Software Requirements Specification

for

INTERNHUB - Internship Portal

Version 1.0 approved

Prepared by

Aprajita Thakur [201680010]

Aditya Ghodgaonkar[201680038]

Reetika Pahuja[201680028]

September 2017

Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The main goal of this web application is to offer a service for Internship seekers and Companies to meet for offering and applying to different positions and Designations. Be it thesis work, summer time, part-time, work from home and full time Internship. The service enables all schools and universities and students from all over the country to meet companies and vice versa.
The purpose of this online web portal is to give a platform for finding the right and satisfactory Internship according to the requirements and qualifications. It also connects the aspiring Interns with the companies.
Internhub keeps it's users from the hassle of Registering and hence they do not specifically need to register/login themselves to use this application. Whereas, Companies have limited options to advertise their Internship advertisement with the capability of editing or deleting the same advertisement.

1.2 Document Conventions

SRS	Software Requirement Specification
HTML	Hypertext Markup language
CSS	Cascading style sheet
PHP	Hypertext preprocessor
SQL	Structured Query language
UI	User Interface
URL	Universal Resource Locator
WAMP	Windows, Apache, MySQL and PHP
MVC	Model-View-Controller
PWA	Progressive Web App

1.3 Intended Audience and Reading Suggestions

The intended readers of this document are the system analyst & designer,project developer, project panel, system owners. In addition to this the document is written with an intent to serve as a reference,for the Capstone Project instructor Mr. Anil

Vashishth, the fifth semester students of MCA, as well as the other students attending Thapar University that will require access to such documentation. The system analyst & designer can use this document for his cross reference to verify his future work. Project developer can use this document for traceability of the functions implemented. Project panel can use this document to verify the quantity and quality of the end product, finally this document can help bridge-up the gaps between the project stakeholders i.e. analysts, designers, developers, system users and the system owners to help them understand what functionalities this Internship Portal will have and what not.

1.4 Project Scope

The scope of this application is to introduce a user-friendly web portal that provides the Internship , Summer Training and other information. The main scope of the application is:

- **Internship Seeker Module**

This module provides functionalities for Internship seekers who are students or any other professional. Registered applicants can post their personal and professional details with resumes. Internship seekers can also apply for any Internship without the need of registration or login to the system to upload their resume and other general information.

- **Employer Module**

The employer module is for companies or public sectors that are interested in hiring Interns. An employer can post a detailed advertisement for a Internship and also update or delete it if required.
The employer can post a Internship vacancy by registering themselves. And further they can get an email notification if someone applies for the specific Internship position.

- **Administrator Module**

This module is for the administrator of the application who has all the control of the system. The Administrator manages the whole application and maintains the profile of employers and applicants. Administration features include:

- Creating multiple Internship categories with subcategories
- Specifying working hours, Internship conditions and experience levels
- Viewing/editing/deleting Internship seekers

- Emailing individual Internship seekers
- Viewing/editing/deleting Employers
- Emailing individual Employers.

The application is easy to use and it provides flexibility to the users to use the service as they want.

1.5 References

[1] Udemy Course on PHP and MySQL Projects : Job Portal Design

[2] Jeffery L. Whitten, Lonnie D. Bentley, Kevin C. Dittman, Purdue University, West Lafayette, IN, Systems Analysis and Design Methods, 6 th edition, New York: McGraw-Hill/Irwin, 2004

[3] Understanding MVC. Available at http://book.cakephp.org/2.0/en/cakephp-overview/understanding-model-view-controller.HTML Accessed 23.08.2016

[4] Internet History and Growth Presentation by William Slater III. Available at http://www.isoc.org/Internet/history/2002_0918_Internet_History_and_Growth.ppt

[5] Designing Web Applications. Available at https://msdn.microsoft.com/en-us/library/ee658099.aspx

[6] Three-Tier Architecture. Available at https://www.techopedia.com/definition/24649/three-tier-architecture

[7] HTML & CSS. Available at https://www.w3.org/standards/webdesign/HTMLcss

[8] CSS How To. Available at http://www.w3schools.com/css/css_howto.asp

[9] Hudson, P. (2006). *PHP in a Nutshell*, Sebastopol: O'Reilly Media. Overall Description

[26] CakePHP folder structure. Available at http://book.cakephp.org/2.0/en/getting-started/cakephp-folder-structure.

