**A Software Requirement Specification Document**

**For**

**BitCode Tutorials Website**

|  |  |
| --- | --- |
| 1.Introduction | 3 |
| 2.Overview | 4 |
| 3.Functional Requirements | 5 |
| 4.Non-Functional Requirements | 6 |
|  |  |

**Index**

**1.Introduction**

BitCode Tutorials is an online learning platform that provides various courses on a variety of programming languages. These tutorials are developer documentation based, with the best interpretation of technical jargons into simplified layman terms.

The detailed requirements and specifications for the development of BitCode Tutorials website are provided in this document.

**1.1Purpose**

BitCode Tutorials website aims to create a E-learning programming tutorials website to provide free, extensive and accurate knowledge to the learners at one single place.

**1.2Scope**

This web application is an online E-learning tutorials website that helps programmers with extensive knowledge of various programming languages, along with plenty of coding examples. Each user can signup to this website and keep a track record of their learning journey.

There are options to subscribe for premium contents of this tutorials website which provides user with exclusive content. A course purchase history is maintained for every subscription made.

**2.Overview**

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product.

**2.1Overall Description**

This programming tutorials website provides plenty of code snippets to make user familiar with the programming environment and programming syntax. Each code snippet is followed by a in depth explanation.

The content is thoroughly tested and designed in a manner that assures easy understanding to leaners.

An online coding compiler is made available for users with paid subscriptions for immediate hands on.

**3.Functional Requirements**

4.1Access Website

New users can register to this website for free and start their programming journey, or simply browse through the website for free content without registration.

4.2User Profile

Each user has a personalized dashboard that displays user specific information like course purchase history, learning track record, etc.

Various personal details like profile name, password, etc can be updated via this dashboard as well.

4.1Security

The system’s back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like the internet.

4.1Security

The system’s back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like the internet.

4.1Security

The system’s back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like the internet.

4.1Security

The system’s back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like the internet.

4.1Security

The system’s back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like the internet.

**4.Non-Functional Requirements**

4.1Security

The system’s back-end servers shall only be accessible to authenticated administrators. Sensitive data will be encrypted before being sent over insecure connections like the internet.

4.2 Availability

The system should be available at all times, meaning the user can access it using a web browser, only restricted by the downtime of the server on which the system runs. In case of an of a hardware failure or database corruption, a replacement page will be shown. Also, in case of a hardware failure or database corruption, backups of the database should be retrieved from the server and saved by the administrator. Then the service will be restarted. It means 24 X 7 availability.

4.3 Reliability

The reliability of the overall program depends on the reliability of the separate components. The main pillar of the reliability of the system is the backup of the database which is continuously maintained and updated to reflect the most recent changes. Thus, the overall stability of the system depends on the stability of container and its underlying operating system.

4.4 Maintainability

A commercial database is used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the program will be done. Also, the software design is being done with modularity in mind so that maintainability can be done efficiently.

4.5 Accessibility

The system will be a web-based application it is going to be accessible on the web browser.

4.6 Back up

We will take a backup in our system database. In order to enable the administrator and the user to access the data from our system.

4.7 Performance

The product shall be based on web and has to be run from a web server. The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run. The performance shall depend upon hardware components of the client/customer.

4.8 Performance

The source code developed for this system shall be maintained in configuration management tool.