

import the necessary things

```
 $\langle import\ statements \rangle \equiv$   
var analyzer = require('./analyzer');  
var synthesizer = require('./synthesizer');
```

this is the parse part

```
 $\langle parse \rangle \equiv$   
/*  
    this function will take in the jade input and will return the parseTree  
    also called analyzer  
*/  
function parse(jadeString){  
    return analyzer.parse(jadeString);  
}
```

this is the synthesizer part

```
 $\langle synthesis \rangle \equiv$   
/*  
    this function will take a  
*/  
function synthesis(syntaxTree){  
    return synthesizer.convert(syntaxTree);  
}
```

this is the render part

```
 $\langle render \rangle \equiv$   
/*  
    * function that will return the string, that represents the output  
*/  
function render(jadeString, options){  
    syntaxTree = parse(jadeString);  
    outputHtml = synthesis(syntaxTree);  
    return outputHtml;  
}
```

this is just setting up the api, to ensure which functions other users can use

```

<api>≡
  // make the API functions, it will only have render and compile
  module.exports.parse = parse;
  module.exports.synthesis = synthesis;
  module.exports.render = render; // will take in the jadeimp code and return the html as a
  module.exports.compile = function(jadeimpString){
    return function(){ return render(jadeString, options); }
  }

```

this is the part of the code that will actually render the code

```

<index.nw>≡
  <import statements>
  <render>
  <parse>
  <synthesis>
  <render>
  <api>

```