

HTML as a Language

Textbook

HTML as a language

Foundation

Now that you've had some practice we're going to learn more about coding languages, specifically [HTML](#) & [CSS](#). We're also going to learn some exciting new HTML tags!



What is a programming language?

A [programming language](#) is a set of vocabulary words and grammatical rules called [syntax](#) for telling a computer to perform specific tasks. Programming languages are used to run operations and produce a result. HTML, CSS, JavaScript and Python are all programming languages.

What is a markup language?

A [markup language](#) divides data into meaningful sections and displays data in a specified format and layout. HTML is a markup language. HTML is used to create the layout and design of everything you see on a web page. This is different from a programming language because it doesn't produce any dynamically generated content; it shows the same "static" content.

What are programming languages used for?

Coding is used to build all of our technology including your favorite video games, websites, mobile apps, social media sites, computers, and even robots!

We will start with HTML and CSS to build websites! Over time, you'll learn other programming languages too!



Specifying Doctype HTML

Because there are many different languages that computers can use, it is best to specify the language you are using before writing any other code.

This is called declaring a [doctype](#). The following code shows how to do this in an HTML file:

Declare a doctype at the top of an HTML file, before any other code, by writing

`<!DOCTYPE html>` at the top of your HTML file.

```
1 <!DOCTYPE html>
2
3 <h1>Hey there!</h1>
4
5 <h3>How are you? </h3>
```

Try it!

HTML AS A LANGUAGE

HTML



**Skill
Struck** TM

▶ 0:00 / 0:43



Checkpoint

Doctype (Start coding)

Add the doctype to the top of the HTML file (use your code editor) to help the computer understand your code. Make sure it's the first thing on your html file.

Get help

Remember, your doctype declaration must be on the first line of the file.

Checkpoint

HTML as a Language

Add the **doctype** to the **top of the HTML file** (use your code editor) to help the computer understand your code.

Make sure it's the first thing on your HTML file.

Remember, your doctype declaration must be on the first line of the file.

Requirements:

- Doctype at the top of the file

Questions (8)

1. True or False: HTML is a markup language.

MULTIPLE CHOICE

Choose the correct answer:

- A. True
- B. False

2. Edit the text box below to debug (fix) the code:

DEBUG CODE

Code to Debug:

```
1 <DOCTYPE html!>
```

3. How do you specify what kind of language your page is going to be programmed in?

MULTIPLE CHOICE

Choose the correct answer:

- A. A doctype at the top of the code page.
- B. A language style tag at the top of the code page.
- C. A language type tag at the top of the code page.
- D. A language type tag at the bottom of the code page.

4. What kind of things can programming languages create? Select all that apply.

SELECT MULTIPLE

Select all that apply:

- A. websites
- B. video games
- C. mobile apps
- D. robotic instructions

5. What is the purpose of a markup language like HTML?

MULTIPLE CHOICE

Choose the correct answer:

- A. To display data in a specified format and layout.
- B. To generate dynamic content for web pages.
- C. To create vocabulary words for programming languages.
- D. To crunch numbers.

6. Which of the following is an example of a markup language?

MULTIPLE CHOICE

Choose the correct answer:

- A. HTML
- B. JavaScript
- C. Python
- D. Java

7. Edit the text box below to debug (fix) the code:

DEBUG CODE

Code to Debug:

```
1 <!doctype html>
```

8. Edit the text box below to debug (fix) the code:

DEBUG CODE

Code to Debug:

```
1 !DOCTYPE html>
```

Challenges (6)

1. Musical Language

One of the most universal languages is music.

Create an HTML with the proper **doctype declaration** and use **heading tags** to describe 3 different types of music that you are familiar with.

Example Output:

Classic Rock

Alternative/Indie

Classical

Requirements:

- Include the proper doctype declaration.
- Include an h1, h2, and h3 tag of your favorite types of music (h1 being your most favorite).

2. Language Experience

In at least **3 heading tags**, share about an experience you have with a different language.

Maybe you've tried learning a new language? Maybe you can speak another language? Have you ever heard someone speak another language? Share some of your thoughts.

Begin with a **doctype tag**.

Example Output:

I visited China on a vacation with my family. We tried our best to talk to the people there. It was hard to understand when they spoke so fast! Many people helped me learn.

I read a picture book in Chinese. Writing in Chinese almost felt like drawing, with its long elegant marks that create meaning. I loved to try to understand the meaning behind the characters.

Learning Chinese took a LOT of practice. I had to use a word or phrase over and over again before I felt like I had really learned it for good. I had to try hard not to get discouraged as I worked at it every day.

Requirements:

- Share about your experience with another language. Use at least 3 heading tag.
- Begin with a doctype tag.

3. Duplicating Doctype

Practice writing `<!DOCTYPE html>` 5 times.

