

Hello!



Intro to Coding



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Welcome to General Assembly!

We empower people to pursue work they **love** through education in business, coding, data, and design.



What You'll Be Saying...



I know the purpose of a web developer and what they actually do day to day.

I have learned and practiced essential coding languages: HTML and CSS.

I can see a pathway to new skills or a career in web development.

Where We're Going

What We'll Cover

- What's web development, anyway?
- What's the difference between the back-end and front-end?
- What are the basics of HTML and CSS?
- Where do I go from here?

What to Keep in Mind

So We're on the Same Page...

- This is an intro class, so we're going to be working from a foundational level.
- You will get a chance to code.
- There will be time at the end for Q&A, but ask questions throughout!



Intro to Coding



What Is Web Development, Anyway?



Is It Magic?



It's Actually More Like...

Editing text files
(coding/programming)



“I am making the internet!”

Fixing problems
(crying)



“Oh no, I broke it again.”

Web Development, Defined

Web development is the creation and management of both websites and web-based applications.



The Front-End

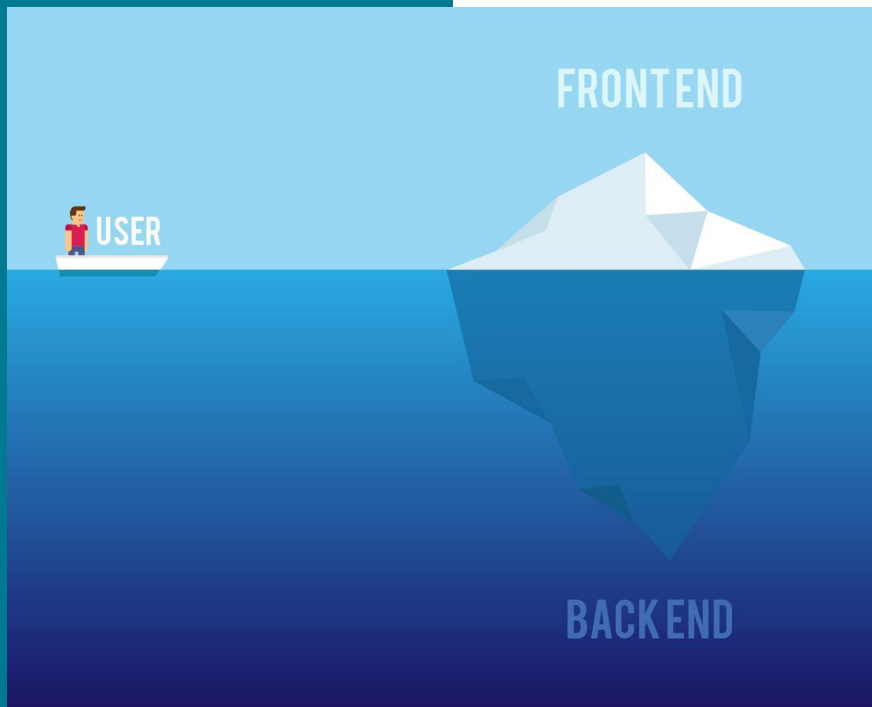
(The look and feel)

Everything that users visually see in their web browser or application.

The Back-End

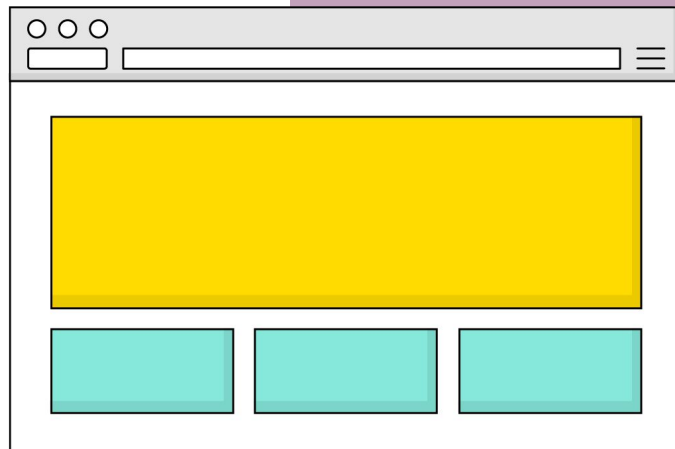
(How it works)

Everything that communicates between the database and the web browser.

