that is closeable in a try-with-resources

Correct!

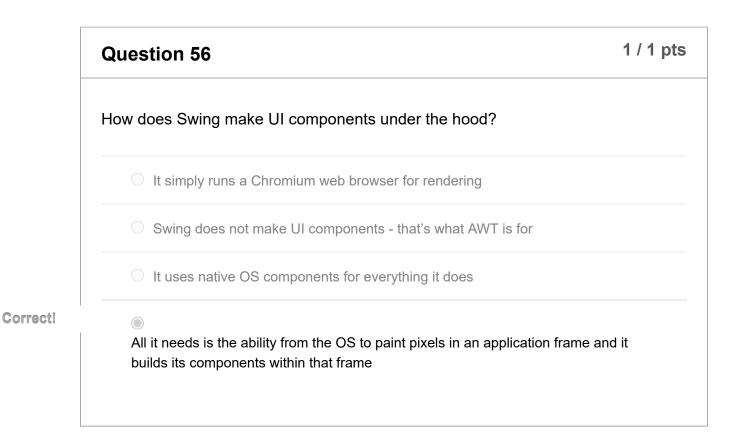
Correct!

Which of the following is a true statement? Everything that implements java.util.Collection can be used in a for-each loop Everything you can do with a java.util.Collection you can do with an array Map implements Collection A "Collection" and a "List" refer to the same thing in Java

Question 54	1 / 1 pts
What does it mean for an object to be immutable in Java?	
An object that can easily be extended	
An object whose internal state remains constant after creation	
An object that can be serialized	
An object that is inherently not safe for multi-threading	

Given the following generic class Test, which of the following is a correct instantiation of Test of type Long? public class Test<T> {} Test<> a = new Test<Long>(); Test<String> a = new Test<>(); Test a = new Test(Long.class);

Correct!



Question 57 1 / 1 pts

<k> public class Bla</k>	}	
O public class <k> Bla</k>	}	
O public <k> class Bla</k>	}	
public class Bla <k> {</k>		

Correct!

Which of the following is the most commonly used implementation of java.util.Map? LinkedHashMap TreeMap Hashtable HashMap

	Question 59	1 / 1 pts
	Under what circumstances would a finally block not execute?	
	If an exception is thrown inside the try block	
	It will always execute 100% of the time	
Correct!	It would only not execute if an abnormal program exit occurred	

If an exception is thrown inside the catch block

What will be the result of creating an abstract method inside of a class that is not marked as abstract? It will not compile It simply forces subclasses to override the abstract method It will compile but when called the method will not execute any code If the method is called is will throw a StackOverflowError

Correct!

Quiz Score: 59 out of 60