**Software Requirements Specification**

**for**

**C-Complete**

**Version 1.0**

**Prepared by**

**Group Name: B3**

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# 1. Introduction

This document describes the software system functional and non-functional requirements for the Coding Website application that is planned for effective learning of C programming Language.

## Document Purpose

Coding Website is an application that provides an effective platform to learn C Programming and to analyze the skills and capabilities of each Individual.The purpose of the project is to provide convenience to the Users by including all the programming tools under one roof thereby avoiding the need to use multiple applications.This makes it easy for the Users to learn and test simultaneously as there is no need to download any external compiler or references.

The purpose of this SRS document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality

## Product Scope

This project is a complete website for the people with coding skills and the

ones eagerly waiting to learn coding. The users can learn basics about the language in which they will be coding and start writing their codes. These codes are compiled and run online and the user can easily get outputs and errors regarding the same. Learning is made easy and convenient by providing everything at one place. Skills can be analyzed through various quizzes and concepts can be made clear by going through the Documentation.

## Intended Audience and Document Overview

The intended Audience is the Client and the Professor. The SRS document will guide you the product perspective, product functionality, Characteristics, Operating Environment, Design and implementation constraints. All this will give an Overview of how the application is developed and describe the various features of the application. It will also guide through the benefits of the application.

## Definitions, Acronyms and Abbreviation

|  |  |
| --- | --- |
| DBMS | Database Management System |
| HTML | Hyper Text Mark-up Language |
| IEEE | Institute of Electrical and Electronics Engineers |
| SRS | Software Requirements Specification |
| UML | Unified Modelling Language |

## Document Conventions

Convention for Main Title

* Font face : Arial
* Font style : Bold
* Font size : 14

Convention for Main Body

* Font face : Arial
* Font style : Bold
* Font size : 12

## References and Acknowledgment

* IEEE Recommended Practice for Software Requirements Specifications, IEEE Std. 830-1998.
* IEEE Guide for Developing System Requirements Specifications, IEEE Std. 1233-1998.

# Overall Description

## Product Perspective

The main perspective of the project is to make learning easy through various references and tests and provide all the learning tools at a single place.The aim of the project is to make all the programming concepts and terminologies clear thereby enabling the user to move on a fast learning track.The main objective is to teach programming in a simple way and also give the user a chance to analyze his own skills.

## Product Functionality

The major functions of the application are :

1. The website will have an online compiler for the code without any need to download any compilers on your machine.
2. Documentation of the language,code snippets and books downloading feature is available.
3. Quizzes for testing the coding and language skills of the user.
4. The user have to be registered for using all the above features.So a seperate login page using userid and password.Password forget option to recover your password by theuser getting an email containing the same.
5. Signup page for new users.

## Users and Characteristics

* Knowledgeable user
* Novice User
* Expert Users

## Operating Environment

The product will be Operating in Windows Environment. Coding Website is an application that shall operate in various browsers, for a model we are taking Microsoft Internet Explorer, Google Chrome, Mozilla Firefox. The basic input devices required are keyboard and mouse and output device, monitor.

## Design and Implementation Constraints

* The device used to run the application must have an active Internet Connection..
* The device used to run the application must have an active MySQL Connection.
* If the number of users exceed a limit, the volume of data might slow down the application working.
* The application can be used only by the users who are comfortable with English Language
* The developed system should run under any platform (Unix, Linux, Mac, Windows etc) that contains a web browser which supports HTML,CSS, PHP, JavaScript.

## User Documentation

The user of the application must be comfortable with English Language.The user should also be comfortable with the use of various input devices like mouse and keyboard.

## Assumptions and Dependencies

* Administrator is created in the system already.
* Roles and tasks are predefined.
* The details related to the User provided manually.
* Not dependent on external factors or previous projects.

# Specific Requirements

## External Interface Requirements

### User Interfaces

* Each part of the user interface should to be as user friendly as possible.
* The fonts and buttons used should to be very fast and easy to load on web pages
* Login page should contain a direct link to the registration page for a new user.
* Prompts for invalid or incomplete fields for data entry.
* Messages for successful data entry..
* Buttons to go back and forth anywhere in the system.

### Hardware Interfaces

All the PC’s supporting MySQL can use this application.

### Software Interfaces

Operating System : Unix, Linux, Windows etc..

Development tool : PHP,HTML,CSS,JavaScript,

Database : MySQL

### Communications Interfaces

The communication standards used are

* HTTP
* Web Browser( Mozilla/Google Chrome/Internet Explorer)

In case the user forgets his password,then the application Coding Website will send an email containing the user's password after authenticating the provided details.

## Functional Requirements

* Register New User

A new User should be Registered with a new ID and password which should be stored in the database.

* Login

The user should be able to login into the system using his ID and password and should have access to only his records.

* Documentation

The user should be able to view the Documentation

* Quiz

The User should be able to take the Quiz

* Books

The user should be able to Download the books.

* Compiler

The user should be able to compile the code.

* Logout

The user should be able to exit the system.

# Other Non-functional Requirements

## Performance Requirements

* System should be ready for operation in less than 30 seconds
* Log in validation should be fast and accurate.
* The System should release database connection as soon as it has completed its operation.
* Response time while switching between processes should be less than 5 seconds.
* Loading of the pages should take less than 10 secs.

## Safety and Security Requirements

* All fields should be filled while adding new record
* System should check if records of a given user exist in the database.
* User’s ID and password should be properly verified.

## Software Quality Attributes

* Portability: The system is developed for Learning purpose, so it is portable.
* Availability: This system will available only until the system on which it is install, is running.
* Reliability: The system developed does not depend on any external factors and so it reliable,given any environmental conditions.
* Flexibility : The system is flexible across different Web Browsers like Google Chrome,Mozilla Firefox etc

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**Appendix A – Data Dictionary**

*<Data dictionary is used to track all the different variables, states and functional requirements that you described in your document. Make sure to include the complete list of all constants, state variables (and their possible states), inputs and outputs in a table. In the table, include the description of these items as well as all related operations and requirements.>*

**Appendix B - Group Log**

*<Please include here all the minutes from your group meetings, your group activities, and any other relevant information that will assist the Teaching Assistant to determine the effort put forth to produce this document>*