Requirements:

- Doctype tag 5 times.

4. Thank You

Since HTML is a language, let's explore some different languages from around the world.

Create 5 `h1` tags and put different ways to say Thank You inside them.

Don't forget to put the doctype tag before the header tags.

Example Output:

Gracias

Xie Xie

Merci

Grazie

Danke

Requirements:

- Heading tags that say Thank You in 5 languages.
- The doctype tag.

5. Journal Entry

Write a short journal entry about some cool experiences you have been through.

Create at least **3 heading tags**, each containing at least **2 sentences**. End your sentences using only periods.

Style the most important heading tag with the font **Impact**. Make sure to include the **doctype tag** at the top.

Example Output:

Peru

I had a cool experience in Peru. I was able to visit Machu Picchu and then went to Lima.

Lima

I was able to participate in a humanitarian trip in Lima. I helped build a school there.

Friends

Requirements:

- Doctype Tag.
- 3 heading tags, 2 sentences each
- Most Important heading tag styled using the impact font.

6. Travel Expedition

List **5** different places in heading tags that you would like to travel and type out the places in their language (ex: **Germany = Deutschland**).

Style each heading tag with a different **font**.

Make sure to include the **doctype tag** at the top.

Example Output:

Austria

Italy

Peru

Canada

Japan

Requirements:

- Doctype Tag.
- List 5 different countries, each with its own heading tag.

Games (2)

1. HTML as a Language Ordering

Put the code bits in order to create the correct doctype tag.

Full Screen

Audio

Instructions

Answer Key

Pause

Clear All

Check Matches

Attempts: 0

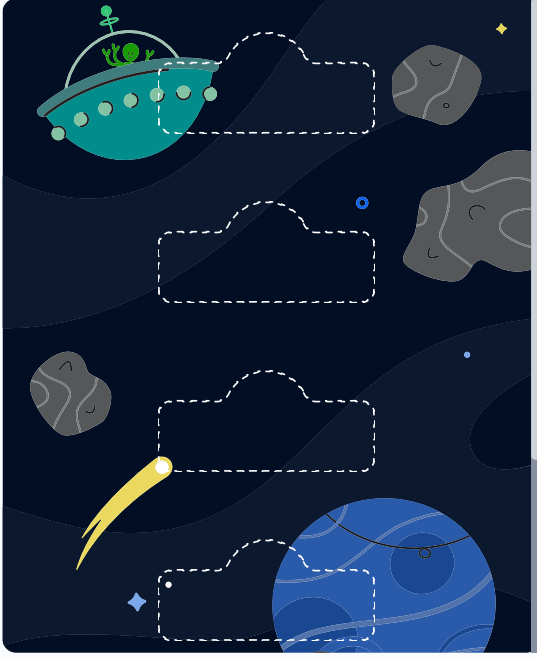
html

>

!

DOCTYPE

<



2. HTML as a Language Typing

Practice your typing skills with coding keys! Type in the following code.

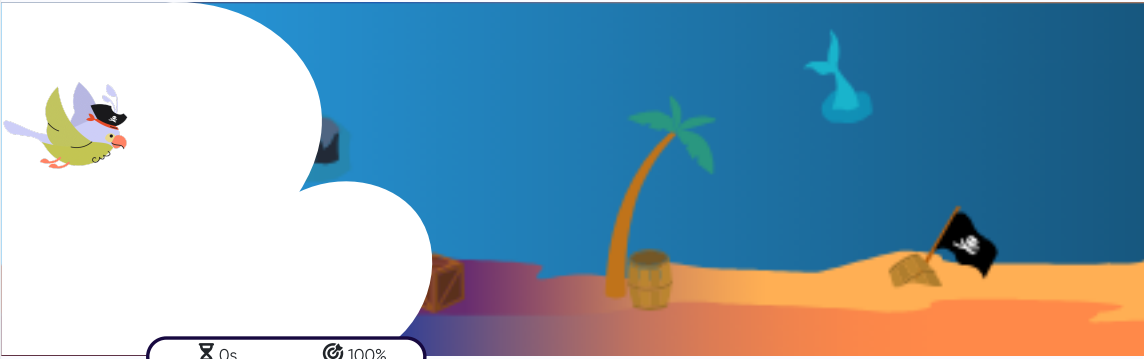
Full Screen

Audio

Instructions

Restart

Pause



0s100%

```
<!DOCTYPE html>
```

Answer Keys & Solutions

Checkpoint Solutions

HTML as a Language

```
1 <!DOCTYPE html>
```

Questions

1. True or False: HTML is a markup language.

MULTIPLE CHOICE

Correct Answer:

A. True

✓ Correct

B. False

✗ Incorrect

Explanation:

Markup languages often use tags.

