

# JadeIMP

A “slightly” improved version of Jade

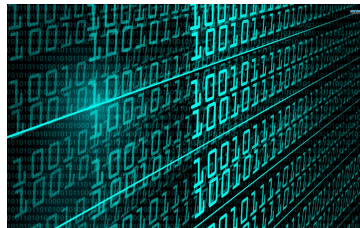
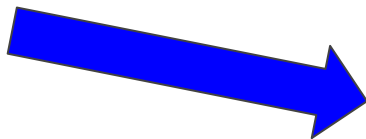
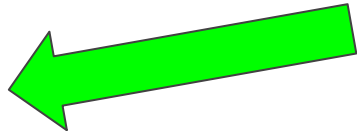
# What is Jade?

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- Template engine for HTML
- Works only on the server side



<http://images.clipartpanda.com/server-clipart-RTGK5rgTL.png>



<http://darshankothari.me/wp-content/uploads/sites/5/2015/12/ewxS2QPvLdyDFv7VjP53u6xW.jpeg>



<http://dannykapp.com/wp-content/uploads/2015/07/html-on-sheet.jpg>

# What is JadeIMP?

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- Also a template engine for HTML
- Has the following functionalities
  - Generates pretty printed HTML code
  - Allows basic programming features including variables, conditionals and loops
  - Allows blocks of HTML code to be stored inside a variable (referred to as "block" in this document)
  - Allows the generated HTML to be manipulated on the client side using "double binding" technique

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**DEMO**

# Implementation Overview

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- **Lexer**
  - Converts the given jadeimp code and returns a lexed tokens
- **Parser**
  - Converts the lexed tokens to create an abstract syntax tree
- **Synthesizer**
  - Double Binding

# Implementation example

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JadeIMP	Lexed tokens	Abstract Syntax Tree
div	- div token	div
some text	- Indent	- Text "Some text"
div	- Text "some text"	
	- Outdent	Div
more text	- Div token	- Text "More text"
	- Indent	
	- Text "more text"	
	- outdent	
	- End of string	

# Testing

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- Integration Testing

- Have a folder of sample jadeimp files and their html equivalent projects in another folder. A tester file will go through and check if the files are equal

- Unit Testing

- We have a separate file that will test each function in the code.
- To test private functions, the makefile will place the tester code in the code file if debug flag is true

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**Thank you for listening**