**ONLINE IDE**

**GITHUB LINK-**<https://github.com/jpsujithashree/ide>

**Problem statement**

1) You need to build a single page app, that uses the api given in the below link <https://rapidapi.com/hermanzdosilovic/api/judge0> and build an online ide similar to <https://ide.judge0.com/>

2) You should maintain your codes in GITHUB with proper documentation.

3) The app can be hosted in any of the cloud service providers, preferable in AWS / Azure / GCP.

**Prerequisite**

An integrated development environment (IDE) is a [software application](https://en.wikipedia.org/wiki/Application_software) that provides comprehensive facilities to [computer programmers](https://en.wikipedia.org/wiki/Computer_programmer) for [software development](https://en.wikipedia.org/wiki/Software_development). An IDE normally consists of at least a [source code editor](https://en.wikipedia.org/wiki/Source_code_editor), [build automation](https://en.wikipedia.org/wiki/Build_automation) tools and a [debugger](https://en.wikipedia.org/wiki/Debugger). Some IDEs, such as [NetBeans](https://en.wikipedia.org/wiki/NetBeans" \o "NetBeans) and [Eclipse](https://en.wikipedia.org/wiki/Eclipse_(software)), contain the necessary [compiler](https://en.wikipedia.org/wiki/Compiler), [interpreter](https://en.wikipedia.org/wiki/Interpreter_(computing)), or both; others, such as [SharpDevelop](https://en.wikipedia.org/wiki/SharpDevelop" \o "SharpDevelop) and [Lazarus](https://en.wikipedia.org/wiki/Lazarus_(IDE)), do not.

The boundary between an IDE and other parts of the broader software development environment is not well-defined; sometimes a [version control system](https://en.wikipedia.org/wiki/Version_control_system) or various tools to simplify the construction of a [graphical user interface](https://en.wikipedia.org/wiki/Graphical_user_interface) (GUI) are integrated. Many modern IDEs also have a [class browser](https://en.wikipedia.org/wiki/Class_browser), an [object browser](https://en.wikipedia.org/wiki/Object_browser), and a [class hierarchy diagram](https://en.wikipedia.org/wiki/Class_diagram) for use in [object-oriented software development](https://en.wikipedia.org/wiki/Object-oriented_programming).

**HTML**

Hypertext Markup Language (HTML) is the standard [markup language](https://en.wikipedia.org/wiki/Markup_language" \o "Markup language) for documents designed to be displayed in a [web browser](https://en.wikipedia.org/wiki/Web_browser). It can be assisted by technologies such as [Cascading Style Sheets](https://en.wikipedia.org/wiki/Cascading_Style_Sheets) (CSS) and [scripting languages](https://en.wikipedia.org/wiki/Scripting_language) such as [JavaScript](https://en.wikipedia.org/wiki/JavaScript).

[Web browsers](https://en.wikipedia.org/wiki/Web_browser) receive HTML documents from a [web server](https://en.wikipedia.org/wiki/Web_server) or from local storage and [render](https://en.wikipedia.org/wiki/Browser_engine) the documents into multimedia web pages. HTML describes the structure of a [web page](https://en.wikipedia.org/wiki/Web_page) [semantically](https://en.wikipedia.org/wiki/Semantic_Web) and originally included cues for the appearance of the document.

[HTML elements](https://en.wikipedia.org/wiki/HTML_element) are the building blocks of HTML pages. With HTML constructs, [images](https://en.wikipedia.org/wiki/HTML_element#Images_and_objects) and other objects such as [interactive forms](https://en.wikipedia.org/wiki/Fieldset) may be embedded into the rendered page. HTML provides a means to create [structured documents](https://en.wikipedia.org/wiki/Structured_document) by denoting structural [semantics](https://en.wikipedia.org/wiki/Semantics) for text such as headings, paragraphs, lists, [links](https://en.wikipedia.org/wiki/Hyperlink), quotes and other items. HTML elements are delineated by *tags*, written using angular brackets. Tags such as as <img/>and <input /> directly introduce content into the page. Other tags such as <p> surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

**CSS**

Cascading Style Sheets (CSS) is a [style sheet language](https://en.wikipedia.org/wiki/Style_sheet_language) used for describing the [presentation](https://en.wikipedia.org/wiki/Presentation_semantics) of a document written in a [markup language](https://en.wikipedia.org/wiki/Markup_language) like [HTML](https://en.wikipedia.org/wiki/HTML). CSS is a cornerstone technology of the [World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web), alongside HTML and [JavaScript](https://en.wikipedia.org/wiki/JavaScript).

