**Academic Year : 2021-2022 Course: BTech CSBS Semester: V**

**Project Title: Sorting Algorithm Visualiser.**

**Project Team Members**

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| --- | --- | --- | --- |
| **Roll No** | **Name** | **Mobile No** | **Email** |
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**Mentor Name: Prof. Mohini Reddy Department:**

**Note:**

* **Marks per week (out of 10)**
* **Total weeks to be considered 10**

**Rubrics for Evaluation:**

1. **Punctuality & Ethics : 4 Marks**
2. **Efforts and Quality : 6 marks**

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| **Week No- 1 Date of Meeting: 31st August, 2021** | | | |
| **Planned Milestones** | **Discussion** | **Status of Completion** | |
| **Done** | **Not Done** |
| **RESEARCH**   * Project Scope * Strategy Research | * Historic Research review * Feasibility of visualizing algorithms * Finalising the number of algorithms   After intensive research, we concluded:   * There are a lot of learners with misconceptions about the basics of arrays and algorithms which lead to incomplete knowledge. * There have been previous attempts at making algorithm visualizers, but each have their own drawbacks. * Implementing 5 basic algorithms would be feasible. | Done |  |
| **Mentor’s Signature & Marks:** | | | |
| **Project Team's Signature: (1): (2): (3): (4):** | | | |
|  | | | |
| **Week No- 2 Date of Meeting:** | | | |
| **Planned Milestones** | **Discussion** | **Status of Completion** | |
| **Done** | **Not Done** |
| **Developing a Demo for UI & Researching the algorithms**   * UI: HTML, CSS * Backend: JS, PHP | * Reviewed and revised HTML, CSS, and JS documentation. * Created a dummy UI using PhotoShop. * Finalised the 5 algorithms: Merge sort, Quick sort, Selection sort, Insertion sort, Bubble sort. * Reviewed the complexities of each algorithm. * Finalised Xampp as the server for the project and php as the scripting language for backend integration. | **Done** |  |
| **Mentor’s Signature & Marks** | | | |
| **Project Team's Signature: (1): (2): (3): (4):** | | | |
| **Week No- 3 Date of Meeting:** | | | |
| **Planned Milestones** | **Discussion** | **Status of Completion** | |
| **Done** | **Not Done** |
| **M1 Presentation:**   * Problem Definition * Literature Review * Algorithm Research * Algorithm Selection * UML Diagrams * Implementation Plan * Action Plan * Future work | * Created Usecase, Sequence and Class diagrams for the system. * Identified and finalised the development model for our project. * Finalised the implementation plan for the rest of the project. * Created an estimated timeline for the completion of the rest of the project. | **Done** |  |
| **Mentor’s Signature & Marks:** | | | |
| **Project Team's Signature: (1): (2): (3): (4):** | | | |
|  | | | |
| **Week No- 4 Date of Meeting:** | | | |
| **Planned Milestones** | **Discussion** | **Status of Completion** | |
| **Done** | **Not Done** |
| **Implementation of algorithms**   * **Insertion sort** * **Quick sort**   **UI Improvements**  **Host environment** | * **Implemented insertion sort algorithm using HTML and JS.** * **Implemented Quick sort algorithm too.** * **Made some minor improvements to the user interface in the CSS stylesheet.** * **Created the XAMPP server environment to run the project.** | **Done** |  |
| **Mentor’s Signature & Marks** | | | |
| **Project Team's Signature: (1): (2): (3): (4):** | | | |
| **Week No- 5 Date of Meeting:** | | | |
| **Planned Milestones** | **Discussion** | **Status of Completion** | |
| **Done** | **Not Done** |
| **Implementation of algorithms**   * **Merge sort** * **Selection sort**   **UI Improvements**  **Created login page** | * **Implemented Merge sort algorithm using HTML and JS.** * **Implemented Selection sort algorithm too.** * **Made some changes to the user interface in the CSS stylesheet.** * **Created the login and sign-up page.** | **Done** |  |
| **Mentor’s Signature & Marks:** | | | |
| **Project Team's Signature: (1): (2): (3): (4):** | | | |
|  | | | |
| **Week No- 6 Date of Meeting:** | | | |
| **Planned Milestones** | **Discussion** | **Status of Completion** | |
| **Done** | **Not Done** |
| **Database Integration**  **Project Documentation**  **Project Testing** | * **Implemented a storing functionality to save media files for keeping a record of previous visualisations.** * **Tested all the functionalities implemented in our project against various test cases.** * **Documented the entire process of implementation of the project.** | **Done** |  |
| **Mentor’s Signature & Marks** | | | |
| **Project Team's Signature: (1): (2): (3): (4):** | | | |