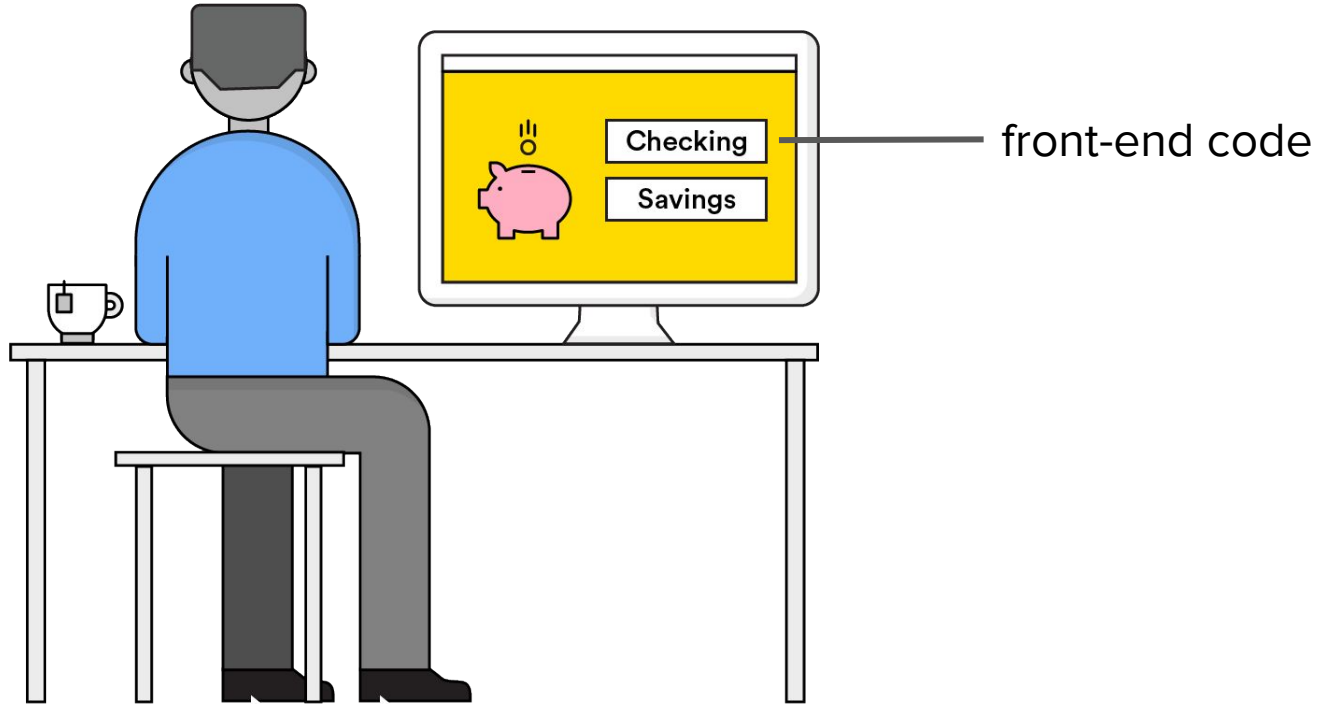


The Front-End: A Closer Look

- Powers the visuals and interactions the user sees.
- The structure and style of the website or application.
- Includes accessibility, performance, cross-browser, and cross-device functionality.



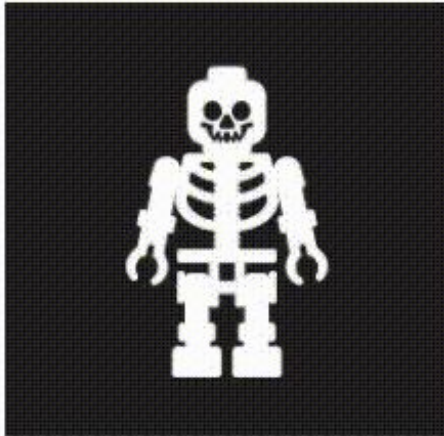
The Front-End: What You See



The Front-End Comprises...