CSS is designed to enable the separation of presentation and content, including [layout](https://en.wikipedia.org/wiki/Page_layout), [colors](https://en.wikipedia.org/wiki/Color" \o "Color), and [fonts](https://en.wikipedia.org/wiki/Typeface). This separation can improve content [accessibility](https://en.wikipedia.org/wiki/Accessibility), provide more flexibility and control in the specification of presentation characteristics, enable multiple [web pages](https://en.wikipedia.org/wiki/Web_page) to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or [screen reader](https://en.wikipedia.org/wiki/Screen_reader)), and on [Braille-based](https://en.wikipedia.org/wiki/Braille_display) tactile devices. CSS also has rules for alternate formatting if the content is accessed on a [mobile device](https://en.wikipedia.org/wiki/Mobile_device).

**Javascript**

**JS**, is a [programming language](https://en.wikipedia.org/wiki/Programming_language) that conforms to the [ECMAScript](https://en.wikipedia.org/wiki/ECMAScript" \o "ECMAScript) specification. JavaScript is [high-level](https://en.wikipedia.org/wiki/High-level_programming_language), often [just-in-time compiled](https://en.wikipedia.org/wiki/Just-in-time_compilation), and [multi-paradigm](https://en.wikipedia.org/wiki/Programming_paradigm). It has [curly-bracket syntax](https://en.wikipedia.org/wiki/List_of_programming_languages_by_type#Curly-bracket_languages), [dynamic typing](https://en.wikipedia.org/wiki/Dynamic_typing), [prototype-based](https://en.wikipedia.org/wiki/Prototype-based_programming) [object-orientation](https://en.wikipedia.org/wiki/Object-oriented_programming), and [first-class functions](https://en.wikipedia.org/wiki/First-class_function).

Alongside [HTML](https://en.wikipedia.org/wiki/HTML) and [CSS](https://en.wikipedia.org/wiki/CSS), JavaScript is one of the core technologies of the [World Wide Web](https://en.wikipedia.org/wiki/World_Wide_Web). JavaScript enables interactive [web pages](https://en.wikipedia.org/wiki/Web_page) and is an essential part of [web applications](https://en.wikipedia.org/wiki/Web_application). The vast majority of [websites](https://en.wikipedia.org/wiki/Website) use it for [client-side](https://en.wikipedia.org/wiki/Client-side) page behavior, and all major [web browsers](https://en.wikipedia.org/wiki/Web_browser) have a dedicated [JavaScript engine](https://en.wikipedia.org/wiki/JavaScript_engine) to execute it.

As a multi-paradigm language, JavaScript supports [event-driven](https://en.wikipedia.org/wiki/Event-driven_programming), [functional](https://en.wikipedia.org/wiki/Functional_programming), and [imperative](https://en.wikipedia.org/wiki/Imperative_programming) [programming styles](https://en.wikipedia.org/wiki/Programming_paradigm). It has [application programming interfaces](https://en.wikipedia.org/wiki/Application_programming_interface) (APIs) for working with text, dates, [regular expressions](https://en.wikipedia.org/wiki/Regular_expression), standard [data structures](https://en.wikipedia.org/wiki/Data_structure), and the [Document Object Model](https://en.wikipedia.org/wiki/Document_Object_Model) (DOM). However, the language itself does not include any [input/output](https://en.wikipedia.org/wiki/Input/output) (I/O), such as [networking](https://en.wikipedia.org/wiki/Computer_network), [storage](https://en.wikipedia.org/wiki/Data_storage), or [graphics](https://en.wikipedia.org/wiki/Computer_graphics) facilities, as the host environment (usually a web browser) provides those APIs.

**Steps to access my page**

1. <https://github.com/jpsujithashree/ide>, this is the link to view my project that is uploaded in Github platform.
2. As I am a beginner to Web development, I have created the front end of the IDE using the languages html,css.

**THANK YOU**