
Software Requirements Specification

For

TedxNIITUniversity

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version
Chinmaya Bansal	29/08/17	Created/Modified	V – 0.1
Ankit Pahuja	12/09/17	Modified/Enhanced	V – 0.2
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Ankit Pahuja	24/09/17	Modified/Enhanced	V – 1.0

1. Introduction

1.1 Purpose

The introduction of the SRS provides complete overview of the entire SRS with everything i.e. scope, purpose, definitions, abbreviations, acronyms, references and overview of SRS. The product whose software requirements are specified in this document is a website. It also concentrates on the capabilities required by stakeholders and their needs while defining high-level product features.

The aim of this project to give the client a website that is required by them for the Tedx event that is being hosted in NIIT University named TedxNIITUNIVERSITY. The theme for this project will be custom-ed and be made on WordPress for non-developers to make changes to and be user-friendly.

1.2 Document Conventions

Main Section Titles

Font: Times New Roman Face: Bold Size: 18

Sub Section Titles

Font: Times New Roman Face: Bold Size: 14

Standard Text

Font: Arial Face: None Size: 11

1.3 Intended Audience and Reading Suggestions

Clients: The users of the system will get an idea of the Website and how it should be used to maximize its performance. Moreover, client will be benefited since they will know beforehand about the features the site has and could give feedback during the development phase and it will also provide easy maintainability once it's live. The idea is to keep the client in the loop in-order to produce a user friendly product.

Developers: Project developers have a framework to base their projects on and will get to know the requirements and other such things for building a similar project.

Clients should first go through user interface and after that this document can be read in any order.

Developers can go through any order depending on their requirements.

1.4 Product Scope

The website will help the users in obtaining information about the event that is going to be held in the university premises. The users will vary from students, teachers to business professionals. Live web-cast will be available to the users. The users can also register and buy the tickets for the event on the website linked through a payment gateway. The helpline number as well as a feedback form would be available to the users.

The organizers require the website to publicize the event as well as to provide details. The theme for this project will be **custom-ed** and be made on WordPress for non-developers to make changes to. The main objective of the product is its maintainability and easy to understand functionalities which make the product user-friendly.

We aim to make use (a blend) of Waterfall model & Iterative model - i.e. we jot down everything that is required in advance and as per our estimation we will somehow have to iterate different jobs in terms of Analysis, Design, Coding, Testing in a loop.

1.5 References

- IEEE Software Engineering Standards Committee, "IEEE Std. 830-1998, IEEE Recommended Practice for Software Requirements Specifications, October 20, 1998.
- Official Guidelines:
<https://www.ted.com/participate/organize-a-local-tedx-event/tedx-organizer-guide/branding-promotions/your-event-website>

We have tried to make use of the above site to make a benchmark and to build our product better. Please note that no content has been copied from their product either in the form of code or whatever content is there on their website.

2. Overall Description

2.1 Product Perspective

This product is not a member of the collection of Tedx websites. This product will help the client in distributing information regarding the mentioned event and we basically aim to spread awareness about the event and generate sales of 2.0 Lakh INR from this project through ticket sales.

The product will be an open source, under the GNU general Public License.

2.2 Product Functions

- > Site Administrator Login / CMS: WordPress
- > Complete team list & Portrayal.
- > Portal to buy tickets / Payment Gateway
- > Previous Tedx talks
- > Sponsors list/infographic
- > Newsletter Subscription
- > Contact Information

- > Directions to reach the venue – Virtual Tour
- > Social Handles
- > About the theme and the event
- > List of Speakers and their BIO
- > To show the details of current and upcoming events
- > 24*7 Chat Option | Reply within 24 hours
- > Blog build and Maintenance (blog.tedxniituniversity.com)
- > Search Option on the webpage

2.3 User Classes and Characteristics

This product aims to showcase relevant information regarding the event and all the people are potential users who are in a way willing to attend this Tedx event.

The users (who wishes to attend the event) of the TedxNIITUniversity website, based on their roles, are customers (users) and the admin (owner). These users are identified based on their experience and technical expertise.