HTML

Structure



CSS

Style/Appearance

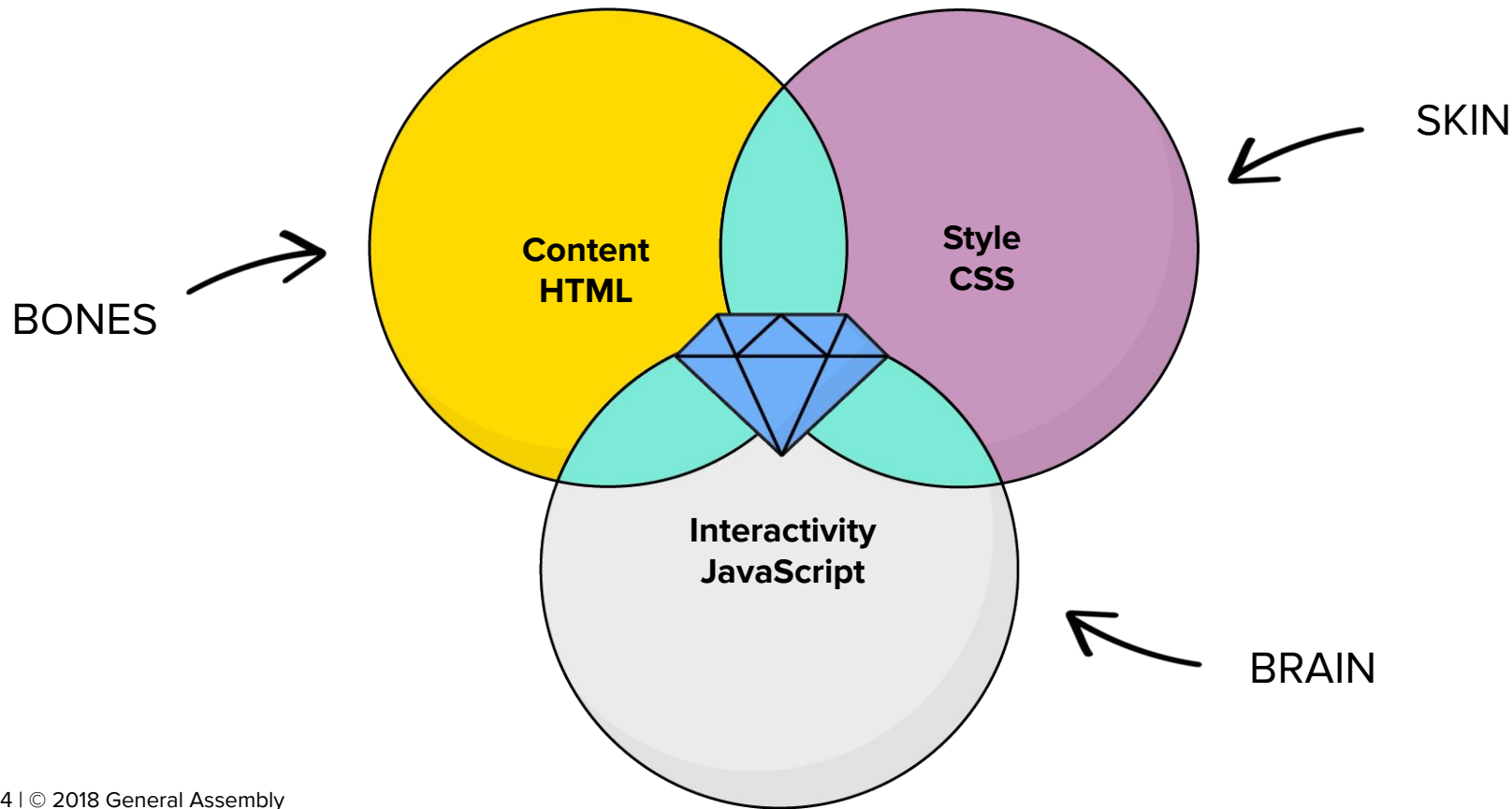


JavaScript

Dynamism/Action

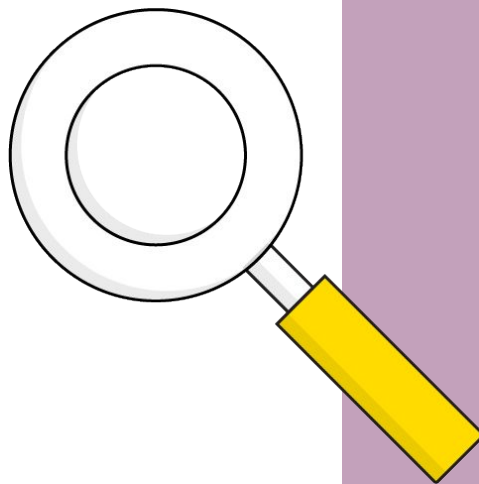


The Front-End Trio

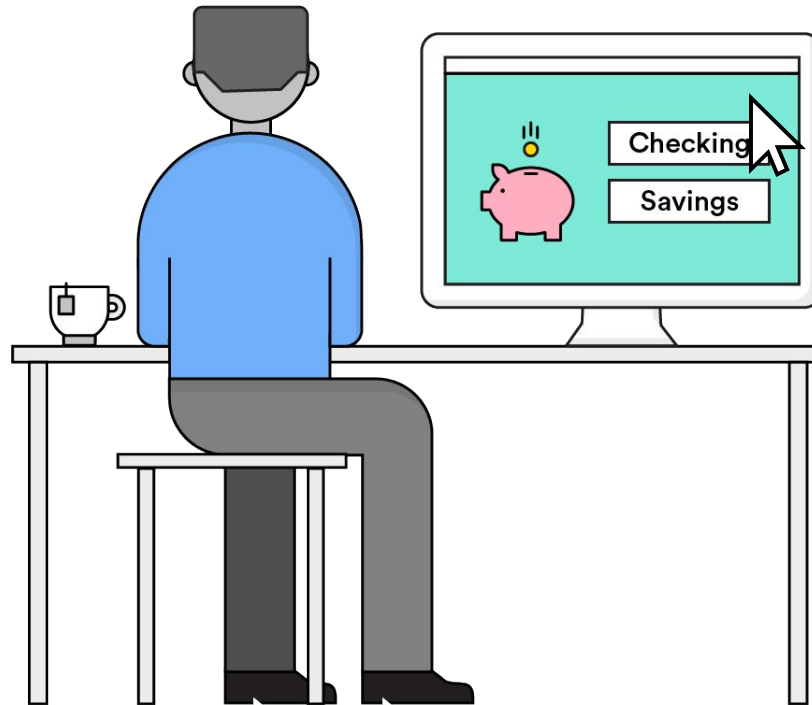


The Back-End: A Closer Look

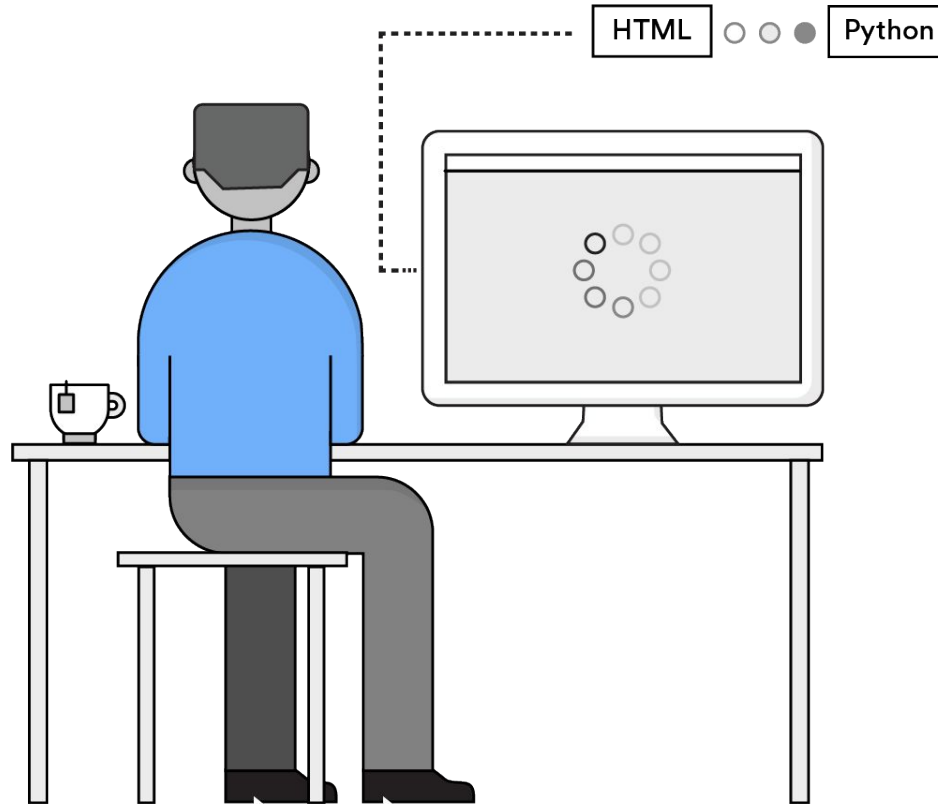
- What goes on behind the scenes.
- Most of the code that exists today is on the back-end and never seen by users.
- Building the actual logic behind the application and the architecture of the system.



