Walkthrough of the Java ShutdownOnFailure Code

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Learning Objectives in this Part of the Lesson

• Understand Java’s structured concurrency model
• Recognize the classes used to program Java’s structure concurrency model
• Evaluate the design & performance of various Java concurrency models
• Learn how StructuredTaskScope is implemented
• Focus on ShutdownOnFailure

```java
public class StructuredTaskScope<T> {
    implements AutoCloseable {

    private static final VarHandle FUTURES;

    static {
        try {
            MethodHandles.Lookup l = MethodHandles.lookup();
            FUTURES = l
                .findVarHandle(StructuresTaskScope.class, "futures",
                name: "futures",
                type: Set.class);
        }

        catch (Exception e) {
            throw new InternalError(cause: e);
        }

    }

    private final ThreadFactory factory;
    private final ThreadFlock fLock;
    private final ReentrantLock shutdownLock =
        new ReentrantLock();
}
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See jdk.java.net/java-se-ri/19
End of Walkthrough of Java StructuredTaskScope Code