

# Web development in Lua

Introducing **Sailor**, an MVC  
web framework

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The Lua logo is a large blue circle containing a white circle above the word "Lua" in white lowercase letters. The background of the slide features a dark grey background with several concentric dashed white circles and smaller solid circles in various colors (blue, yellow, purple) scattered around, creating a technical or network-like aesthetic.

Lua



**@etiene\_d**



# Sailor!

[sailorproject.org](http://sailorproject.org)

# Google Summer of Code

**LabLua**

# Lua Ladies

[lualadies.org](http://lualadies.org)

# Lua Space

lua.space



# Web dev in Lua

## Sailor

## The future

# Web dev in Lua

Sailor

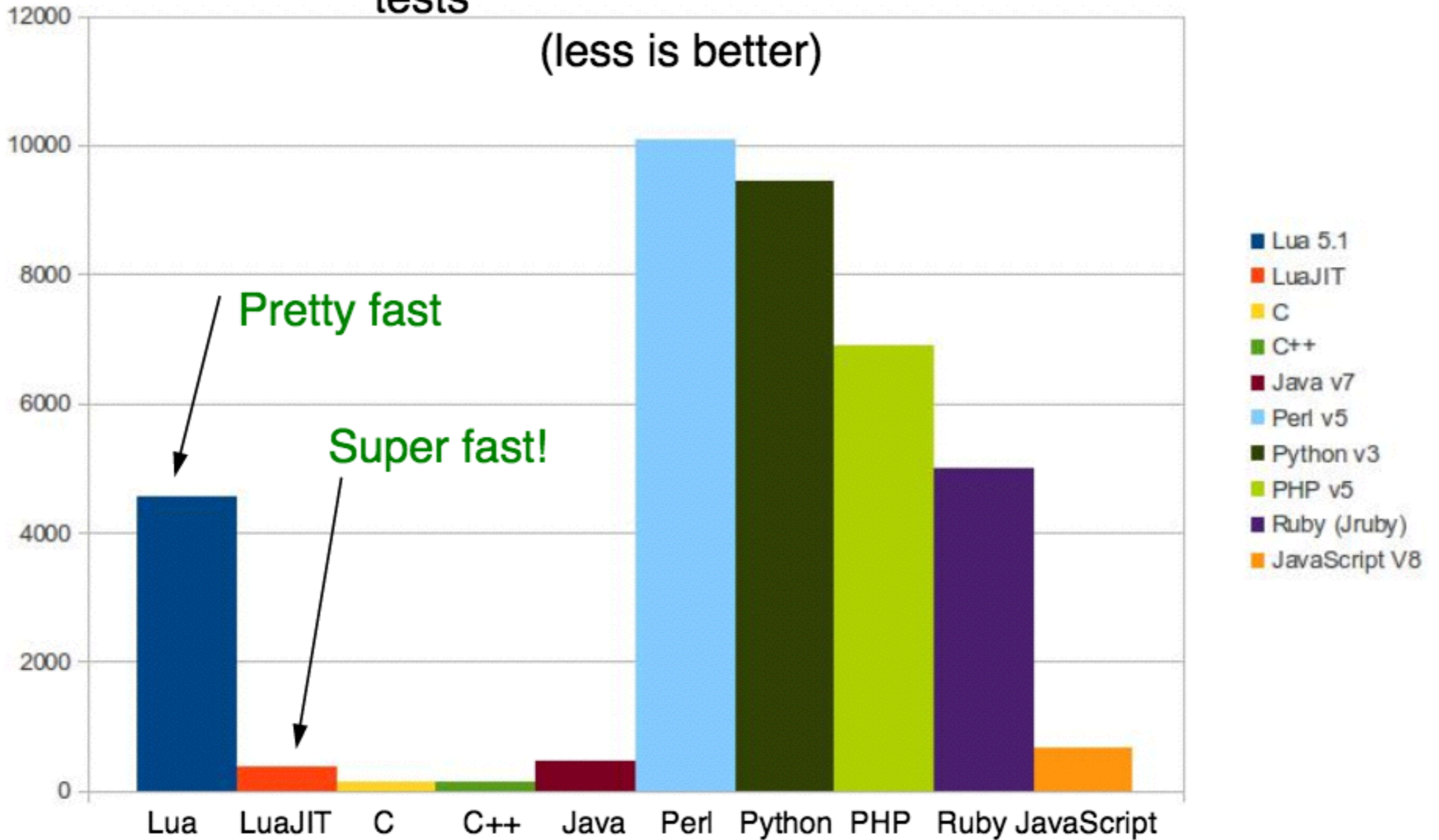
The future





# Average across all speed tests

(less is better)