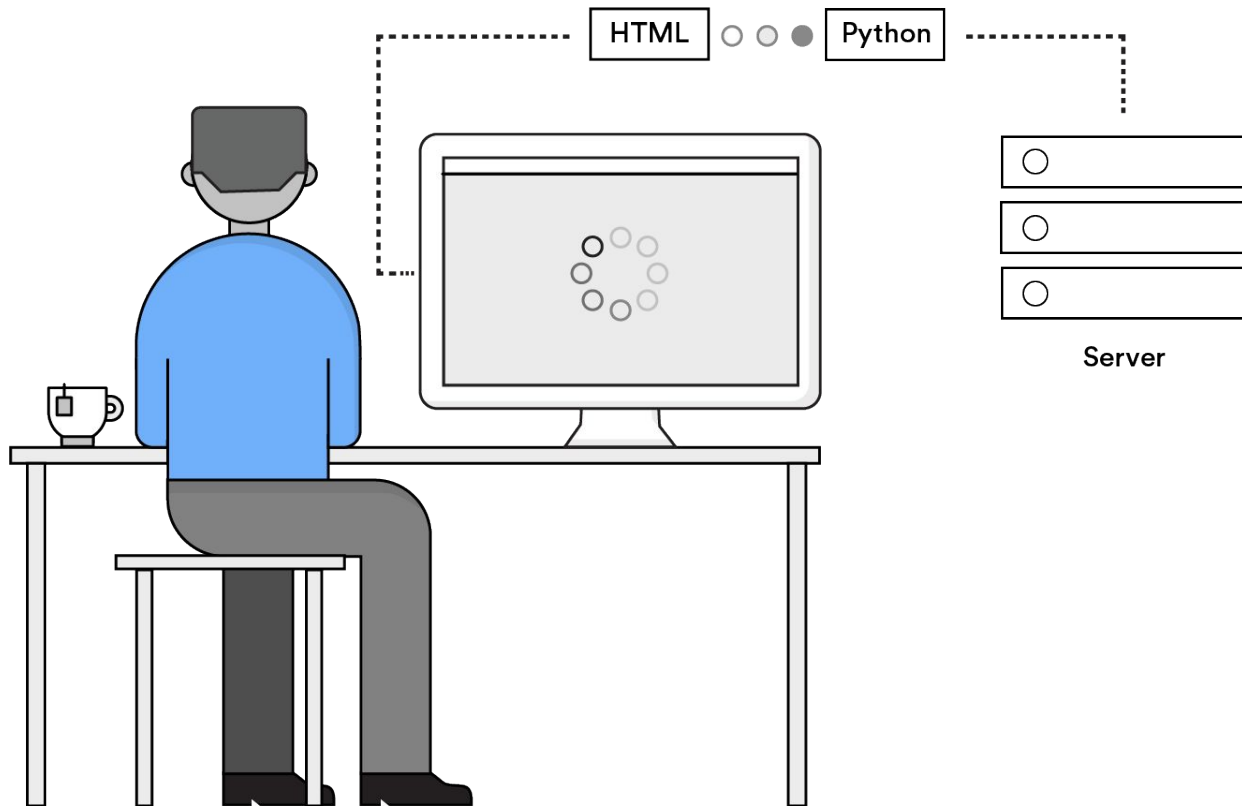
The Back-End: How It Works



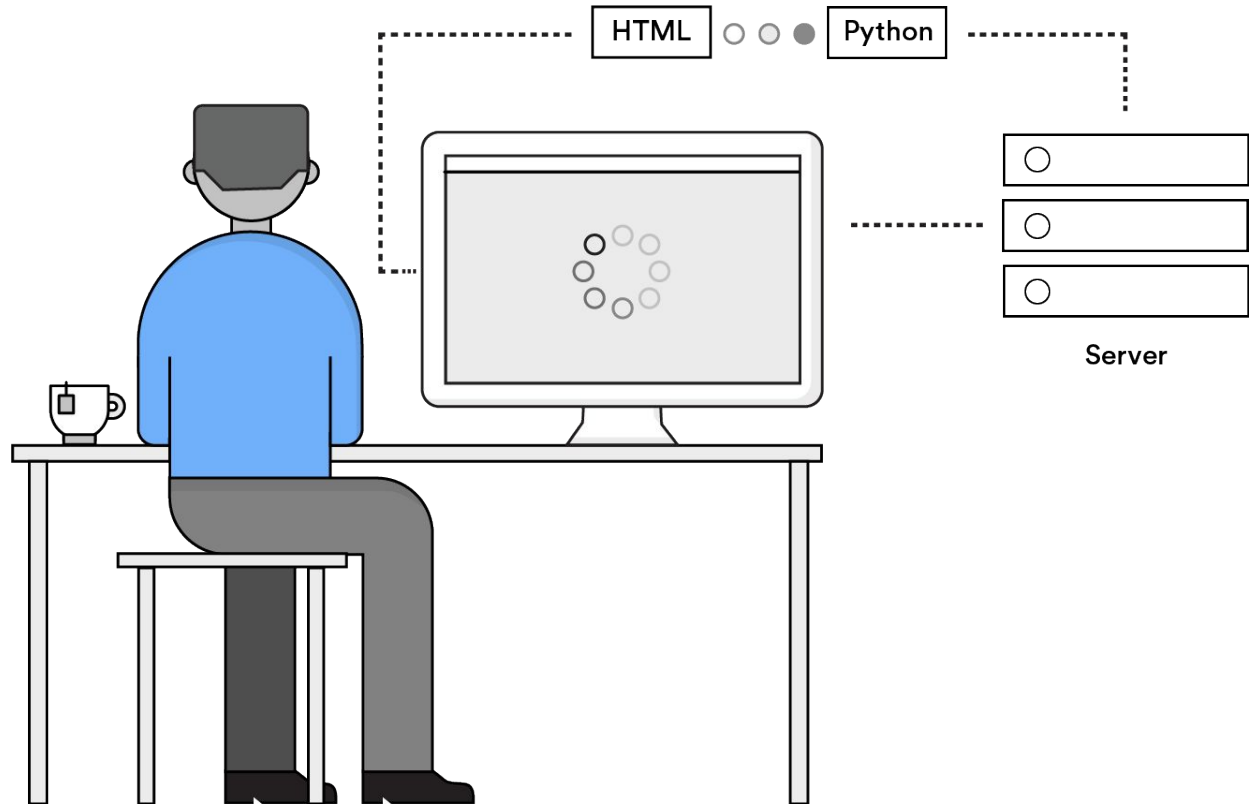
The Back-End: How It Works



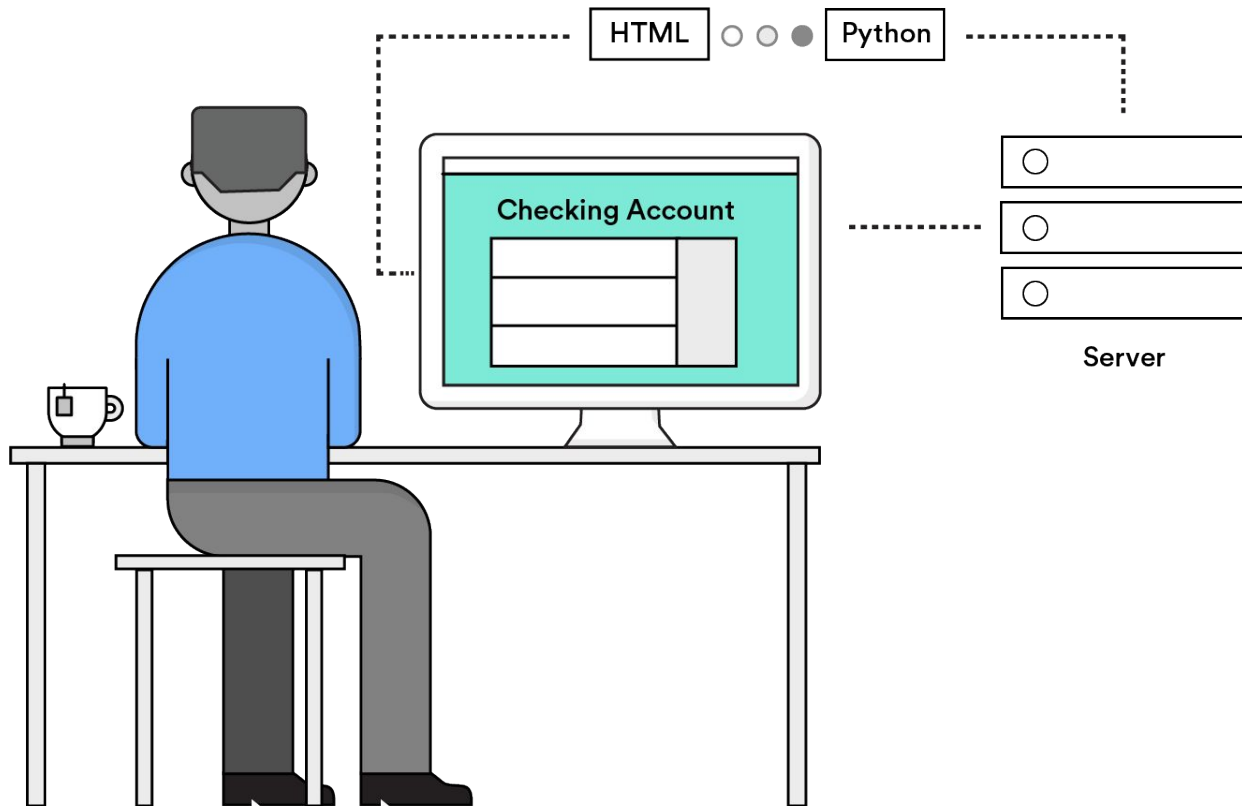
The Back-End: How It Works



The Back-End: How It Works

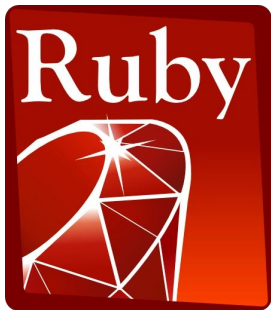


The Back-End: How It Works



The Back-End Comprises...

(And it's always evolving!)



Intro to Coding



HTML: A Closer Look



What Is HTML? (Cont.)

SECTIONS

Q SEARCH

U.S. INTERNATIONAL 中文

LOG IN

The New York Times

Today's Paper Video 36°F Dow -1.80%

World U.S. Politics New York Business Opinion Technology Science Health Sports Arts Style Food Home Travel Magazine Real Estate ALL

New York City Police Sharply Cut Arrests for a Second Week

By J. DAVID GOODMAN and AL BAKER 53 minutes ago

Police officers arrested less than half as many people and wrote more than 90 percent fewer summonses than in the same period a year ago, building on a drastic drop in activity that began shortly after the murder of two uniformed patrol officers.

108 Comments

Republicans Say They'll Act Fast to Push Their Agenda

By CARL HULSE

Eager to show that it can govern well, the Republican Party that takes control of Congress beginning Tuesday is likely to begin by trying to quickly advance energy and health care legislation.

830 Comments



Fred R. Conrad/The New York Times

Bess Myerson, a Beauty Queen Who Reigned in Politics, Dies

Ms. Myerson, the first Jewish Miss America, was one of a select group of American figures to parlay pop culture celebrity into positions of public influence. She was 90.

By ENID NEMY and WILLIAM McDONALD

