

# Logging and Management in Java SE 17

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What Logging Is and How to Use It



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# Version Check



**This version was created by using:**

- Java 17
- IntelliJ IDEA 2021.3.2 (Ultimate Edition)



# Version Check



**This course is 100% applicable to:**

- Java 11 through Java 17
- Any version of IntelliJ



Not Applicable



**This course is NOT applicable to:**

- Anything before Java 1.4



## Relevant Notes



### A note on frameworks and libraries:

- It's important to use the latest version with the latest security updates
- Certain versions of Apache Log4J contain high risk vulnerabilities



# Overview



- **What is logging?**
- **Why and when do we need logging?**
- **Inspect an example**
- **Carved Rock Fitness user sign up problem**





**Logging is the act of writing information about events in the application to a file, also called the log file.**



Logging happens during the execution of the application.





**Logs show what happened in the application**

- Events
- Exceptions and errors
- Happy path

**Accessible after the execution of the application**



Software developers decide  
what is written to the log.





**Logging that the JVM does**

**Server logs**

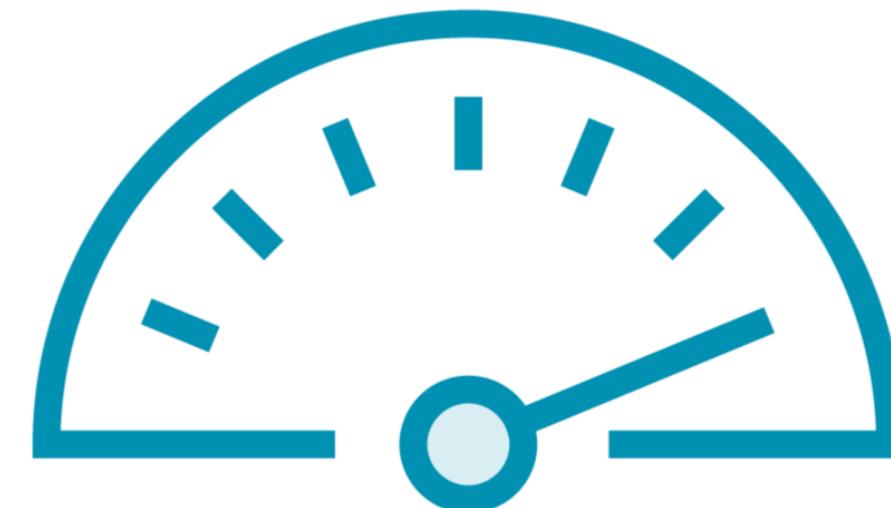
**System logs**



# Why Logging?



Troubleshooting



Performance analytics



Auditing

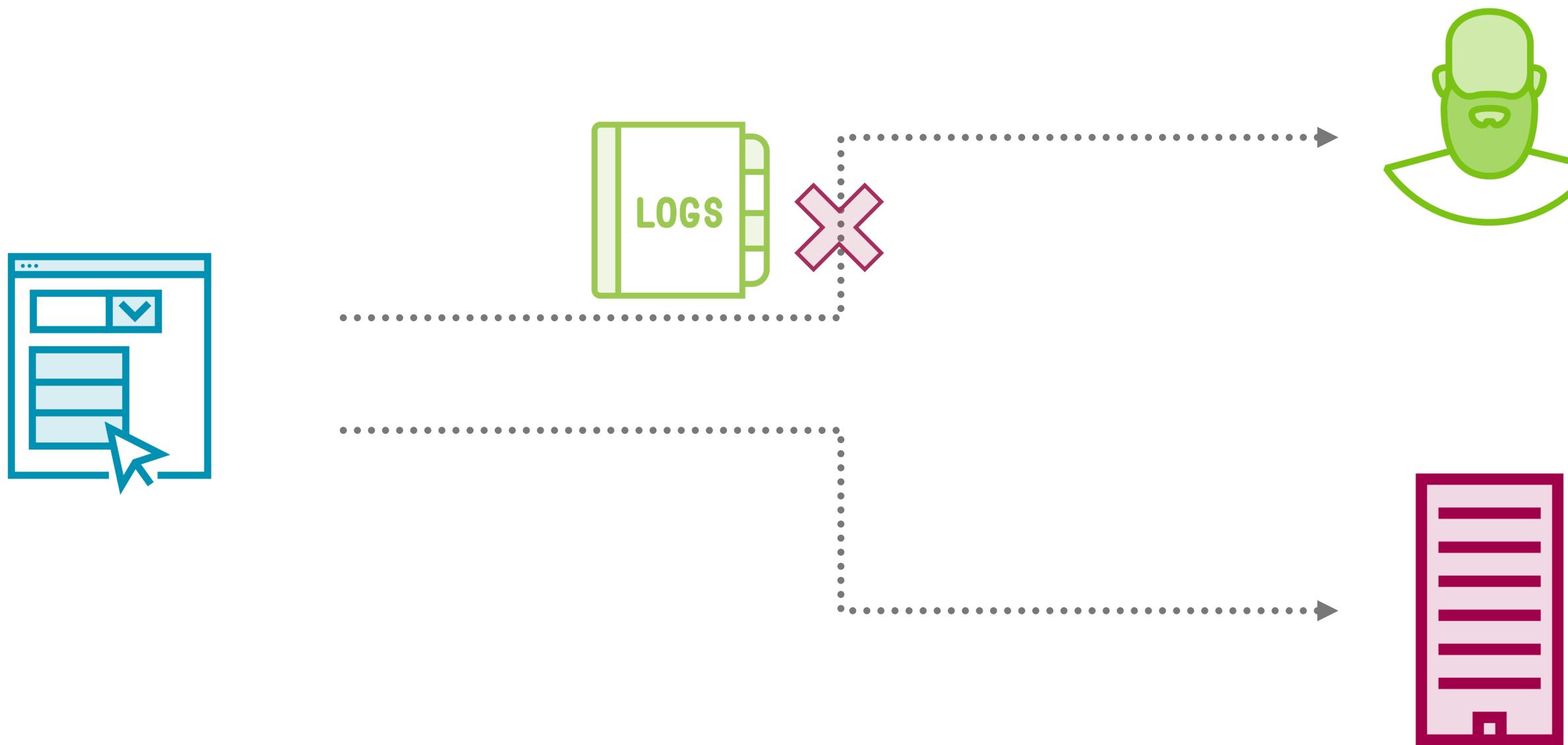


**Information on what is  
happening**

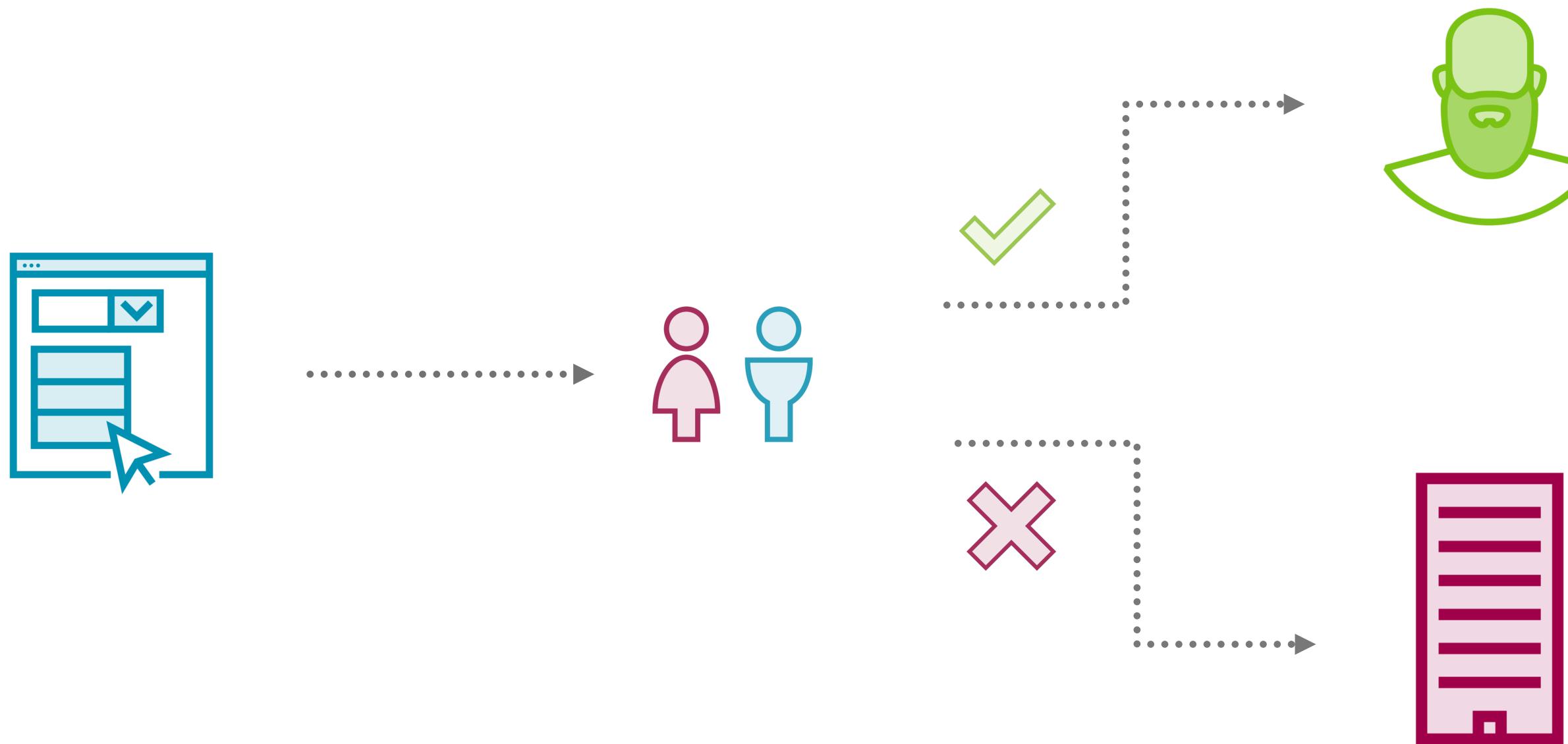
**Necessary for healthy  
applications**



