

Parsing Commands from the Console Using Scanner



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Agenda



Introducing the Console object

- Allows for text-based interactions
- Not all applications have a console!
- Provides a Reader
- And a PrintWriter
- The Reader can be fed to a Scanner
- Analyzing data with a Scanner

Getting and Using the Console Object



The Console object is a singleton

It may not exist!

Two kinds of operations: reading and writing

All the operations are synchronized

Demo



Writing formatted data on the console



Console object **key points**:

- the method **printf()** calls **format()**
- the **console object** is a **singleton**
- calling **writer()** or **reader()** returns a **unique Writer or Reader**
- calling **close()** on this **writer / reader** has **no effect**

Demo



Reading data from the console



Console reader key points:

- calling `reader()` returns the unique Reader
- reading can provide a message
- calling `close()` on this reader has no effect

Scanning Formatted Text



The Scanner is based on regular expressions

It can be opened on any reader

Including the reader from reader()

Demo



Scanning data from a reader



Scanner key points:

- a Scanner works with tokens and find()
- it provides an Iterator or a Stream
- it relies on regular expressions
- it does I/O buffering automatically

Module Wrap Up



What did you learn?

Using the Console and Scanner objects

A Console may not exist

The Console is a singleton

The Reader / Writer are also singleton

**You can get a Scanner from the Console
Reader**

A Scanner work with group and find

Up Next: Pass the Certification!

Course Wrap Up



What did you learn?

The main key points to pass the I/O part of the certification

- File, directories, paths and streams**

Differences between:

- input and output streams**

- bytes and chars streams**

- low level and high level streams**

Use serialization

Interact with the user through the console