[27] CakePHP naming convention. Available at http://www.php-dev-zone.com/

2. Overall Description

2.1 Product Perspective

The software which is to be developed will work independently and is not to be integrated into any other larger system/software. A DBMS will be running behind the Web Server (on which the software that is to be developed will be running as web application) to manage the database of companies and employees, further details are provided later in this document.

2.2 Product Features

The main features of ***InternHub*** are listed below:

1. Internship with details could be stored.
2. C.V of Internship seekers could be stored.
3. Internship search could be performed by Internship seekers.
4. Internship seekers could upload C.V in PDF and doc format.
5. Internship applicant could have a profile (Optional).
6. Internship Filters
7. Automatic Internship Application drafting.
8. The Website will be mobile responsive.

2.3 User Classes and Characteristics

There are four categories of users accessing this system. We will differentiate these users on the basis of their roles and access rights.

Employee:

Employee means Internship seeker who is interested to have a Internship. They must have their login account on this portal.

Employer:

Employer means Internship provider who is interested to find employees. They also must have their login account on this portal.

Internship Portal Administrator:

The person, who is responsible for the management, maintenance and administration of this portal. Visitors: The person who is just visiting this portal. He/She can just only search available Internships. He/She can neither apply for Internships nor post Internships.

2.4 Operating Environment

Interhub is a mobile responsive web application which requires a basic necessity of a working Internet Connection and a Web Browser. User can run it on varied platform including Smartphones , Desktop PC, Tablets and other devices which support a Web Browser.

2.5 Design and Implementation Constraints

The followings constrains are present in this System:

- Any person is allowed to create his/her login account and register himself/herself as an Employee on this portal.
- Any company can’t post their internship on this portal that is not registered to this portal.
- No one have rights to change the information of someone else account on this portal.
- No file except PDF and doc format can be uploaded on this portal.
- No one can maintain and manage this portal except the administrator of this portal.
- Any user who likes to register him/her on this portal must have an email address (like yahoo, hotmail, gmail or etc.). Because alert messages will be sent to that mail box.
- Internship Tracker isn't available right now.
- The Application though mobile responsive but fails to be a PWA.

2.6 Assumptions and Dependencies

The assumptions and dependencies for this system are:

- ***Website Administrator:***

  There should be at least one website administrator who can manage and maintain this website.

- ***Server based software:***

  The software will be installed on server. So it will be client independent i.e. software needs not to be installed on each client machine.

- ***Software on client end:***

  The only software needed on the client end is the web browser. If a client doesn't have a web browser he can't get benefit from this Internship portal.

- ***Internet based:***

  As this software is an internet based i.e. the organization or any employee that is going to use this Internship portal, must have an internet connection.

3. System Features

<This template illustrates organizing the functional requirements for the product by system features, the major services provided by the product. You may prefer to organize this section by use case, mode of operation, user class, object class, functional hierarchy, or combinations of these, whatever makes the most logical sense for your product.>

3.1 System Feature 1

<Don't really say "System Feature 1." State the feature name in just a few words.>

3.1.1 Description and Priority

<Provide a short description of the feature and indicate whether it is of High, Medium, or Low priority. You could also include specific priority component ratings, such as benefit, penalty, cost, and risk (each rated on a relative scale from a low of 1 to a high of 9).>

3.1.2 Stimulus/Response Sequences

<List the sequences of user actions and system responses that stimulate the behavior defined for this feature. These will correspond to the dialog elements associated with use cases.>