Afghan Cares for the Living by Carrying the Dead

By AZAM AHMED 12:07 PM ET

Malik Abdul Hakim, who has lost two sons, is revered for collecting and returning the bodies of both Taliban and government casualties.



Home Schooling: More Pupils, Less Regulation

The Opinion Pages

When Skepticism Counts

Novelist David Baldacci and others on the role of conspiracy theories in society.

- Editorial: Race and Voting Rights in Ferguson

OP-ED COLUMNISTS

- Blow: Privilege of 'Arrest Without Incident'
- Krugman: Presidents and the Economy

The Central Crisis in New York Education

By THE EDITORIAL BOARD

New York, which regards itself as a bastion of liberalism, has the most racially and economically segregated schools in the nation.

- Editorial: Shifting Politics on the Death Penalty
- Op-Ed: Losing the Fight Against Tuberculosis

Watching

now A judge in Wisconsin **ordered a trial for Dustin Diamond**, best known as Screech from "Saved by the Bell," on charges stemming from a bar fight on Christmas night.

Milwaukee Journal Sentinel >



22m **Markets tumbled in Europe and the U.S.** as the declining price of oil sent ripples around the world.

The New York Times

25m **Gov. Jerry Brown**, already California's longest-serving governor, will be sworn in Monday for his fourth term. He has said he aims to shore up the state's fiscal turnaround.

The Los Angeles Times >



HTML: Hypertext Markup Language

- HTML is made up of tags.
- Tags tell the browser how to format content (e.g., will the content be formatted as an image or as a link?)

`<h1>Hello World!</h1>`

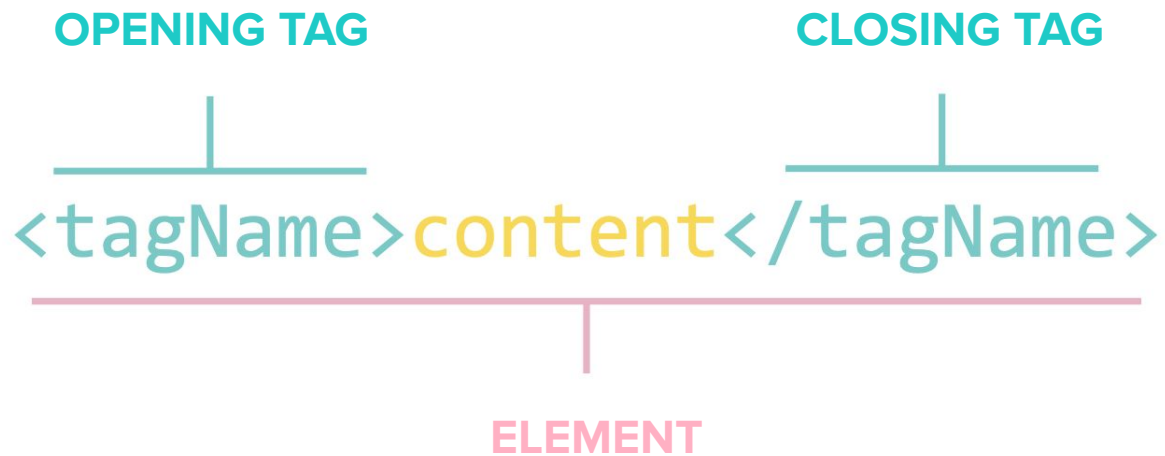


Hello World!