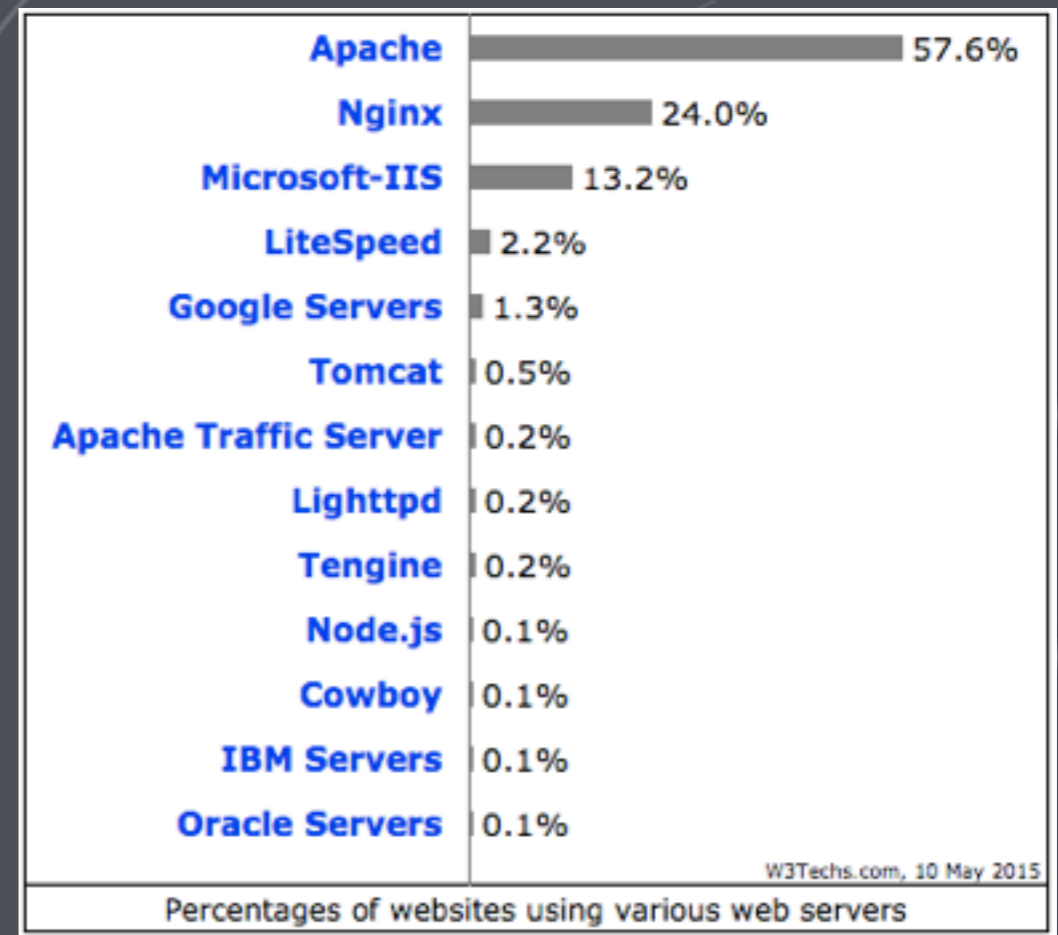
[http://www.humbedooh.com/presentations/ACNA%20-%20mod\\_lua.odp](http://www.humbedooh.com/presentations/ACNA%20-%20mod_lua.odp) Introducing mod\_lua by Daniel Gruno

# Servers

- Apache: mod\_lua
- Nginx: OpenResty

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- Apache: mod\_lua
- Nginx: OpenResty



# Servers

- Apache: mod\_lua
- Nginx: OpenResty
- Xavante
- Others: Lighttpd, Lwan, Pegasus, Mongoose

# Frameworks

## Micro-frameworks

Lapis

## MVC

Orbit

## Event-driven

Luvit

TurboLua

## Others

Ophal, Sputnik, LuaPress, Tir, Vanilla

<http://lua.space/webdev/the-best-lua-web-frameworks>



# Web dev in Lua

## Sailor

### The future

# What exactly is Sailor?

- It's an MVC web framework
- Completely written in Lua
- Compatible with Apache (mod\_lua), Nginx (OpenResty), Xavante, Mongoose, Lighttpd and Lwan
- Compatible with Linux, Windows and Mac
- Compatible with different databases
- MIT License
- v0.5 (Pluto)
- Planning next release to be a 1.0!





