Build a website from scratch

By Lucian Nitescu

Introduction

I am an ethical hacker.

For who am I working?

IT Security Specialist	
Bug Bounty Hunter and Independent Security Researcher	
Conference Organiser / Community Member / Trainer	
Volunteer	AbuseIPDB Contributor 101,659 IPs Reported
Leader Assistant	

Who are my clients?

Note that:

I do not break stuff in ilegal circumstances.

I break stuff in order to make it secure so bad guys would not do it.

I am not here to teach you how to break into stuff.

I am not supporting any illegal activity.

I use my knowledge in order to improves others security.

I am a specialist.

I am not a bad guy.

We need a website?

Where do see the news?

Where do you buy games?

Where do you find your favorite goods?

Where do you see movies/videos?

Why do we need a website?

How big is the internet?

www:// =

How big is the internet?

What we can see right now?

Why the internet is as big as Earth but we can only see Europe?

72.217.18.78   &&   31.13.90.36

Why the internet is as big as Earth but we can only see Europe?

??

Why the internet is as big as Earth but we can only see Europe?

1. The earth is there but it is in numbers!
2. Humans do not speak numbers and do not remember numbers!
3. Humans got bored naming numbers!
4. Not everything is public and free for all!

How do we find numbers? Numbers?

72.217.18.78   &&   31.13.90.36

How do we find numbers? Numbers?

Domain Name Server

72.217.18.78   &&   31.13.90.36

(Public IP Addresses)

Oscar

How do we find numbers? Numbers?

Domain Name Server

Give me https://google.com! Give me https://facebook.com!

72.217.18.78   &&   31.13.90.36

(Public IP Addresses)

Oscar

How do we find numbers? Numbers?

Domain Name Server

https://google.com

https://facebook.com

72.217.18.78   &&   31.13.90.36

(Public IP Addresses)

Oscar

What do we need for a website?

Server as in
electronics!

Public IP Address
999.999.999.999

We need domain name.
In a public DNS.

What do we need for a website?

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Oscar

We need domain name.
In a public DNS.

HTML

DNS

example.com

Server as in application!
Hey Server! Execute this code!
Now FASTER!

What do we need for a website?

Server as in electronics!

Public IP Address
999.999.999.999

Oscar

We need domain name.
In a public DNS.

DNS

example.com

Server as in application!
Hey Server! Execute this code!
Now FASTER!

HTML
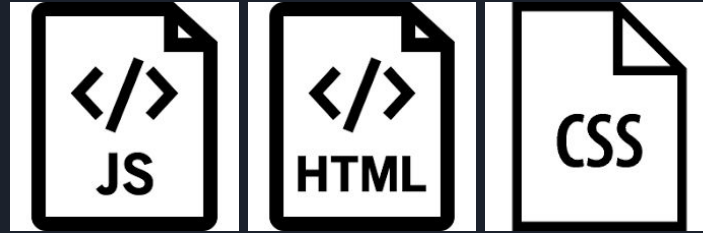
Necessary Code?

Client Side = What the client / visitor can see

Server Side = The magic behind!

Necessary Code?

Client Side = What the client / visitator can see

JS HTML CSS

Bootstrap

Server Side = The magic behind!

PHP ASPX JS
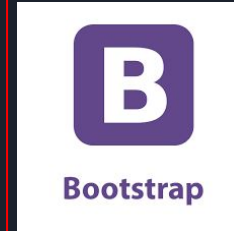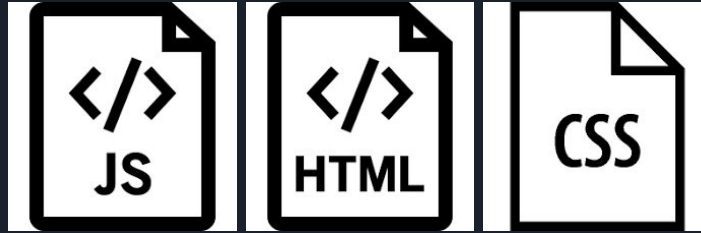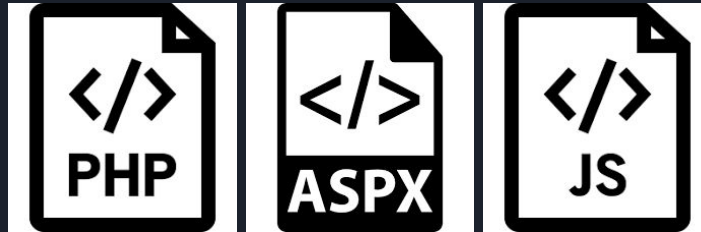
Requirements for our website?

