



**LOKNETE HON.HANMANTRAO PATIL CHARITABLE TRUST'S
ADARSH INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE,VITA**

(NAAC Accredited Institute)

A/P: Khambale(Bha) Near Karve MIDC, Vita **Tal:** Khanapur **Dist:** Sangli.415311

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Hon.Adv.Sadashivrao H Patil

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Ex.MLA. Founder

President

Principal



Academic Year: 2023-24	Project Synopsis		Sem-VI
	Department : Computer Science and Engineering		Date of Preparation:
Roll No	CS3011,CS3012,CS3013,CS3014	Class	TY B.Tech
Project Title	Online Code Editor		
Student Name	1.Pranav Prabhakar Mandale. 2 Suraj Appa Bansode. 3 Saurabh Sadashiv Mali. 4 Vighnesh Mashnu Pawar.		

Introduction:

The online code editor environment includes features for mixed-signal design entry, design debug, simulation management, analysis, and reporting. For layout, Custom Compiler provides fast and user-friendly polygon editing features and boosts productivity with its pioneering visually-assisted automation flow.

Online code editor includes built-in verification features to catch physical and electrical errors during layout. The online Compiler design environment makes it easy to communicate design intent and achieve analog design closure, with support for templates and early parasitic simulation.

Literature Review:

Sr.no	Author	Title of Paper	Year	Advantages
1.	Rushikesh Kasture	Web Services based Source Code Editor Integrate with Community Question Answer	2020	<ul style="list-style-type: none">➤ Enhanced Developer Productivity: By minimizing the need to switch between the editor and a web browser to seek answers or solutions.➤ Time Savings: No need of installation of another softwares to run different languages



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2.	Rodrigo Laiola	Rethinking Online Code Editors for Authoring Web-Based Multimedia Presentations	2016	<ul style="list-style-type: none">➤ Dynamic Code Modification: The online code editor allows for dynamic identification and patching of modifications in the source code.➤ Real-Time Editing: The ability to make modifications in real-time without restarting the playback provides an efficient and smooth development experience.➤ Enhanced Learning Experience: The presented functionalities aim to make learning to code more attractive.
3.	Warangkhan Kimpan	Online code editor on Private cloud computing	2013	<ul style="list-style-type: none">➤ Platform Independence: The Online Code Editor allows programmers to write code without any specific platform requirements.➤ Cloud-Based Accessibility: Operating on private cloud computing, the editor provides accessibility from any device with internet connectivity.



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Relevance of the Work:

Working on an online code editor project holds significant relevance in today's dynamic software development landscape. These platforms offer unparalleled accessibility, enabling developers to write, edit, and execute code from any location with internet access, fostering remote work and collaboration. Their collaborative features, such as real-time editing and version control integration, enhance team productivity and streamline workflows. Moreover, online code editors serve as valuable educational tools, providing beginners with a platform to learn programming languages and offering advanced features like syntax highlighting and code completion. Integration with various development tools and services further enhances their utility, facilitating seamless transitions from coding to deployment. Customization options, scalability, and the potential for innovation make these projects essential for catering to diverse developer needs and driving advancements in development tooling.

Proposed Work:

- 1]The proposed work for an online code editor project entails a structured approach spanning several key phases.
- 2]Initially, thorough requirements gathering is essential to understand the diverse needs of potential users, including developers, educators, and collaborative teams. Following this, a detailed design and architecture phase is crucial, delineating the framework for scalability, security, and user experience.
- 3]Development then proceeds incrementally, starting with fundamental features such as text editing and syntax highlighting before advancing to more complex functionalities like code execution and collaboration tools.
- 4]Rigorous testing ensues, encompassing unit tests, integration tests, and user acceptance tests, ensuring stability and usability. Subsequently, deployment to a production environment demands meticulous attention to compatibility across browsers and devices.



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Proposed Methodology:

The proposed methodology for the online code editor project involves an iterative and collaborative approach aimed at delivering a robust and user-centric platform. Initially, the Agile methodology will be adopted, breaking down the project into manageable sprints with clear objectives and timelines.

Each sprint will focus on specific features or components of the code editor, allowing for continuous feedback and adaptation. Regular meetings, such as daily stand-ups and sprint reviews, will facilitate communication and transparency among team members. Concurrently, the Scrum framework will guide the project management process, with roles defined, including product owner, Scrum master, and development team, ensuring accountability and alignment with project goals.

Emphasis will be placed on prioritizing features based on user feedback and market research, ensuring that the most valuable functionalities are developed first. Additionally, continuous integration and deployment practices will be implemented to streamline the development process and maintain code quality.

