

# Online Perception Experiments

How to set up a web server on Mac

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# Overall procedure

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Server Administration

Client Operation

Setting up a web server

Creating an account

Uploading a JsPsych and a JQuery

Editing a file with a code editor

Apache Web Server

PHP

Filezilla FTP application

Atom code editor

# Setting up a web server

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## 1. Introduction to an Apache web server

- Apache is a free and open-source cross-platform web server.
- Configuring an Apache web server takes a long time.
- Your Mac comes equipped with an Apache web server software.



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## 2. Introduction to PHP

- Acronym for PHP: Hypertext Preprocessor
- A server-side scripting language designed for Web development
- Can be embedded into HTML
- Is executed on the server but HTML and Javascript are executed on the client
- Your Mac comes equipped with a PHP

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## 3. Checking an Apache version and a PHP version

```
hskwon — ssh phonlab@142.1.108.117 — 80x24
[cfl-d25kn2x4dnml:~ phonlab$ sudo apachectl -v
Server version: Apache/2.4.16 (Unix)
Server built:   Jul 22 2015 21:03:09
[cfl-d25kn2x4dnml:~ phonlab$ sudo php -v
PHP 5.5.38 (cli) (built: Mar 30 2017 12:11:07)
Copyright (c) 1997-2015 The PHP Group
Zend Engine v2.5.0, Copyright (c) 1998-2015 Zend Technologies
[cfl-d25kn2x4dnml:~ phonlab$
```

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## 4. Execute an Apache web server

```
hskwon — -bash — 80x24
[utmuser166-132:~ hskwon$ ps -ef |grep httpd ]
  501   545   526   0 12:33pm ttys000   0:00.01 grep httpd
[utmuser166-132:~ hskwon$ sudo apachectl start ]
[utmuser166-132:~ hskwon$ ps -ef |grep httpd ]
   0    550     1   0 12:33pm ??          0:00.51 /usr/sbin/httpd -D FOREGROUND
  70    551   550   0 12:33pm ??          0:00.00 /usr/sbin/httpd -D FOREGROUND
  501   553   526   0 12:33pm ttys000   0:00.01 grep httpd
[utmuser166-132:~ hskwon$ ]
```

Checking whether an Apache web server is running: `ps -ef |grep httpd`

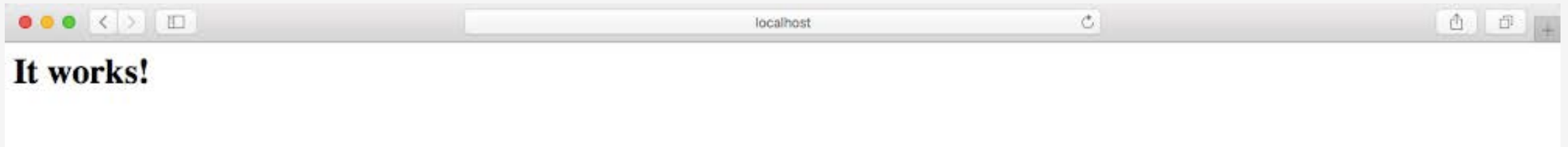
Execute an Apache web server: `sudo apachectl start`

Checking again whether an Apache web server is running: `ps -ef |grep httpd`

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## 5. Checking whether an Apache web server is working



Just type <http://localhost> on URL bar.

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## 6. Modifying configuration files of Apache

- Modifying `/etc/apache2/httpd.conf`: uncomment 3 lines  
`#LoadModule userdir_module libexec/apache2/mod_userdir.so`  
`#LoadModule php5_module libexec/apache2/libphp5.so`  
`#Include /private/etc/apache2/extra/httpd-userdir.conf`  
→  
`LoadModule userdir_module libexec/apache2/mod_userdir.so`  
`LoadModule php5_module libexec/apache2/libphp5.so`  
`Include /private/etc/apache2/extra/httpd-userdir.conf`



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## 6. Modifying configuration files of Apache

- Modifying `/etc/apache2/extra/httpd-userdir.conf`: uncomment `#Include /private/etc/apache2/users/*.conf`  
→  
`Include /private/etc/apache2/users/*.conf`

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## 7. Creating a configuration file of Apache

- Creating `/etc/apache2/users/username.conf` and insert the following lines

```
<Directory "/Users/username/Sites/" >  
    Options Indexes MultiViews  
    AllowOverride None  
    Require all granted  
</Directory>
```

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### 8. Creating a directory, Sites, in home directory

- `mkdir ~/Sites`

### 9. Restart an Apache web server

- `sudo apachectl restart`

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## 10. Creating test.html in /Users/username/Sites

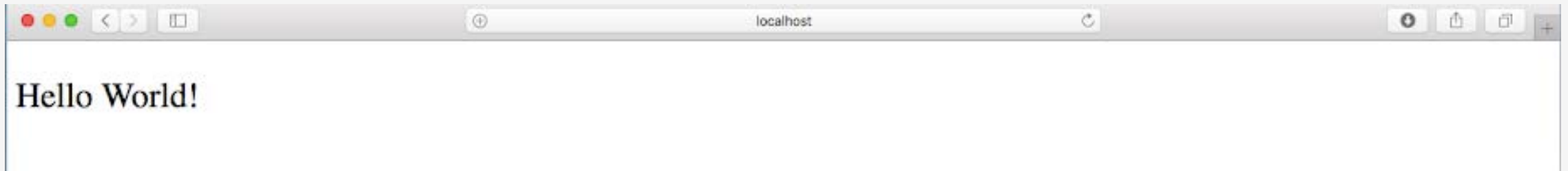
- Insert following lines

```
<!DOCTYPE html>  
<html>  
<body>  
<p style="font-size:200%"> Hello World! </p>  
</body>  
</html>
```

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## 11. Testing a web server of each user



Just type <http://localhost/~username/test.html> on URL bar.