

# EDITHUB

Submitted for the partial fulfilment of the Degree  
of  
Bachelor of Technology  
(Computer Science)



**Submitted By:**

Amitoj Singh

1410955

**Submitted to:**

Prof. Parminder Singh

Department of Computer Science

**Guru Nanak Dev Engineering College**

Ludhiana 141006.

---

## **Abstract**

EditHub is easy to use for beginners and highly powerful editor for advanced users. It comes with syntax highlighting for many languages including PHP, JavaScript, HTML, and CSS. It comes with a very intuitive user interface that makes it super easy to browse files and work on projects. Instead of first cloning or downloading the files, updating the code for bug fix issues, etc. and then pushing it back to your github account, it does all this work in one-go. Once authenticated, you can upload files either from your local machine or via your GitHub account.

After uploading the files, you can open a specific project and view all the files simultaneously in different tabs. The beginner friendly interface has a black screen that supports distraction free editing mode. The turbolinks make the navigation quick, smooth and easy.

This feature-rich editor provides lightweight fuzzy-search library, highlight matching parenthesis and live syntax checker. It provides GitHub omni Authentication, save and push support. It has a drag and drop text using the mouse. It makes it really tough to write a messy code due to its auto-indentation feature. The line-wrapping and code-folding enhance the readability of the code. It enables you to see the preview update of your HTML documents live in a different browser window. This compact editor can handle large files upto the size of 4 million lines.

## **Acknowledgement**

I am highly grateful to the Dr. M.S. Saini , Director, Guru Nanak Dev Engineering College (GNDEC), Ludhiana, for providing this opportunity to carry out the major project work at Ishwerdas.

The constant guidance and encouragement received from Prof. Parminder Singh, H.O.D. Cse Department, GNDEC Ludhiana has been of great help in carrying out the project work and is acknowledged with reverential thanks.

I would like to express a deep sense of gratitude and thanks profusely to Inderpreet Singh, for without his wise counsel and able guidance, it would have been impossible to complete the project in this manner.

I express gratitude to other faculty members of Computer Department of GNDEC for their intellectual support throughout the course of this work.

Finally, I am indebted to all who have contributed in this report work.

**Amitoj Singh**

# Table of content

|  |          |
|--|----------|
| <b>Chapter-1 Introduction to company</b> | <b>1</b> |
| <b>Chapter-2 Introduction to project</b> | <b>2</b> |
| 2.1 Overview                             | 2        |
| 2.2 User-Requirement analysis            | 3        |
| 2.2.1 Software Requirement Specification | 3        |
| 2.2.2 SDLC Model                         | 3        |
| 2.2.3 SDLC Iterative Model               | 3        |
| 2.3.1 Introduction                       | 5        |
| 2.3.2 Cost Effectiveness                 | 5        |
| 2.4.4 Time Feasibility                   | 6        |
| 2.4.5 Software & Hardware availability   | 6        |
| 2.4 Objectives of project                | 8        |
| <b>Chapter-3 Product Design</b>          | <b>9</b> |
| 3.1 Product Perspective                  | 9        |
| 3.2 Product Functions                    | 9        |
| 3.3 Constraints                          | 10       |
| 3.4 Data Flow Diagram/ Data Dictionary   | 11       |
| 3.4.1 Data Flow Diagram                  | 11       |
| 3.4.2 Data Dictionary                    | 12       |
| 3.4.3 Flow Chart                         | 13       |
| 3.4.4 Use Case model                     | 14       |
| 3.5 Database Design                      | 15       |
| 3.6 Table Structure                      | 16       |
| 3.7 E-R Diagrams                         | 18       |

|   |           |
|---|-----------|
| 3.8 Specific Requirements                       | 21        |
| 3.8.1 Software Requirements                     | 21        |
| 3.8.2 Hardware Requirements                     | 21        |
| 3.8.3 Maintainability Requirement               | 22        |
| 3.8.6 Security Requirement                      | 22        |
| <b>Chapter 4 Development and Implementation</b> | <b>23</b> |
| 4.1 Introduction to languages                   | 23        |
| 4.1.1 Ruby on rails                             | 23        |
| 4.1.2 Javascript                                | 25        |
| 4.1.3 SQLite                                    | 27        |
| 4.1.4 Bundler package manager                   | 28        |
| 4.1.5 Sass (Syntactically Awesome StyleSheets)  | 29        |
| 4.2.1 Fuse.js                                   | 30        |
| 4.2.2 Ace Editor API                            | 31        |
| 4.2.3 Puma server                               | 33        |
| 4.2.4. Github API                               | 34        |
| 4.3 Coding standards of Language used           | 35        |
| 4.4 Implementation with screenshots/ figures    | 37        |
| 4.5 Testing                                     | 43        |
| 4.5.1 Test-driven development                   | 43        |
| <b>Chapter-5 Conclusion and future scope</b>    | <b>47</b> |
| 5.1 Conclusion                                  | 47        |
| 5.2 Future Scope                                | 48        |
| <b>References</b>                               | <b>49</b> |

## List of figures

|   |    |
|---|----|
| Figure 1: Iterative model                       | 4  |
| Figure 2: DFD level 0                           | 11 |
| Figure 3: DFD level 1                           | 12 |
| Figure 4: Flowchart for edithub                 | 14 |
| Figure 5: Use case model 1                      | 15 |
| Figure 6: Use case model 2                      | 15 |
| Figure 7: Database design                       | 16 |
| Figure 8: User to repositories E-R diagram      | 19 |
| Figure 9: User to git repositories E-R diagram  | 20 |
| Figure 10: Repositories to user E-R diagram     | 20 |
| Figure 11: Git repositories to user E-R diagram | 21 |
| Figure 12: Homepage                             | 37 |
| Figure 13: Uploading repository                 | 38 |
| Figure 14: Upload via GitHub                    | 38 |
| Figure 15: Index page                           | 39 |
| Figure 16: Edit mode                            | 39 |
| Figure 17: Password retrieval                   | 40 |
| Figure 18: GitHub login                         | 40 |
| Figure 19: EditHub Sign up                      | 41 |
| Figure 20: Edit mode 2                          | 41 |
| Figure 21: Commit file                          | 42 |
| Figure 22: GitHub push                          | 42 |

**List of tables**

|                       |    |
|-----------------------|----|
| Table 1: Git repos    | 16 |
| Table 2: Repositories | 17 |
| Table 3: Users        | 17 |