Project Proposal/Synopsis

**2023-24**

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| **Team Details** | | | | |
| **S.No** | **Roll Number** | **Nam e** | **Email** | **Contact number** |
| **1** | 2061866 | Mohit Pargaie (TL) | Mohitpargaie01@gmail.com | 8958790522 |
| **2** | 2061897 | Pulkit Chausali | pulkitchausali.22@gmail.com | 80061 92059 |
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| **Project Details** | | | | |
| **Title:** CodeTensai | | | | |
| **Technologies to be used:**  Front-end: React.js , Bootstrap  Back-end: Node.js, Express.js  Database: Mongodb  Ai-integration: OpenAi | | | | |
| Brief Description of the Project (Point-wise):   * User Interface: The webapp will provide an interactive user interface where the user can enter his/her code snippet. There will be another option to enter the problem which is occurring with the code or what the user wants to do with the code * Functionalities: The Model provides certain functionalities and we will introduce new features with every new implementation of our project. First of all, the webapp will be able to analyze the code and send back a response window which will be displayed to the user. The response will consist of the potential problems that might be the source of the problem and it will also provide a improved or corrected version of the code     These are some of the functionalities that we will be implementing into our system 🡪   1. Error detection and correction in code 2. Converting the code from one language to another 3. Logical Error detection 4. Code optimization 5. Potential Threats and vulnerabilities with the code  * Integration with ChatGPT API:   Obtain access to the ChatGPT API or a similar code analysis API that can detect syntax and logic  errors in code.  Implement logic in your backend to send user-provided code snippets to the API for analysis.  Parse the API response to extract error messages and corrected code.  Error Handling and Display:  Display the detected errors and corrected code to the user through the frontend UI.  Highlight error lines or provide clear explanations for easier understanding.  Security Measures:  Implement security measures to prevent abuse and ensure the safe execution of user-provided  code. Use sandboxing techniques if necessary.   * Testing:   Conduct thorough testing to verify the accuracy of error detection and the correctness of the  corrected code.  Test edge cases, different programming languages, and a variety of code examples.     * User Feedback system: The webapp will also take some feedback from the user on whether the   changes in the code were helpful or not. | | | | |
| **Whether compared with any existing system: (Give URL /link or citation)** | | | | |
| **Whether discussed with any Faculty Member (NAME): No** | | | | |

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| **Whether proposed work is extension of internship work: No** |
| **Any previous work with proposed technologies: Weather application and expense tracker** |
| **Whether crude DFD/ ERD are prepared: No** |

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| **Planning Details (July-23 to Apr-24)** | | |
| **Phase** | **From** | **To** |
| Literature Survey | 21 August 2023 | 24 August 2023 |
| Design | 25 august 2023 | 1 September 2023 |
| Implementation-1 | 2 September 2023 | 30 October 2023 |
| Implementation-2 | 1 November 2023 | 31 December 2023 |
| Implementation-3 | 1 January 2024 | 1 March 2024 |
| Testing | 2 March 2024 | 10 April 2024 |
| Submission | 15 April 2024 | |

**WORK DISTRIBUTION PLAN**

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| PROJECT ID: - | | | TEAM LEADER: - | | |
| PROJECT TITLE: - | | | | | |
| S.No | MODULE NAME(S) | FUNCTIONALITIES | | TECHNOLOGIES USED | TEAM MEMBER |
| **1.** | App Frontend |  | |  |  |
| **2.** | App backend |  | |  |  |
| **3.** | Database and Api setup |  | |  |  |
| **4.** | Testing |  | |  |  |
| **5.** | Design |  | |  |  |
| **…** |  |  | |  |  |

**Remember:**

* Permanent PROJECT ID would be provided only after acceptance of proposal.
* If more than one person is allocated on a module, it should be mentioned who is dealing with which functionalities of the module.
* Create this distribution PLAN in detail.
* Distribution of workload should be balanced among team members.