Software Requirements Specification

for

LearningJam

**Version 1.0 approved**

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**Table of Contents**

**Table of Contents ii**

**Revision History ii**

**1. Introduction 1**

1.1 Purpose 1

1.2 Document Conventions 1

1.3 Intended Audience and Reading Suggestions 1

1.4 Product Scope 1

1.5 References 1

**2. Overall Description 2**

2.1 Product Perspective 2

2.2 Product Functions 2

2.3 User Classes and Characteristics 2

2.4 Operating Environment 2

2.5 Design and Implementation Constraints 2

2.6 User Documentation 2

2.7 Assumptions and Dependencies 3

**3. External Interface Requirements 3**

3.1 User Interfaces 3

3.2 Hardware Interfaces 3

3.3 Software Interfaces 3

3.4 Communications Interfaces 3

**4. System Features 4**

4.1 System Feature 1 4

4.2 System Feature 2 (and so on) 4

**5. Other Nonfunctional Requirements 4**

5.1 Performance Requirements 4

5.2 Safety Requirements 5

5.3 Security Requirements 5

5.4 Software Quality Attributes 5

5.5 Business Rules 5

**6. Other Requirements 5**

**Appendix A: Glossary 5**

**Appendix B: Analysis Models 5**

**Appendix C: To Be Determined List 6**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
|  |  |  |  |
|  |  |  |  |

# Introduction

## Purpose

*LearningJam is a web application on which anyone can learn anything they want to learn, like academics, co-curriculum etc. Apart from that anyone can share anything one want to share regarding what they are good at, like if a tutor wants to upload notes or video lectures for a particular subject he/she can upload them and those who wish to learn can access the same. Also, it has a library feature which contains multiple where resources can be shared amongst tutors and students.*

## Document Conventions

*Main Section Titles*

* *Font: Arial*
* *Face: Bold*
* *Size: 11*

*Sub Section Titles*

* *Font: Times New Roman*
* *Face: Bold*
* *Size: 14*

*Other Text Explanations*

* *Font: Arial*
* *Face: Normal*
* *Size: 11*

## Intended Audience and Reading Suggestions

***Clients:*** *This portal shares the problem of resource sharing and provides one single platform for the same, keeping the whole procedure completely hassle-free. And this document very simplistically explains the detailed plan of the product under respective headings and subheadings.*

***Developers:*** *This document gives an idea of the requirements for the project development and its basic and usefulness to the developers, providing a clear and elaborate referral as to what is expected from this product. The methodologies can be quickly understood and enabled through a thorough, careful reading of the same.*

## Product Scope

*In Scope:*

1. *Two different types of accounts (Tutor/Learner).*
2. *Different types of courses or skill categories.*
3. *Registration for a particular account.*
4. *Contact details of tutors and admin.*
5. *Integrated Library.*
6. *Syncing with your other social media accounts.*

*Out of Scope:*

1. *No Payment Gateway, as of now, there will be no charges for any courses.*
2. *No verifying of data uploaded by anybody (for now).*

## References

* [*http://www.vceit.com/p/SRS-sample.htm*](http://www.vceit.com/p/SRS-sample.htm)
* *1999 by Karl E. Wiegers.- document on SRS*
* [*https://www.slideshare.net/sinhaprita/final-srs-of-academic-a-webpage-based-android-app*](https://www.slideshare.net/sinhaprita/final-srs-of-academic-a-webpage-based-android-app)
* [*https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database*](https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database)

# Overall Description

## Product Perspective

*This product or website is basically made to help the individuals who are interested in learning a particular skill, or have a hobby but have no tutors or resources to learn that, and also for the people who have the resources but don't know about it, as it provides the contact details of the tutors.*

## Product Functions

*LearningJam supports the following use cases:*

|  |  |  |
| --- | --- | --- |
| *Class of use cases* | *Use cases* | *Description of use cases* |
| *Use case related to User* | *Registration* | *Register to a particular account type.* |
| *Change Profile* | *Make changes to user profile.* |
| *Login* | *Login to a particular account* |
| *Use case related to Tutor* | *Uploading pdf* | *Page where one can upload pdf related to their skills.* |
| *Uploading videos* | *Page where one can upload videos related to their skills.* |
| *Use Case related to Student* | *Accessing/Downloading pdf* | *Accessing or downloading pdfs of particular course uploaded by tutor.* |
| *Accessing/Downloading videos* | *Accessing or downloading videos of particular course uploaded by tutor.* |
| *Use case related to Admin* | *Admin Login* | *Login to a different page from where one can access anything.* |
| *Make Changes* | *Make changes to any material on the website.* |
| *Use case related to Updates* | *Update course* | *Notification related to most recent updates.* |
| *Update news feed* | *Displays news about new skills or sourses uploaded on the home page of user.* |
| *Use case related to Library* | *Accessing Library* | *How to enter and exit library and access to books, notes, etc.* |
| *Uploading material* | *Uploading any books, notes, etc.* |
| *Use Case related to Social Media* | *Syncing with social media.* | *Syncing your account to your social media accounts* |
| *Use case related to Contacts* | *Contact us* | *Can contact admin.* |
| *Contact tutor* | *Can contact tutor of particular course.* |