# Example



# Example



# Why Logging?



Troubleshooting



Performance analytics



Auditing





## Who Will Benefit From Logging?

**Software developers**

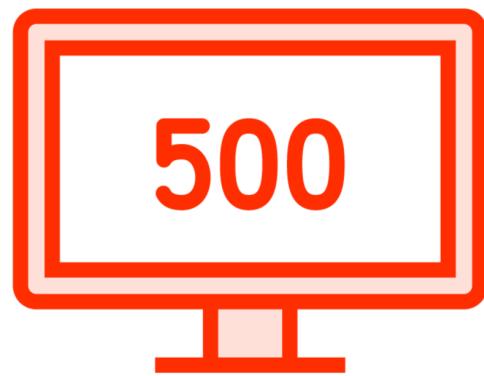
**System administrators**

**Support team**

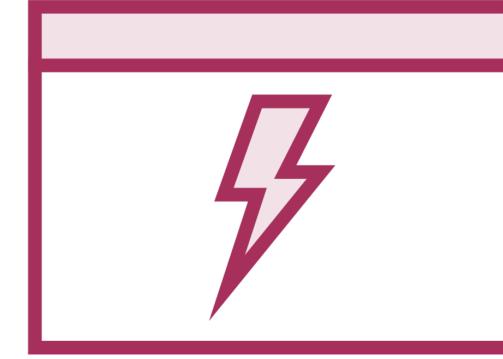
**End users!**



# When to Use Logging



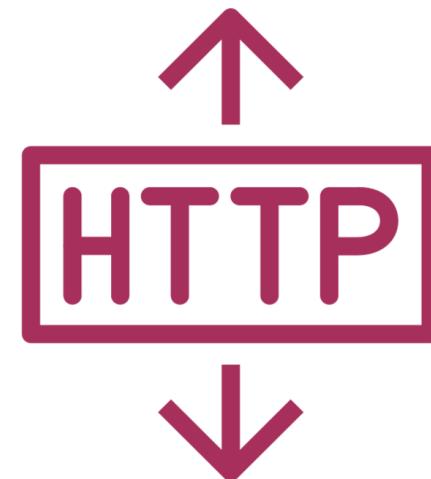
Exceptions and errors



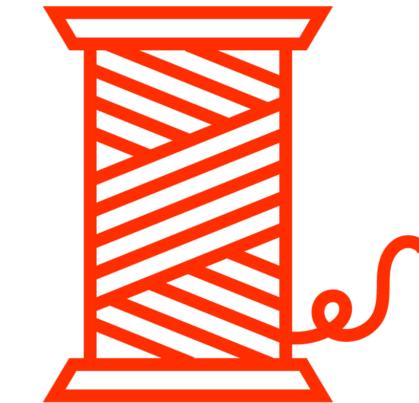
Events and states



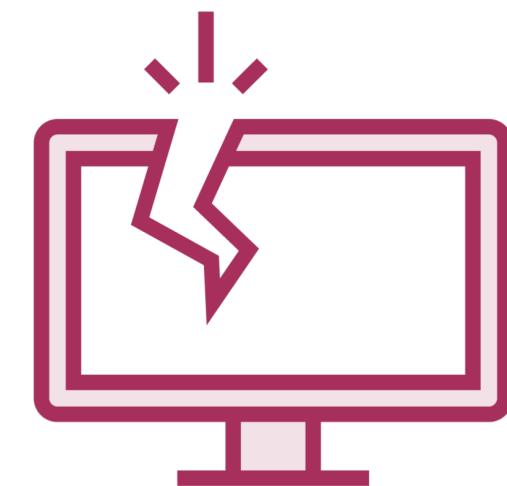
Debug info



HTTP requests



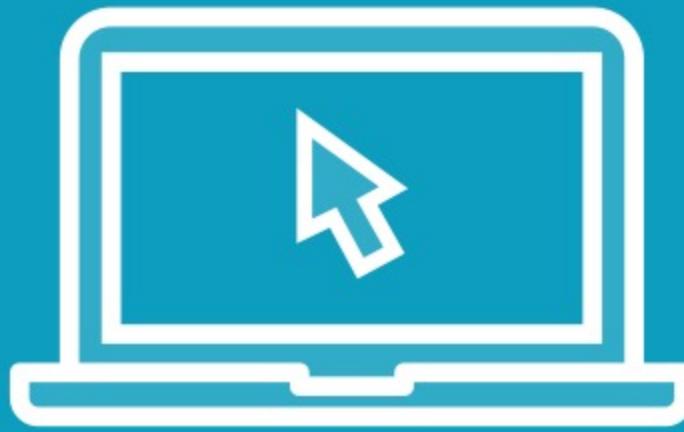
Thread usage



Frontend errors



# Demo



- **Carved Rock Fitness order problem**
- **No error message on the frontend**
- **Users cannot order after sign up**
- **Where to find this demo code**





What can we help you find?

SEARCH

CLOTHING FOOTWEAR EQUIPMENT BAGS & TRAVEL TRAIL REVIEWS

John Doe

Your Cart | log out



## Gear in your cart ...



### Headlight Helmet

\$59.95

