

# Software Engineering in the Arts and Humanities

Node.js, conclusion

September 25, 2019

# Agenda

- Admin
- File Hashing
- Express
- Lab 3 Overview
- Project Idea

# **File Hashing**

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- What is hashing?

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- File hashing is a convenient (although *technically* not 100% foolproof) way to verify whether data (e.g., a file) has been seen before.

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- File hashing is a convenient (although *technically* not 100% foolproof) way to verify whether data (e.g., a file) has been seen before.
- Since hashes are deterministic, you will always get the same value if you run the data through the hash function multiple times.

# File Hashing

Fox

cryptographic  
hash  
function

**DFCD 3454 BBEA 788A 751A  
696C 24D9 7009 CA99 2D17**

The red fox  
jumps over  
the blue dog

cryptographic  
hash  
function

**0086 46BB FB7D CBE2 823C  
ACC7 6CD1 90B1 EE6E 3ABC**

The red fox  
jumps over  
the blue dog

cryptographic  
hash  
function

**8FD8 7558 7851 4F32 D1C6  
76B1 79A9 0DA4 AEF6 4819**

The red fox  
jumps over  
the blue dog

cryptographic  
hash  
function

**FCD3 7FDB 5AF2 C6FF 915F  
D401 C0A9 7D9A 46AF FB45**

The red fox  
jumps over  
the blue dog

cryptographic  
hash  
function

**8ACA D682 D588 4C75 4BF4  
1799 7D88 BCF8 92B9 6A6C**

# File Hashing

Fox	cryptographic hash function	DFCD 3454 BBEA 788A 751A 696C 24D9 7009 CA99 2D17
The red fox jumps over the blue dog	cryptographic hash function	0086 46BB FB7D CBE2 823C ACC7 6CD1 90B1 EE6E 3ABC
The red fox jumps ouer the blue dog	cryptographic hash function	8FD8 7558 7851 4F32 D1C6 76B1 79A9 0DA4 AEF6 4819
The red fox jumps oevr the blue dog	cryptographic hash function	FCD3 7FDB 5AF2 C6FF 915F D401 C0A9 7D9A 46AF FB45
The red fox jumps oer the blue dog	cryptographic hash function	8ACA D682 D588 4C75 4BF4 1799 7D88 BCF8 92B9 6A6C



# Web Server

http

# Express

```
npm install express
```