Server as in hardware = Free alternative, Github

Server as in software = Free alternative, Github

DNS = Free alternative, Github

Code = You write the code.

Can I do it at home? = Yes you can! Fail or not. Ask me using the provided contacts!

How do I get everything?

Item	Where?
Public Training Website	scoala-gimnaziala-sfanta-treime.github.io
Contacts	@LucianNitescu / nitesculuci+160@gmail.com / nitesculucian.github.io
Everything	github.com/Scoala-Gimnaziala-Sfanta-Treime

What you need to remember?

scoala-gimnaziala-sfanta-treime.github.io

@LucianNitescu /
nitesculuci+160@gmail.com /
nitesculucian.github.io

What is Bootstrap?

- Framework
- The most popular HTML, CSS, and JS library in the world.
- Wide list of components
  https://getbootstrap.com/docs/4.1/components/
- It helps you build a responsive website

What is responsive?
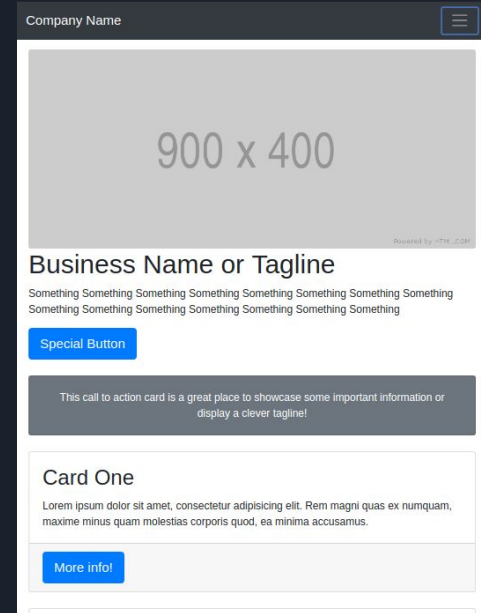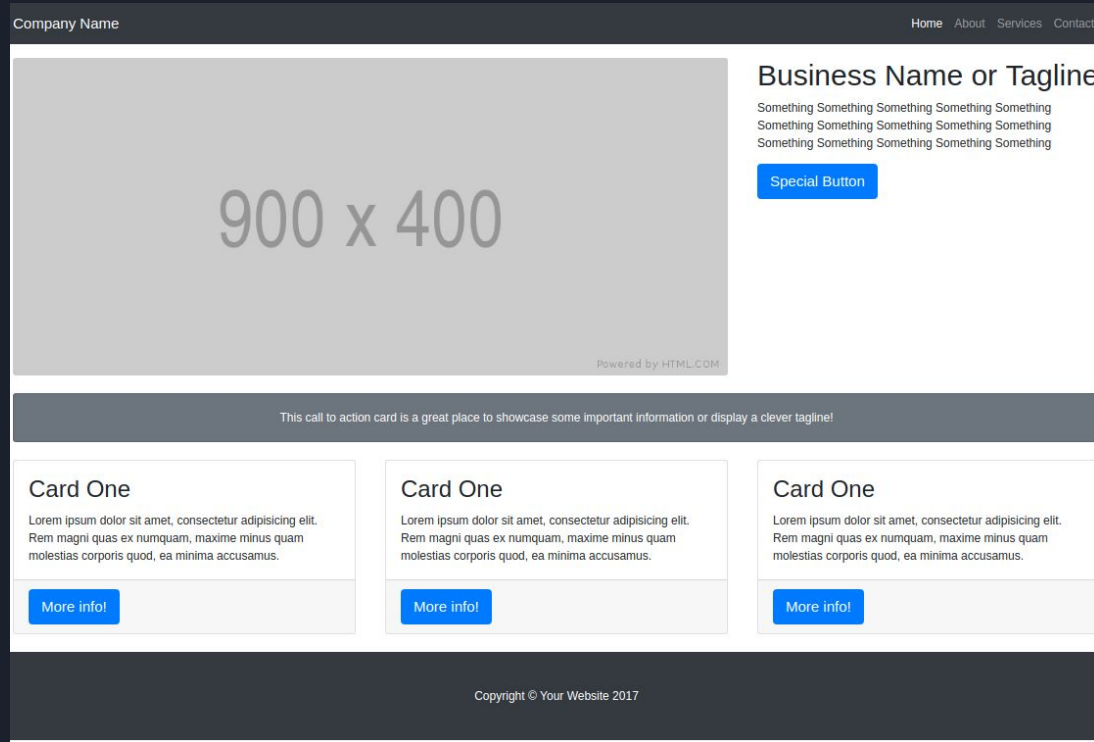
What is CSS, JS, HTML?

