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If you have not set up VS Code yet, here are instructions

</ AI Chatbot
Website

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Frontend vs Backend

01

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</ Frontend

Client-side

Code is executed on the user's device (client browser), resulting in a responsive user experience

Presentation

Deals with visual and interactive elements, including layout, design, and UI

Languages

- HTML
- CSS
- JavaScript

Responsiveness

Websites need to be adapted to various screen sizes and devices

Cross-browser Compatibility

Website should function consistently across various web browsers

</ Backend

Server-side

Pertains to the server and the server-side logic of the web application

Data Handling

Involves managing databases, processing user input, and handling business logic

Technologies/ Languages

- Python
- Java
- PHP
- Node.js
- Ruby

APIs

Application programming interfaces allows the frontend to communicate with the server

Security

Measures are set in place to protect data and prevent unauthorized access

Scalability

Application should be able to handle a large number of users and requests without performance degradation

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HTML and CSS

02

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</ HTML and CSS



HTML

Hypertext Markup Language

- Creates the structure of your site:
 - title, body paragraphs, footer, etc.



CSS

Cascading Style Sheets

- Formats the layout and visuals:
 - color, size, font, spacing, etc.

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JavaScript

03

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</ JavaScript

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What is it?

- JavaScript is used for dynamic web page content
- Creates menus, graphics, and dynamic colors
- Primarily used for frontend web development

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How will we use it?

- (Optional) Uploading pictures/icon into your website!

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Python and Flask

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</ Python and Flask

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What is it?

- High-level language used for data processing and web development
- Python Flask is a Python framework that provides tools to make web development easier

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Our idea

- Students will use Python Flask to create the backend of the website

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APIs

05

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</ APIs



What is an API?

Application Programming Interface

- Extends functionality of your webpage while simplifying complex functions
- There are built-in Browser APIs and Third Party APIs

Additional Information

- API rate limits
- API Documentation



Examples

Browser API

- HTMLMediaElement to create custom UI controls for videos/audio
- Geolocation API to access location data from a GPS device

Third Party API

- YouTube API to embed YouTube videos and playlists
- PayPal API to integrate PayPal payments for users

</ Coding Time!

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Pull up VS Code!

</ Thanks!

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Feel free to ask questions now

</ Additional Resources

APIs

Flask Documentation

W3Schools HTML

W3Schools CSS

W3Schools Javascript

W3Schools Python