Protect your noggin and light your way. The best of both worlds.

< 2 >  
Quantity

**\$119.90**

[Edit Item](#) | [Remove Item](#) | [Move to Wish List](#)



### Ultimate Dreamline Kayak

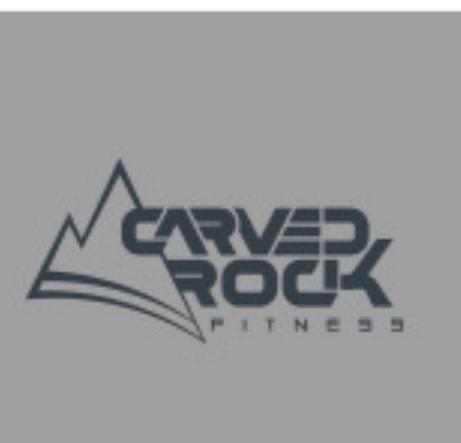
\$649.99

Carbon fiber body with platinum hooks make this the perfect gift for that ...

< 1 >  
Quantity

**\$649.99**

[Edit Item](#) | [Remove Item](#) | [Move to Wish List](#)



### Carved Rock Tee

\$15.00

Protect your noggin and light your way. The best of both worlds.

< XL >  
Size

< 1 >  
Quantity

**\$15.00**

[Edit Item](#) | [Remove Item](#) | [Move to Wish List](#)

## Order Summary

3 Items in cart: \$784.89

Est. Shipping & Handling: \$100.00

Est. Total **\$884.89**

**CHECKOUT**

# Demo



- **Get a logger**
- **Log!**
- **Adding basic logging to our case**



Up Next:  
Adding a Logger and Creating Log Messages

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