HW/SW Requirement:

HARDWARE REQUIREMENT:

RAM	- 1GB
Space	- 1GB HDD(Min)
Hard Disk	- 64 GB (Min)

SOETWARE REQUIREMENT:

Operating System	: Windows 7 and above
Front End language	: HTML, CSS, JavaScript, Bootstrap
Back-End language	: node.js
Tool	: Visual Studio Code



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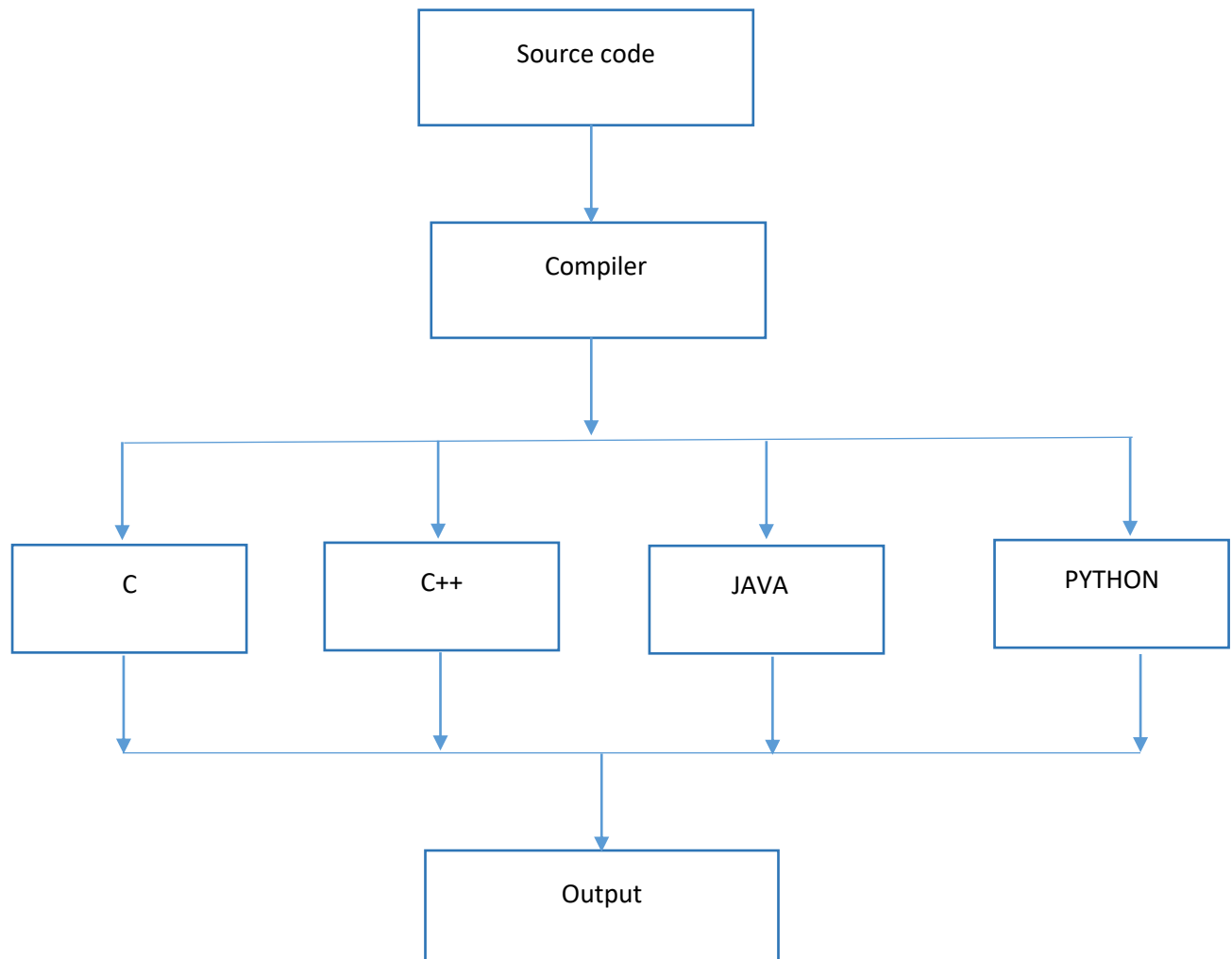
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Flowchart/Algorithm:



References:

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- Guimarães, Rodrigo Laiola. "Rethinking Online Code Editors for Authoring Web-Based Multimedia Presentations." *2016 IEEE International Symposium on Multimedia (ISM)*. IEEE, 2016.
- Kimpan, Warangkhan, Theerasak Meebunrot, and Busaya Sricharoen. "Online code editor on Private cloud computing." *2013 International Computer Science and Engineering Conference (ICSEC)*. IEEE, 2013.



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