- HTML = HyperText Markup Language

- JS = JavaScript

- CSS = Cascading Style Sheets

What is CSS, JS, HTML?

Before we start...

Errors are red

My screen is blue

Someone help me

I've deleted "Sys32"

Ensure that you have the following folders:

Adding the first page!

Stage 1

```
1  <!DOCTYPE html>
2  <html lang="en">
3      <head>
4
5      </head>
6      <body>
7          <footer>
8
9          </footer>
10     </body>
11
12 </html>
```

← → C ⓘ file:///home/nli/Desktop/curs/stage1.html

Stage 2

Your own buissni ×

```html
<head>

  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1,
  shrink-to-fit=no">

  <title>Your own buissnies tittle</title>

  <!-- Bootstrap core CSS -->
  <link href="vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">

  <!-- Custom styles for this template -->
  <link href="css/small-business.css" rel="stylesheet">

</head>
```

Stage 3

```html
</head>
  <body>
      <nav class="navbar navbar-expand-lg navbar-dark bg-dark fixed-top">

      </nav>
      <footer>
```

← → C   ⓘ file:///home/nli/Desktop/curs/stage2.html

← → C   ⓘ file:///home/nli/Desktop/curs/stage3.html

Stage 4


```html
<nav class="navbar navbar-expand-lg navbar-dark bg-dark f:
    <div class="container">
        <a class="navbar-brand" href="#">Company Name</a>
    </div>
</nav>
```

file:///home/nli/Desktop/curs/stage4.html
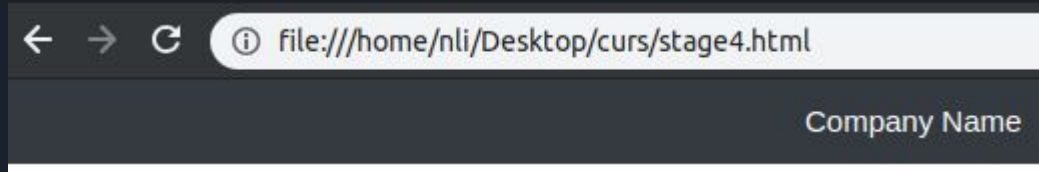
Company Name

Stage 5


```html
<a class="navbar-brand" href="#">Company Name</a>
<button class="navbar-toggler" type="button" data-toggle="
collapse" data-target="#navbarResponsive" aria-controls="
navbarResponsive" aria-expanded="false" aria-label="Toggle
navigation">
    <span class="navbar-toggler-icon"></span>
</button>
```
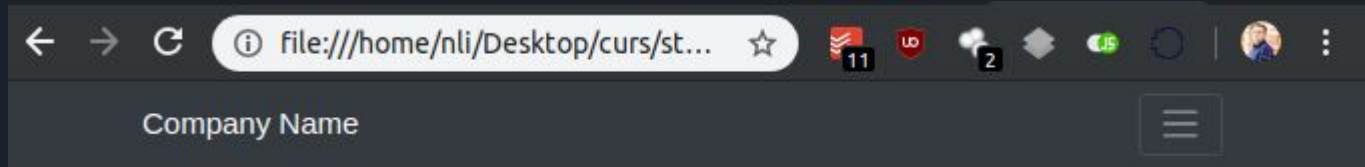
Stage 6

```html
</button>
<div class="collapse navbar-collapse" id="navbarResponsive">
    <ul class="navbar-nav ml-auto">
      <li class="nav-item active">
        <a class="nav-link" href="#">Home</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="#">About</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="#">Services</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="#">Contact</a>
      </li>
    </ul>
</div>
```