# What (else) is cool about Sailor?

- Routing and friendly URLs
- Session, cookies, include, redirect...
- Lua Pages parsing
- Mail sending
- Simple Object Relational-Mapping
- Validation (valua)
- Basic login and authentication modules
- Form generation
- Themes (Bootstrap integration out of the box)
- App generator (Linux and Mac only)
- Model and CRUD generator
- Automated tests

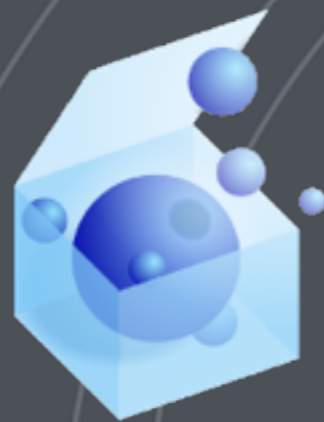
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- Automated tests
  
- Lua at client

# Not so great things

- It's still in early development
- Things are changing fast
- It lacks features
- Documentation

# How to get Sailor!



```
$ luarocks install sailor  
$ sailor create 'My App' /var/www  
$ cd /var/www/my_app  
$ lua start-server.lua
```

## Welcome to your first Sailor application

This is the default view file, you will find it under `/views/main/index.lp`. It is rendered by a controller, you will find it under `/controllers/main.lua`. This layout is provided by [Twitter Bootstrap](#), an open source front-end framework. You can use this layout as is, modify it, or get new layouts and place them under `/layouts/`. Further documentation of Sailor MVC can be found [here](#).

# App structure



`/conf`  
`/controllers`  
`/models`  
`/pub`  
`/runtime`  
`/tests`  
`/themes`  
`/views`

# Example!

```
-- /controllers/site.lua
local site = {}

function site.index(page)
    local msg = "Hello World"
    page:render('index', { msg = msg })
end

function site.notindex(page)
    page.theme = nil
    page:write("I'm different!")
end

return site
```



# Example!

```
<!-- /views/site/index.lp ->
```

```
<p>
```

```
  A message from the server:
```

```
  <?lua page:print(msg) ?>
```

```
  <br/>
```

```
  The message again:
```

```
  <%= msg %> <!-- syntactic sugar: same thing as above ->
```

```
</p>
```

My App Home Dropdown ▾

A message from the server: Hello World  
The message again: Hello World

I'm different!

# Example!

```
<?lua@server -- Code here runs on the server ?>
<?lua -- Same as above ?>
<?lua@client -- Runs at the client ?>
<?lua@both -- Runs at the server and the client ?>

<?lua@both
    another_msg = "Another message"
?>
<?lua page:print(another_msg) ?>
<?lua@client
    window:alert(another_msg)
?>
```

My App

Home

Dropdown ▾

Another message



**The page at localhost:8080 says:**

Another message

OK

# Example!

```
local user = {}
local v = require "valua" -- validation module

user.attributes = {
    { id = "safe" },
    { name = v:new().not_empty().len(6,50) }
}
user.db = {
    key = 'id',
    table = 'users'
}
user.relations = {
    posts = { -- u.posts
        relation = "HAS_MANY", model = "post", attribute = "author_id"
    }
}
return user
```

# Example!

```
local user = {}
local v = require "valua" -- validation module

user.attributes = {
    { id = "safe" },
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    }
}
return user
```

# Example!

```
-- /controllers/site.lua
local site = {}

function site.index(page)
    local User = sailor.model('user')
    local u = User:new()
    u.name = 'Arnold'
    local msg
    if u:save() then
        msg = 'Success'
    else
        msg = table.unpack(u.errors)
    end
    local users = User:find_all()
    page:render('index', { msg = msg, users = users })
end

return site
```



# Web dev in Lua

## Sailor

### The future



# Rails Girls Summer of Code





[bit.ly/luawebdev](https://bit.ly/luawebdev)

Fork me on GitHub

# Sailor! A Lua MVC framework.

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or if you need support

[Google Group / Mail List](#)

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- Support transactions** enhancement  
#40 opened on May 17 by Etiene
- Integrate sailor with other Lua based web servers such as pegasus** enhancement  
#39 opened on May 2 by Etiene
- Setting up a password to use the autogen module** enhancement  
#38 opened on May 2 by Etiene
- Provide user model with app** enhancement  
#37 opened on May 2 by Etiene
- Verify why page:inspect works differently on Apache and Xavante** bug  
#36 opened on May 1 by Etiene

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# Thank you!

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