Try-with-resources and AutoCloseable

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Syntax of Try-with-resources

What is a Resource?

A resource is an object of a type that implements interface java.lang.AutoCloseable

```
public interface AutoCloseable {
    void close() throws Exception;
}
```

Syntax of Try-with-resources

```java
try (InputStream in = new FileInputStream("example.png")) {
    // ...
}
```

Syntax of Try-with-resources

```
try (var in = new FileInputStream("example.png")) {

    // ...

}
```

You can use var to declare a resource variable

Syntax of Try-with-resources

```java
var in = new FileInputStream("example.png");

try (in) {

    // ...

}
```

You can use resources that have already been initialized

The resource variable must be effectively final

Syntax of Try-with-resources

```
var in = new FileInputStream("example.png");
try (in) {
    // ...
}
```

A catch- and/or finally-block is optional

Thanks for following this course

Course Summary

Records

Immutable data objects

Sealed classes and interfaces

Control class hierarchies

Advanced classes and interfaces

Nested and inner types

Generics

Generic and parameterized types

Lambda expressions and method references

Anonymous methods - Functional interfaces

Annotations

Metadata

Optional

Safe alternative to null

Try-with-resources

Resources and exceptions