These are
tags

How Do I Write HTML?



Intro to Coding

I Can Make the Internet: HTML Code-Along





Guided Walk-Through: HTML Code-Along

2 minutes



Open your browser and navigate to:

<https://codepen.io/madeline10302/pen/XZxXmO>

CodePen is a social development environment. At its heart, it allows you to write code in the browser, and see the results of it as you build. A useful and liberating online code editor for developers of any skill, and particularly empowering for people learning to code.



Headings and Paragraphs

ELEMENT	DESCRIPTION	EXAMPLE
h1	Main headings	<code><h1>The Explorer</h1></code>
h2-h6	Subheadings	<code><h2>Articles</h2></code>
p	Paragraph of text	<code><p>This is a really cool site.</p></code>



My First Website

This is my first paragraph ever. Isn't it grand?

About this awesome website

Here are some of the elements used on this site:

Lists

ELEMENT	DESCRIPTION	EXAMPLE
li	List item	<pre> Monday Tuesday Wednesday </pre>
ul	Unordered list	
ol	Ordered list	<pre> Monday Tuesday Wednesday </pre>



My First Website

This is my first paragraph ever. Isn't it grand?

About this awesome website

Here are some of the elements used on this site:

- Headings
- Paragraphs
- Lists

My First Website

This is my first paragraph ever. Isn't it grand?

About this awesome website

Here are some of the elements used on this site:

1. Headings
2. Paragraphs
3. Lists

— Anchors

ELEMENT	DESCRIPTION	EXAMPLE
a	Anchor	<code><a>Amazon</code>

`<a>Amazon</a>`



CLICKABLE TEXT

Attributes (Cont.)

Attributes are additional information we add to an element.

- They appear in the opening tag of the element.
- They are made up of two parts: a name and a value, separated by “=”.

`<a href="http://www.amazon.com">Amazon</a>`

NAME **VALUE**

HREF ATTRIBUTE



My First Website

This is my first paragraph ever. Isn't it grand?

About this awesome website

Here are some of the elements used on this site:

1. Headings
2. Paragraphs
3. Lists

[Visit this awesome website](#)

Attributes (Cont.)

Image elements `<img>` also require attributes!

- This tells the browser what image should be rendered on the page.
- Alternate tags tell robots what is depicted in the image (you're not the only one reading what's in the browser!).

```

```

Diagram illustrating the components of the `<img>` tag:

- NAME**: `<img>`
- VALUE**: `src="https://placekitten.com/g/500/600"`
- ALTERNATE TAG**: `alt="Kitten">`
- IMG ATTRIBUTE**: The entire tag structure.



My First Website

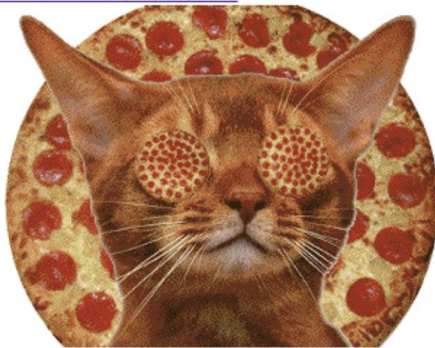
This is my first paragraph ever. Isn't it grand?

About this awesome website

Here are some of the elements used on this site:

1. Headings
2. Paragraphs
3. Lists

[Visit this awesome website](#)



Intro to Coding



HTML Lab





Solo Exercise: HTML Lab

10 minutes



Open this CodePen link:

<https://codepen.io/madeline10>

(Use the Lab 1 image on your
cheat sheet as your reference.)

My First Website

HTML and CSS Rule!



Developer's Creed

Repeat this three times each night before you go to sleep.

"This is my website. There are many like it, but this one is mine. My website is my best friend. It is my life. I must master it as I must master my life. Without me my website is useless. Without my website I am useless."

Steps to create a basic webpage:

1. Add structure using HTML
2. Add styles using CSS

This site was built using:

- HTML
- CSS

[Facebook](#) | [Twitter](#) | [Instagram](#)

Made with ♥ at General Assembly



Discussion:

How Did It Go?

3 minutes



Let's look at the solution code:

<https://codepen.io/madeline10302/pen/mYqjgM?editors=1100>

- What was challenging about this exercise?
- Where did your code break?

Intro to Coding



CSS: A Closer Look



Let's Add Some Style



HTML

CSS

This is what's on the page:

`<p>Welcome!</p>`

HTML

Ah, I see.

Welcome!

Browser

But make it FASHION!

```
p {  
  color: red;  
  text-align: center;  
}
```

CSS

What Is CSS?

SELECTOR
(what we are styling)

→ p {
color: blue;
font-size: 20px;
font-style: italic;
}

**DECLARATION
BLOCK**
(our styles!)

Intro to Coding

I Can Make the Internet: CSS Code-Along





Guided Walk-Through: CSS Code-Along

2 minutes



Navigate back to:

<https://codepen.io/madeline10302/pen/XZxXmO>

Color

PROPERTY	VALUE	DESCRIPTION	EXAMPLE
color	color	Text color	color: #22475E;
background-color	color	Background color	background-color: green;

Muir Woods

Keffiyeh next level retro, brunch *sriracha* dreamcatcher mixtape jean shorts XOXO master cleanse keytar **Kickstarter**. Neutra kale chips Vice health goth ethical, flannel single-origin coffee stumptown meditation Kickstarter mumblecore yr cronut master cleanse keytar.

```
body {  
  background-color: #22475E;  
}
```

Muir Woods

Keffiyeh next level retro, brunch *sriracha* dreamcatcher mixtape jean shorts XOXO master cleanse keytar **Kickstarter**. Neutra kale chips Vice health goth ethical, flannel single-origin coffee stumptown meditation Kickstarter mumblecore yr cronut master cleanse keytar.

```
h1, p {  
  color: #98D2BF;  
}
```



Guided Walk-Through: CSS Code-Along

2 minutes



Return to CodePen.