Stage 7


```
</nav>
<!-- Page Content -->
<div class="container">
    something
    another something
</div>
<footer>
```


ⓘ file:///home/nli/Desktop/curs/stage7.html#

Company Name

something another something

Stage 8

```html
<!-- Page Content -->
<div class="container">
    <!-- Heading Row -->
    <div class="row my-8">
        <div class="col-lg-8">
            <img class="img-fluid rounded" src="http://placehold.it/900x400">
        </div>
        <div class="col-lg-4">
            something
        </div>
    </div>
</div>
```

Stage 9

```html
<div class="row my-8">
    <div class="col-lg-8">
        <img class="img-fluid rounded" src="http://placehold.it/900x400">
    </div>
    <div class="col-lg-4">
        <h1>Business Name or Tagline</h1>
        <p>Something Something Something Something Something Something
        Something Something Something Something Something Something
        Something Something Something</p>
        <a class="btn btn-primary btn-lg" href="#">Special Button</a>
    </div>
</div>
```
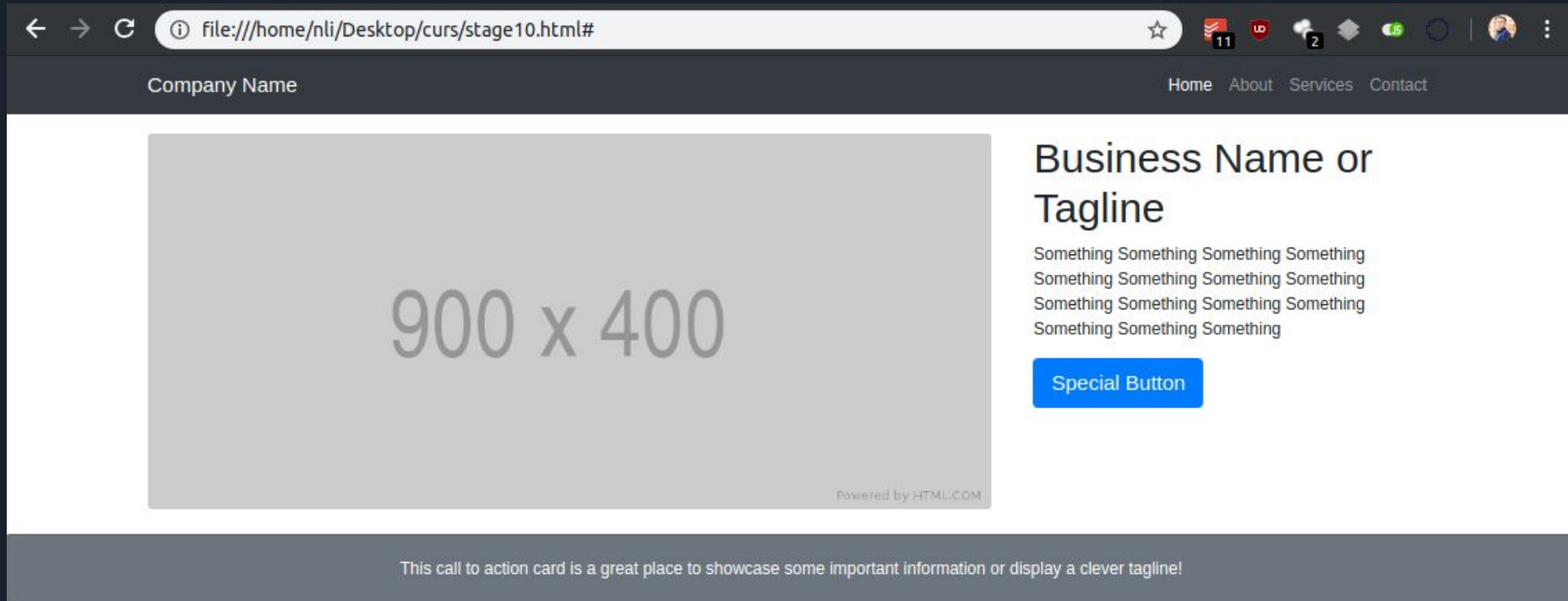
Stage 10

```html
</div>
<!-- Call to Action Well -->
<div class="card text-white bg-secondary my-4 text-center">
    <div class="card-body">
        <p class="text-white m-0">This call to action card is a great place to
        showcase some important information or display a clever tagline!</p>
    </div>
</div>
<footer>
```