## User Classes and Characteristics

* *Anyone can use the application.*
* *The user can be a student or a tutor.*
* *The tutor should share contact details.*
* *Tutor should not upload obscene or inappropriate material.*

## Operating Environment

*Principal actors in LearningJam are tutors, learners and admins.*

## Design and Implementation Constraints

* *Authenticity and plagiarism cannot be monitored by the admin*
* *The users cannot be blocked if needed*

## User Documentation

*The product is under development stage and requires a complete implemented prototype to explain the user documentation. Once the prototype is designed and implemented online manuals, user manuals can be provided.*

## Assumptions and Dependencies

* *Full working of the Application is dependent on the availability of Internet connection.*
* *Authenticity and relevance of resources provided by the tutors depends on their wit.*

# External Interface Requirements

## User Interfaces

*The user screen is complete one-page display where all the tabs are mentioned at the top and clicking each tab opens up the page with the details of the page and having the tab options on the top so that user can easily move from one tab to other without a need to go back every time.*

## Hardware Interfaces

* *A computer system*

## Software Interfaces

|  |  |
| --- | --- |
| ***Software used*** | ***Description*** |
| *Operating system* | *Platform-independent* |
| *Database* | *MySQL* |
| *Front-end* | *HTML, XML, CSS* |
| *Back-end* | *PHP* |

## Communications Interfaces

*The product will use a valid email for authentication procedure. It will support all the web browsers. Communication standard used will be HTTP.*

# System Features and Use cases

*Use case related to User:*

***Use Case 1: Registration***

*Primary Actor: User (Student/Tutor)*

*Pre Condition: Internet connection available.*

*Main Scenario:*

1. *User visits the website LearningJam.*
2. *User specifies his/her registration category (Student/Tutor).*
3. *System creates the accounts and redirects them to their profile home page.*
4. *The user is now free to access stuff/upload info view notifications etc.*

*Alternate Scenario:*

1. *Network failure.*
2. *Registration failure.*

***Use Case 2: Change Profile***

*Primary Actor: User*

*Pre Condition: User Logged in.*

*Main Scenario:*

1. *User initiates the profile change command.*
2. *User is prompted for new data.*
3. *Validation is done.*
4. *New data is registered with website.*

*Alternate Scenario:*

1. *Information/data filled is invalid.*
2. *Give user a message that a prticular information is invalid.*

***Use Case 3: Login***

*Primary Actor: User*

*Pre Condition: Internet connection available*

*Main Scenario:*

1. *Open the website. User prompted for User\_id and Password.*
2. *User gives User\_id and Password.*
3. *System authenticates data.*
4. *Redirect user to home page.*

*Alternate Scenario:*

1. *Authentication fails.*
2. *Prompt the user that he/she entered wrong ID or Password.*
3. *Allow him/her to re-enter the password. Give 3 chances.*

*Use cases related to Tutor:*

***Use Case 4: Uploading PDF***

*Primary Actor: Tutor*

*Pre-Condition: Tutor Logged in*

*Main Scenario:*

1. *Tutor initiates the uploading PDF command.*
2. *Tutor than browse the file from computer.*
3. *System adds the file to the particular course.*

***Use Case 5: Uploading Video***

*Primary Actor: Tutor*

*Pre-Condition: Tutor Logged In*

*Main Scenario:*

1. *Tutor initiates the uploading video command.*
2. *Tutor than browse the file from computer.*
3. *System adds the file to the particular course.*

*Use cases related to Gallery:*

***Use Case 6: Accessing/Downloading PDF***

*Primary Actor: Students*

*Pre-Condition: Student Logged In*

*Main Scenario:*

1. *Student initiates the downloading PDF command.*
2. *Student than save the PDF in the computer.*

***Use Case 7: Accessing/Downloading Video***

*Primary Actor: Students*

*Pre-Condition: Student Logged In*

*Main Scenario:*

1. *Student initiates the downloading Video command.*
2. *Student than save the Video in the computer.*

*Use cases related to Admin:*

***Use Case 8: Admin Login***

*Primary Actor: Admin*

*Pre-Condition: Internet connection available*

*Main Scenario:*

1. *Open the website. Admin prompted for User\_id and Password.*
2. *Admin gives User\_id and Password.*
3. *System authenticates data.*
4. *Redirect Admin to home page.*

*Alternate Scenario:*

1. *Authentication fails.*
2. *Prompt the user that he/she entered wrong ID or Password.*
3. *Allow him/her to re-enter the password. Give 3 chances.*