It's time to add color to your site!

- Make the background of your site color #22475E.
- Make the text color #FFB6C1.



Here's How It Should Look

My First Website

This is my first paragraph ever. Isn't it grand?

About this awesome website

Here are some of the elements used on this site:

1. Headings
2. Paragraphs
3. Lists

[Visit this awesome website](#)



Typeface

PROPERTY	VALUES	EXAMPLE
text-align	left, center, right, justify	text-align: center;
text-transform	uppercase, lowercase, capitalize	text-transform: uppercase;
text-decoration	none, underline	text-decoration: underline;
letter-spacing	px value	letter-spacing: 1px;
font-weight	normal, bold	font-weight: bold;
font-style	regular, italic	font-style: italic;
font-size	px value	font-size: 20px;



Guided Walk-Through: CSS Code-Along

3 minutes

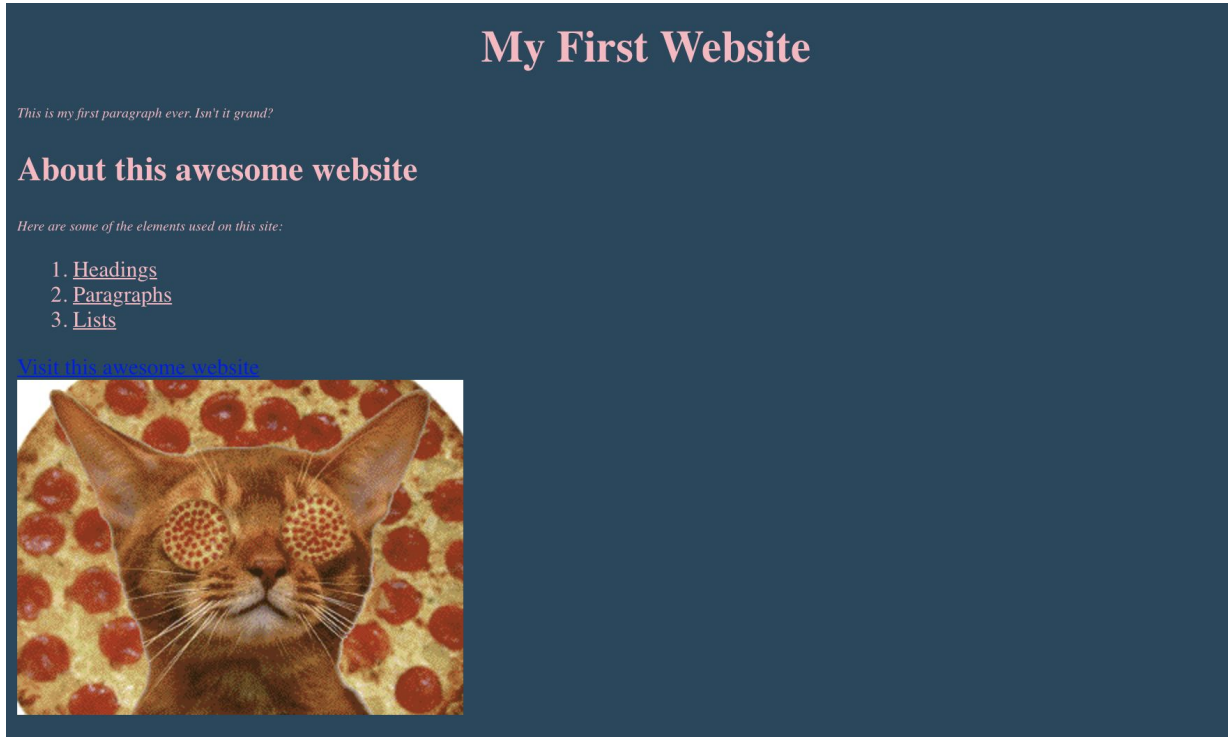


Go back to CodePen!

Let's add some style to your text.

- Center the title of your page (“My First Website”).
- Underline the list items.
- Italicize your paragraph text.
- Set your paragraph text to 10px in size.

Here's How It Should Look



Fonts

PROPERTY	VALUES	EXAMPLE
font-family	"Font-family", sans serif, serif	font-family: "Georgia", serif;

Arial Georgia



Guided Walk-Through: CSS Code-Along

3 minutes



Web font services — like Google Fonts — allow us to ensure that all users can see the same font.

- Navigate to [Google Fonts](#).
- Search “Raleway” and click the “+” button to select the font.
- Search “Lato” and click the “+” button to select the font.
- Click the tab that pops up at the bottom:



2 Families Selected

- Click the “Embed” tab and “@import.”
- Copy the import code and paste it in your CSS file in CodePen.





