# Parsing Commands from the Console Using Scanner



### José Paumard PHD, Java Champion, JavaOne RockStar

@JosePaumard https://github.com/JosePaumard

## 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

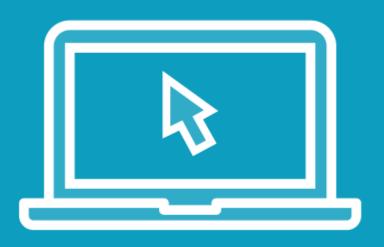


The Console object is a singleton It may not exist!

Two kinds of operations: reading and writing

All the operations are synchronized

## Demo



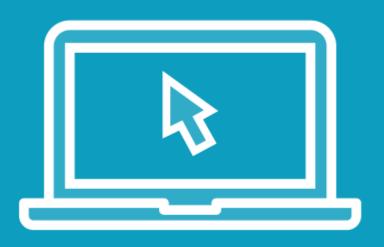
Writing formatted data on the console



#### 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:

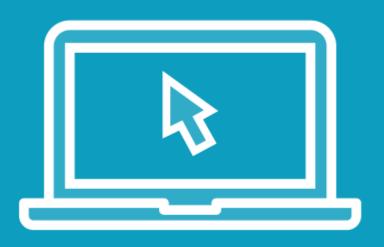
- calling reader() returns the unique Reader
- reading can provide a message
- calling close() on this reader has no effect

# 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