2.1.3 Functional Requirements

<Itemize the detailed functional requirements associated with this feature. These are the software capabilities that must be present in order for the user to carry out the services provided by the feature, or to execute the use case. Include how the product should respond to anticipated error conditions or invalid inputs. Requirements should be concise, complete, unambiguous, verifiable, and necessary. Use "TBD" as a placeholder to indicate when necessary information is not yet available.>

<Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.>

REQ-1:
REQ-2:

3.2 System Feature 2 (and so on)

4. External Interface Requirements

4.1 User Interfaces

Internhub is a web based application hence as per the User Interface Requirement , a user shall have a browser like Google Chrome (recommended) , Mozilla Firefox, Mobile Browser or any other browser by which user can access to the system.

4.2 Hardware Interfaces

Internhub is an application that must run over the internet, hence, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable. Apart from this , emphasizing on Memory Requirement :

Primary Memory:
The minimum proposed RAM for running the Web Server is 128MB and recommended is 256MB but if there is a higher load of users accessing the web application it should be more than 512MB. The minimum proposed RAM for the DBMS is 64MB and recommended is 128MB or more.

Secondary Memory:
Proposed hard disk required for Web Server installation is 100MB to 120MB and for DBMS installation 95MB to 270MB. Additional data storage will be required for Databases, also the size the Databases may increase after each year according to the requirements, maintaining the backup will also take space.

4.3 Software Interfaces

A Web Server and DBMS will be required for this software to run. MySQL will be used as a DBMS. Apache will be used as Web Server. Operating system running on server side will be Windows 2000 Server/Windows XP Server or Linux Server. WAMP will be used, it is an Apache distribution containing MySQL, PHP and any Mail Transport System (preferred Mercury Mail Transport System).

On the Client Side any browsers like Internet Explorer v6/7 or Firefox v2.0/v3.0 would be fine to access the web application. The basic purpose of the browser would be to request a web page from Web Server. On client side operating system should be Windows 2000, Windows XP, Windows Vista or Linux.

4.4 Communications Interfaces

As Internship Portal is an Internet based system, therefore it will require some standard networking protocols for communication. These protocols are usually installed automatically by the operating system running on the server or the client.

Few of these protocols are:

TCP/IP:

It is a protocol used to communicate data all around the Internet/Intranet. HTTP (Hyper Text Transfer Protocol): It is a protocol used by the WWW (World Wide Web) service to make communication possible between a web server and a Web browser.

SMTP (Simple Mail Transfer Protocol):

It is a de facto standard for e-mail transmissions across the Internet.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

<If there are performance requirements for the product under various circumstances, state them here and explain their rationale, to help the developers understand the intent and make suitable design choices. Specify the timing relationships for real time systems. Make such requirements as specific as possible. You may need to state performance requirements for individual functional requirements or features.>

5.2 Safety Requirements

<Specify those requirements that are concerned with possible loss, damage, or harm that could result from the use of the product. Define any safeguards or actions that must be taken, as well as actions that must be prevented. Refer to any external policies or regulations that state safety issues that affect the product's design or use. Define any safety certifications that must be satisfied.>

5.3 Security Requirements

<Specify any requirements regarding security or privacy issues surrounding use of the product or protection of the data used or created by the product. Define any user identity authentication requirements. Refer to any external policies or regulations containing security issues that affect the product. Define any security or privacy certifications that must be satisfied.>

5.4 Software Quality Attributes

<Specify any additional quality characteristics for the product that will be important to either the customers or the developers. Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability. Write these to be specific, quantitative, and verifiable when possible. At the least, clarify the relative preferences for various attributes, such as ease of use over ease of learning.>

6. Other Requirements

<Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.>

Appendix A: Glossary

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

Appendix B: Analysis Models

<Optionally, include any pertinent analysis models, such as data flow diagrams, class diagrams, state-transition diagrams, or entity-relationship diagrams.>

Appendix C: Issues List

< This is a dynamic list of the open requirements issues that remain to be resolved, including TBDs, pending decisions, information that is needed, conflicts awaiting resolution, and the like.>