

ByteCode: Online Compiler Platform

ByteCode is a React-based online compiler for new coders.

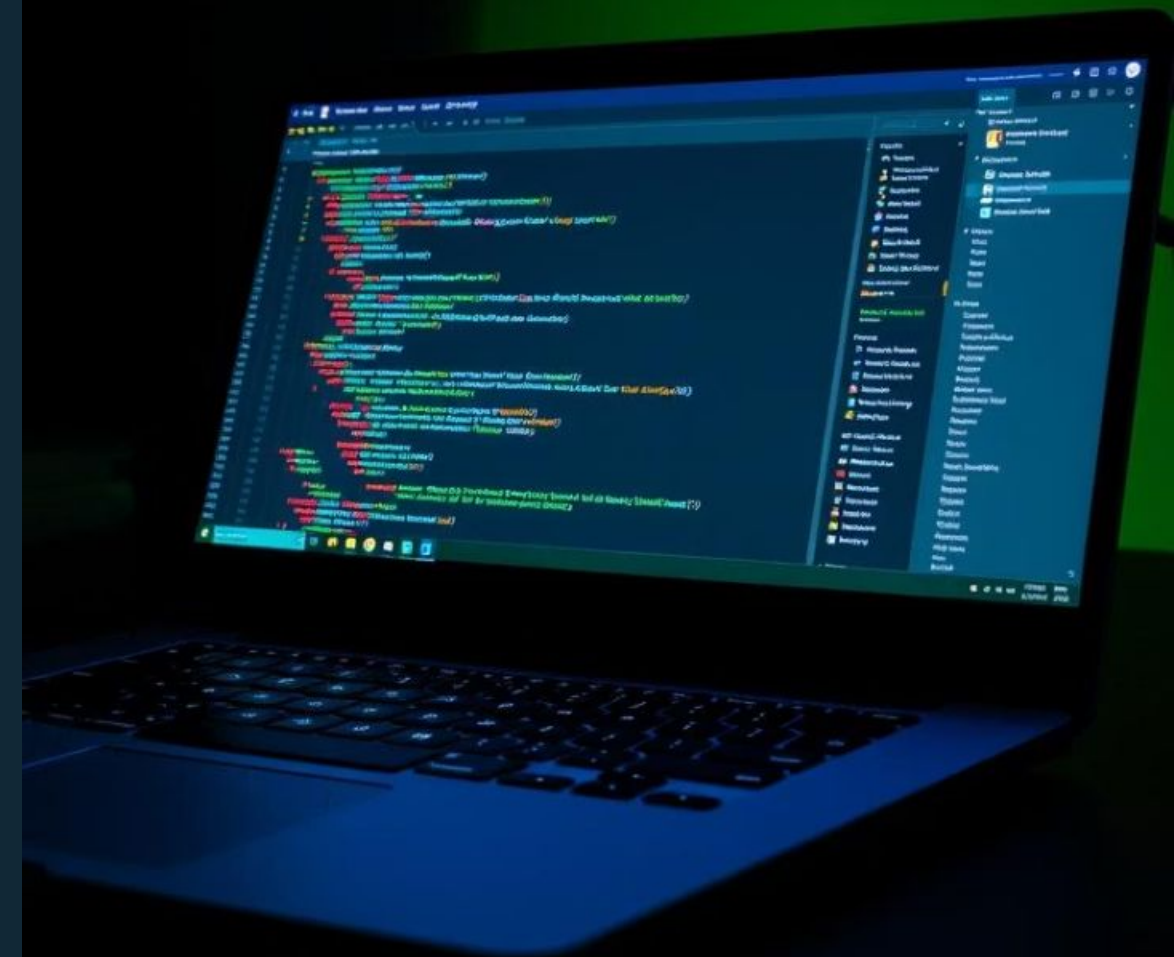
Users log in with Google or GitHub to start coding.

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Project goals and vision
overview

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Live demonstration and upcoming features

What is *ByteCode*?

User-Friendly Online Compiler

Supports multiple programming languages for new coders.

Seamless Login

Access with Google or GitHub accounts securely.

Code Download

Users can easily save and download their code files.

ByteCode Architecture

Frontend

Built with React for a responsive user experience.

Authentication

OAuth integration with Google and GitHub for secure login.

Download

Download the code in the local system

Core Files and Components

Login Module

OAuth flow for Google and GitHub authentication.

Editor Component

Supports multiple languages with syntax highlighting.

Compiler Integration

Backend processes submitted code and returns output.

Download Feature

Enables users to export their code as files.

ByteCode Demo

Login.



Downlod File

1

Step 1:

Log in via Google or GitHub account.

2

Step 2:

Select preferred programming language.

3

Step 3:

Write or paste code in the online editor.

4

Step 4:

Download code file to local device.

Future Enhancements

Real-time Collaboration

Enable multiple programmers to code together.

Smart Code Suggestions

Integrate AI for autocomplete and error detection.



Expanded Language Support

Include more programming languages and frameworks.

Code Sharing

Allow users to share projects with community.



References and Resources

- React official documentation and developer guides (<https://react.dev/>)
- OAuth standards for secure third-party login (<https://oauth.net/2/>)
- Open-source compiler APIs and tools
- ~~(<https://chatgpt.com/>)~~ and DeepSeek (<https://openai.com/index/chatgpt/>)



Thank You

Thank you for exploring ByteCode with us.

We enable new coders to code anytime, anywhere.