***Use Case 9: Make Changes***

*Primary Actor: Admin*

*Pre-Condition: Admin Logged In*

*Main Scenario:*

1. *Admin initiates command to change.*
2. *Admin selects the component he/she wants to change.*
3. *System changes the website according to Admin's command.*

*Use cases related to Updates:*

***Use Case 10: Update Course***

*Primary Actor: Admin*

*Pre-Condition: Admin Logged In*

*Main Scenario:*

1. *Admins post news and info in general.*
2. *Application shows notification to the students/tutors on their recent activities on their profiles.*
3. *Notifications in any change in the application also informed about.*

*Alternate Scenario :*

1. *Network connectivity unavailable.*
2. *Unable to load the content.*
3. *Incorrect Notification*

***Use Case 11: Update Newsfeed***

*Primary Actor: Admin*

*Pre-Condition: Admin Logged In*

*Main Scenario:*

1. *Admin post news and info in general.*
2. *Application shows newsfeed to the students/tutors on new updates of any other course.*

*Alternate Scenario:*

1. *Unable to load the content*
2. *Reload the page.*

*Use cases related to Library:*

***Use Case 12: Accessing Library***

*Primary Actor: Admin/Tutor/Student*

*Pre-Condition: Internet connection available*

*Main Scenario:*

1. *User goes to library if he is a registered library entrant.*
2. *User is allowed to download notes, pdf, books etc.*
3. *Librarian has all the info about which book is downloaded or used.*
4. *A user is allowed to share any material if he/she wishes to.*

*Alternate Scenario:*

1. *Network connectivity unavailable.*
2. *Unable to load the content.*
3. *Reload the page.*
4. *Librarian Feature malfunctions*

***Use case 13: Upload Material***

*Primary actor: Student/Admin/Tutor*

*Pre-Condition: Internet connection available*

*Main Scenario:*

1. *User initiates the uploading book/notes command.*
2. *User than browse the file from computer.*
3. *System adds the file to the Library.*

*Alternate Scenario:*

1. *Network connectivity unavailable.*
2. *Unable to load the content.*
3. *Reload the page.*
4. *Librarian Feature malfunctions*

*Use Cases related to Social Media:*

***Use Case 14: Syncing with Social Media***

*Primary actor: Student/Tutor*

*Pre-condition: User Logged In*

*Main Scenario:*

1. *User initiates the syncing command.*
2. *User prompted to give ID of the particular social media.*
3. *System sync user's account to user's social media account.*

*Alternate Scenario:*

1. *Network connectivity unavailable.*
2. *Unable to load the content.*
3. *Reload the page.*
4. *Librarian Feature malfunctions*
5. *No social media account exists.*

*Use cases related to contact:*

***Use Case 15: Contact Us***

*Primary Actor: Students/tutors*

*Pre-Condition: User Logged In*

*Main Scenario:*

1. *User selects the Contact Us tab, where you can contact the admins.*
2. *Application loads and displays the page with the contact details.*
3. *Contains Details like the link to Website and other social networking sites to get connected.*

*Alternate Scenario:*

1. *Network connectivity unavailable*
2. *Unable to load the content.*
3. *Reload the page.*
4. *Link to Social Networking site is down or unavailable.*
5. *Please visit later message pop-ups.*

***Use Case 16: Contact Tutor***

*Primary Actor: Students*

*Pre-Condition: Student Logged In.*

*Main Scenario:*

1. *Student initiates the view contact command.*
2. *System fetches contact information from database and shows it to student.*

*Alternate Scenario:*

1. *Network connectivity unavailable.*
2. *Unable to load the content.*
3. *Reload the page.*
4. *Librarian Feature malfunctions*

# Other Nonfunctional Requirements

## Performance Requirements

*A proper navigation bar has to be created to pan between the pages, the sharing of resources amongst tutors and students needs to be user friendly.*

## Safety Requirements

1. Fault Tolerance: Data should not become corrupted in case of system crash or power failure.   
2. Regular Update: Data should be regularly update for optimum accuracy.

## Security Requirements

*The only user identity authentication being used is through the email-id**, username and password.*

*Avoiding plagiarism in the resources uploaded is an external security issue to be sought after.*

## Software Quality Attributes

*The quality attributes of this software are: availability, maintainability, flexibility, reusability and the purpose that it serves, of providing a common portal for knowledge sharers and those seeking the same.*

## Business Rules

*It’s a free platform for knowledge sharing where tutors and students share resources amongst themselves and anyone can learn or teach anything they wish to.*

# Other Requirements

*Other requirements consist of maintaining the database and keeping it updated with every new profile, entry, etc., linking it properly with front end and ensuring server reliability and robustness.*

**Appendix A: Glossary**

*HTML: HyperText Markup Language*

*XML: Extensible Markup Language*

*CSS: Cascading Style Sheets*

*PHP: Hypertext Preprocessor (Personal Home Page)*

*MySQL: My Structured Query Language*