Guided Walk-Through: CSS Code-Along

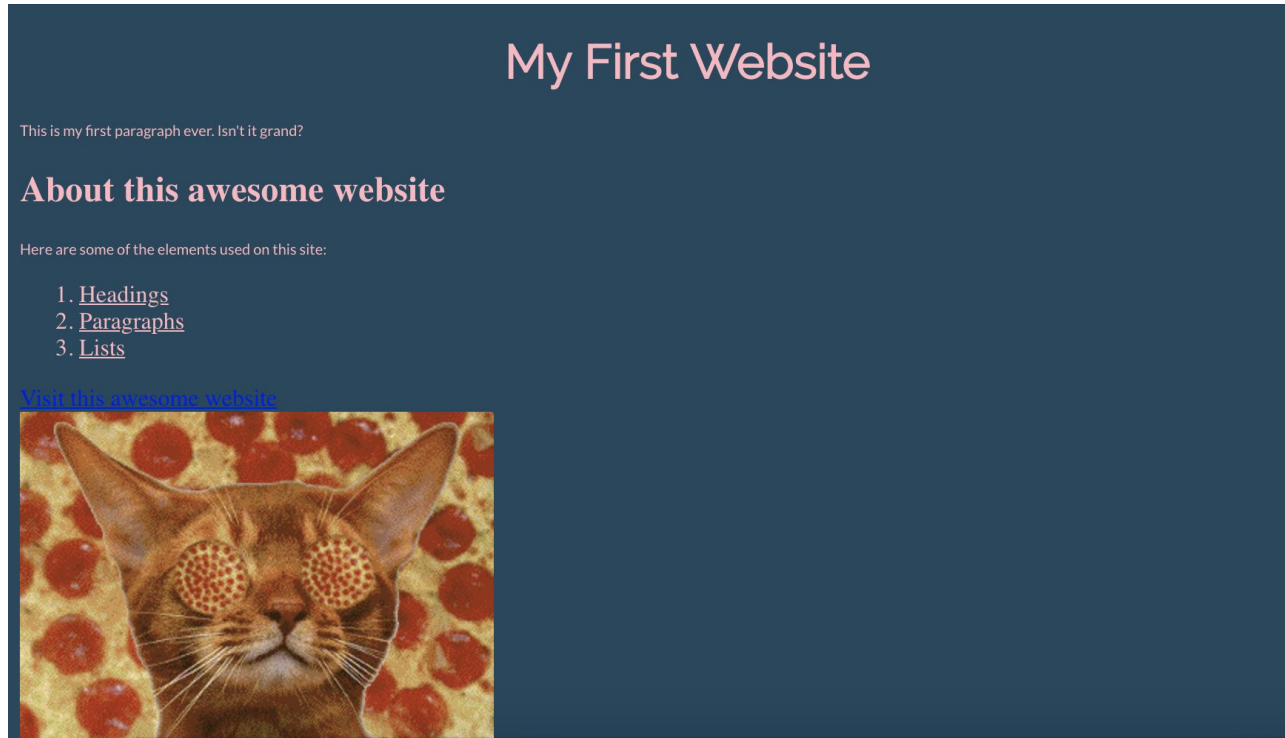
3 minutes



Let's put those fonts to work!

- Add Raleway to your page title.
- Add Lato to the paragraph text.

Here's How It Should Look



Intro to Coding



CSS Lab



Before We Get Started...

- Being a developer is 90% looking up how to fix broken code and 10% actual coding.
- It's not about knowing everything; it's being able to find the answers (i.e., doing a really good Google search).
- Resources include:
 - Mozilla Developer Network
 - W3Schools
 - CSS Tricks



thepracticaldev

...

DEV

“If you give someone a program, you will frustrate them for a day;
If you teach them how to program, you will frustrate them for a lifetime.”

David Leinweber





Solo Exercise: CSS Lab

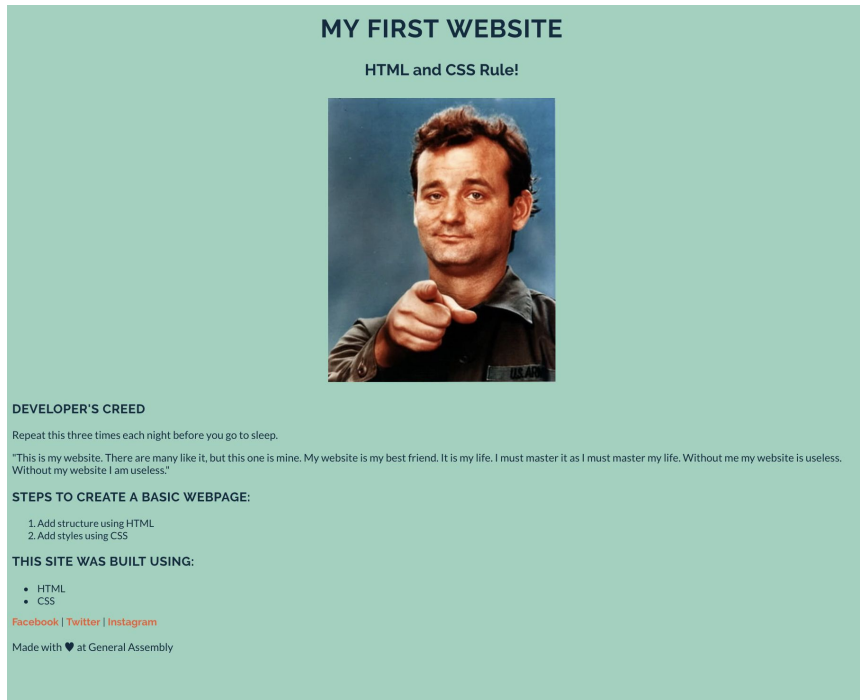
15 minutes



Open this CodePen link again:

<https://codepen.io/madeline10>

Use the mockup with
annotations to help you decide
what style properties to add.





Let's look at the solution code:

- Basic version: <https://codepen.io/madeline10302/pen/YeJwqq>
- Advanced version: <https://codepen.io/madeline10302/pen/GQYoZr>

Discuss:

- What was challenging about this exercise?
- Where did your code break?

You Did It!



Intro to Coding



Next Steps



Which Developer Role Is Right for Me?

Type	What They Do	Languages	Good For
Front-End Developer	Make websites and applications functional and delightful for users.	JavaScript, HTML, CSS	Creatives, UX lovers, anyone who wants to make a website
Back-End Developer	Make the FE a reality and ensure websites and applications work well.	PHP, Java, Ruby, Python, SQL	Organizers, dependable types, people who like getting under the hood
Full-Stack Developer	Works on both the FE and BE; a great fit for startups.	JavaScript, HTML, CSS, PHP, Java, Ruby, Python, SQL	Whole-picture thinkers, startup fans



Coding at GA

Part-Time Courses:
Front-End Web Development
Python
JavaScript
React



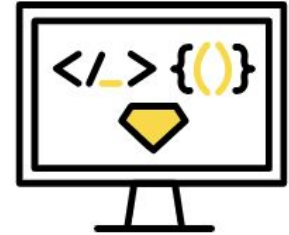
Part time
Instructor led
On campus or online

Online, Self-Led Courses:
JavaScript Circuit
HTML, CSS, & Web
Design Circuit



Part time
Self led
Online

Immersive Courses:
Software Engineering Immersive



Full or part time
Instructor led
On campus or online

NEW IN 2019:

Software Engineering Immersion

Our flagship Immersive has gotten a full upgrade.

- Deep computer science focus.
- Spotlight on front-end frameworks.
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- \$0 upfront tuition options.
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GENE



We appreciate your feedback!

Please take 60 seconds to complete our survey.

ga.co/introto

Intro to Coding



Q&A



