

# ByteCode: Online Compiler Platform

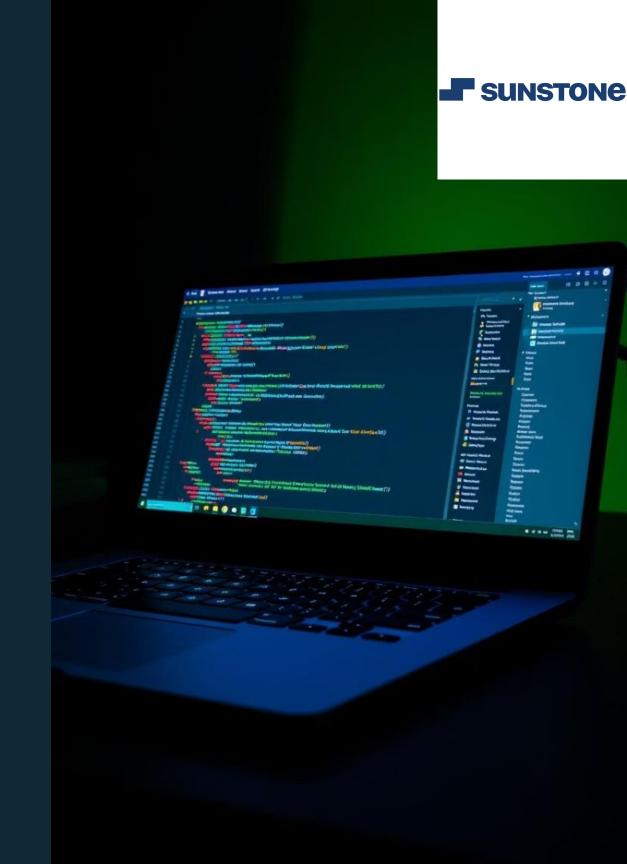
ByteCode is a React-based online compiler for new coders.

Users log in with Google or GitHub to start coding.

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overview

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# 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

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# 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.

# Login. | Cogin | Cogi

**Downlod File** 

# ByteCode Demo

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
- (thap C/P downs i greep vseek r (hotops://s)openai.com/index/chatgpt/)



# Thank You

Thank you for exploring ByteCode with us.

We enable new coders to code anytime, anywhere.