2. Edit the text box below to debug (fix) the code:

DEBUG CODE

Incorrect Code:

```
1 <DOCTYPE html!>
```

Correct Solution:

```
1 <!DOCTYPE html>
```

Explanation:

Is the exclamation point in the correct spot?

3. How do you specify what kind of language your page is going to be programmed in?

MULTIPLE CHOICE

Correct Answer:

A. A doctype at the top of the code page.

✓ Correct

B. A language style tag at the top of the code page.

✗ Incorrect

C. A language type tag at the top of the code page.

✗ Incorrect

D. A language type tag at the bottom of the code page.

✗ Incorrect

Explanation:

This is what it looks like: `<!DOCTYPE html>`

4. What kind of things can programming languages create? Select all that apply.

SELECT MULTIPLE

Correct Answers:

A. websites

✓ Correct

B. video games

✓ Correct

C. mobile apps

✓ Correct

D. robotic instructions

✓ Correct

Explanation:

Programming languages can create just about everything you use on a computer or the functionality of a robot!

5. What is the purpose of a markup language like HTML?

MULTIPLE CHOICE

Correct Answer:

A. To display data in a specified format and layout.

✓ Correct

B. To generate dynamic content for web pages.

✗ Incorrect

C. To create vocabulary words for programming languages.

✗ Incorrect

D. To crunch numbers.

✗ Incorrect

Explanation:

Markup languages show how data will be displayed

6. Which of the following is an example of a markup language?

Correct Answer:

- | | |
|---------------|-------------|
| A. HTML | ✓ Correct |
| B. JavaScript | ✗ Incorrect |
| C. Python | ✗ Incorrect |
| D. Java | ✗ Incorrect |

Explanation:

The language we are learning in this course is a markup language.

7. Edit the text box below to debug (fix) the code:

Incorrect Code:

```
1 <!doctype html>
```

Correct Solution:

```
1 <!DOCTYPE html>
```

Explanation:

doctype should be capitalized

8. Edit the text box below to debug (fix) the code:

Incorrect Code:

```
1 !DOCTYPE html>
```

Correct Solution:

```
1 <!DOCTYPE html>
```

Explanation:

It's missing an opening angle bracket

1. Musical Language

Solution:

```
1 <!DOCTYPE html>
2 <h1>Classic Rock</h1>
3 <h2>Alternative/Indie</h2>
4 <h3>Classical</h3>
```

2. Language Experience

Solution:

```
1 <!DOCTYPE html>
2 <h2>I visited China on a vacation with my family. We tried our best to talk to the
  people there. It was hard to understand when they spoke so fast! Many people helped
  me learn.</h2>
3 <h2>I read a picture book in Chinese. Writing in Chinese almost felt like drawing,
  with its long elegant marks that create meaning. I loved to try to understand the
  meaning behind the characters.</h2>
4 <h2>Learning Chinese took a LOT of practice. I had to use a word or phrase over
  and over again before I felt like I had really learned it for good. I had to try
  hard not to get discouraged as I worked at it every day</h2>
```

3. Duplicating Doctype

Solution:

```
1 <!DOCTYPE html>
2 <!DOCTYPE html>
3 <!DOCTYPE html>
4 <!DOCTYPE html>
5 <!DOCTYPE html>
```

4. Thank You

Solution:

```
1 <!DOCTYPE html>
2 <h1>Gracias</h1>
3 <h1>Xie Xie</h1>
4 <h1>Merci</h1>
5 <h1>Grazie</h1>
```

5. Journal Entry

Solution:

```
1 <!DOCTYPE html>
2 <h1 style="font-family:impact">Peru</h1>
3 <h1>I had a cool experience in Peru. I was able to visit Machu Picchu and then went
  to Lima.</h1>
4 <h2>Lima</h2>
5 <h2>I was able to participate in a humanitarian trip in Lima. I helped build a
  school there.</h2>
6 <h3>Friends</h3>
7 <h3>I was able to love and serve many people there. I made so many friends.</h3>
```

6. Travel Expedition

Solution:

```
1 <!DOCTYPE html>
2 <h2 style="font-family:arial">Austria</h2>
3 <h2 style="font-family:fantasy">Italy</h2>
4 <h2 style="font-family:tahoma">Peru</h2>
5 <h2 style="font-family:cursive">Canada</h2>
6 <h2 style="font-family:times new roman">Japan</h2>
```

Games

1. HTML as a Language Ordering

Correct Order:

1. <
2. !
3. DOCTYPE
4. html
5. >

Scoring:

- Gold: 1 attempts or fewer
- Silver: 3 attempts or fewer
- Bronze: 5 attempts or fewer

Students must arrange items in the correct sequence.

2. HTML as a Language Typing

Typing game - no answer key needed. Students practice typing the provided content.