Stage 10 (Preview)

Stage 10

```html
<!-- Call to Action Well -->
<div class="card text-white bg-secondary my-4 text-center">
    <div class="card-body">
        <p class="text-white m-0">This call to action card is a great place
        to showcase some important information or display a clever tagline!
        </p>
    </div>
</div>
</div>

<footer>
```

Stage 11

```html
    </div>
    <!-- Content Row -->
    <div class="row">
     <div class="col-md-4 mb-4">
        something 1
     </div>
     <div class="col-md-4 mb-4">
        something 2
     </div>
     <div class="col-md-4 mb-4">
        something 3
     </div>
    </div>
</div>
<footer>
```
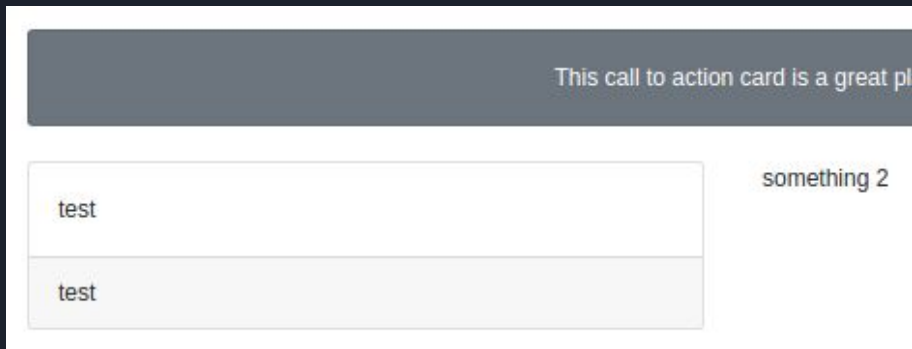
Stage 12

```html
<!-- Content Row -->
<div class="row">
  <div class="col-md-4 mb-4">
    <div class="card h-100">
      <div class="card-body">
        test
      </div>
      <div class="card-footer">
        test
      </div>
    </div>
  </div>
  <div class="col-md-4 mb-4">
    something 2
  </div>
  <div class="col-md-4 mb-4">
    something 3
  </div>
</div>
```

This call to action card is a great pl

something 2

test

test

Stage 13

```
<div class="row">
 <div class="col-md-4 mb-4">
   <div class="card h-100">
    <div class="card-body">
      <h2 class="card-title">Card One</h2>
      <p class="card-text">Lorem ipsum dolor sit amet, consectetur
      adipisicing elit. Rem magni quas ex numquam, maxime minus quam
      molestias corporis quod, ea minima accusamus.</p>
    </div>
    <div class="card-footer">
      test
    </div>
   </div>
 </div>
 <div class="col-md-4 mb-4">
  something 2
 </div>
```

Stage 13 (Preview)

Card One

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Rem magni quas ex numquam, maxime minus quam molestias corporis quod, ea minima accusamus.

test

Stage 14

This call to action card is a great place to showcase some important information or display a clever tagline!

Card One

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Rem magni quas ex numquam, maxime minus quam molestias corporis quod, ea minima accusamus.

More info!

Card One

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Rem magni quas ex numquam, maxime minus quam molestias corporis quod, ea minima accusamus.

More info!

Card One

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Rem magni quas ex numquam, maxime minus quam molestias corporis quod, ea minima accusamus.

More info!

Stage 15

```html
</div>
<footer>
    <div class="container">
        <p class="m-0 text-center text-white">Copyright &copy; Your Website
        2017</p>
    </div>
</footer>
ody>
```

Stage 15 (Fix)

```html
<footer class="py-5 bg-dark">
    <div class="container">
        <p class="m-0 text-center text-white">Copyright &copy; Your Website
        2017</p>
    </div>
</footer>
```

Task 1: Customize your Website

Task 2: Add all the pages!

Task 3: Using the following website, add new components to your site.

https://goo.gl/2pwD59