1. Admin: The administrator is the owner of this website. One must have a basic understanding of computers and the internet as well as prior knowledge for operating the internet, HTML, CSS, JavaScript, PHP programming language and SQL. The admin is responsible for maintaining all the documents required for the system. But since, the product is being built on WordPress, thence, an admin can lack the skills and can still build and run the product well.
2. Users: The users of this product are all customers who seek to attend this event. These users are anyone who wishes to attend the event or seek for event information in detail. They must have basic understandings about computers and the internet. The users should be able to perform the following functions using this system:
 - View, browse, and select a category on the home page.
 - Check out the items from the application.
 - Search on a website.
 - Well versed with payment gateways.

2.4 Operating Environment

A user does not require an extra-ordinary machine to access this product. Since, this a web-based product, you simply need to have a browser (any would work – latest version). To have better experience – suggested hardware requirements would be:

- Screen size: 15 inches.
- Flash is to be turned on to let either flash applications to run.
- Running internet connection is mandatory.

However, this is a web based system and hence will require the operating environment for a client and server GUI. Linux servers are provided by the hosting service.

2.5 Design and Implementation Constraints

The main constraints are:

- Hardware Limitations: The minimum hardware requirement for the system is 128MB of RAM and a 32-MB hard-disc drive.
- Accessibility: Initially, the software should be available as a desktop as a desktop application for a small set of users to test.
- Others: The application should be built using Java and JavaScript inscribed in HTML.
- Speed of the site.
- Security – protecting ourselves from DOS & DDOS attacks.
- Server security.

Design Constraint:

This section lists the design requirements for the online free advertisement system.

- DC01: The user interface (UI) must have specific fonts and font size. The system shall matches the font sizes used for all the pages of the application.
- Software System Quality Attribute
- Integrity
- QA01: The authorized user shall be allowed to access the online free advertisement application.
- QA02: Based on the user type, the online free advertisement system shall provide a user specific interface.
- QA03: The system shall be made available to the user/ administrator year round.
- Robustness
- QA04: The system shall be able to save items to saved items.

2.6 User Documentation

The client can go through the referenced websites to obtain an understanding of the product before the delivery of the product. A demonstration will be provided by us while delivering the product to the client for full understanding. Also, a PSD file will be supplied before an actual/live website.

2.7 Assumptions and Dependencies

The assumptions and dependencies are as follows:

- It is assumed that the hardware designed will work correctly with the third-party operating system and the developed software.
- We assume that system user adhere to the system's minimum software and hardware requirements.
- Full working and information retrieval is dependent on the availability of internet connection.
- Further information and communication can only be done via tedxniituniversity.com

3. External Interface Requirements

3.1 User Interfaces

The two interface types found in the website are as follows:

1. UI of the homepage
2. UI of team selections Page and some more to add.

After the development of the product, the screen shots will be pasted here.

3.2 Hardware Interfaces

All the hardware's on which a Web Browser can be installed can act as an interface for the product and the user. The Hardware can be mobile, laptop, pc and tablet.

Few to mention;

The following hardware configurations are required for a PC using the online free advertisement application:

- Pentium processor, i3, i5, i7.
- 32 MB of free hard-drive space.
- 128 MB of RAM.

3.3 Software Interfaces

This section lists the requirements that are needed to run the system efficiently. The operating system needed for the system to run effectively, the interface to run the application, flash to run in the web browsers, the integrated development environment to develop the application, and the third-party tool used for editing purposes are as follows:

- Operating System: Windows (Vista/Windows 7, 8, 10) or MAC OS.
- Web Brower: Internet Explorer (8.0 and above), Mozilla Firefox (3.0 and above), or Google Chrome.

3.4 Communications Interfaces

The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is not important for the system and is therefore handled by the underlying operating systems for web application. But, any transaction on web deals with the following protocols.

- TCP/IP
- HTTP

4. System Features

We describe the functional requirements by giving various use cases.

Use case related to maintenance:

Use Case 1: Admin login

Primary Actor: Administrator

Pre Condition: Internet connection available.

Main Scenario:

1. Admin initiates CMS / WordPress maintenance template provided and admin login is required.
2. The changes could be easily implemented using easy to use user friendly features and with interactive WordPress tools
3. Changes can made live ASAP if needed.

Alternate Scenario:

4. Authorization fails
 - > Prompt the Admin that he typed the wrong password.
 - > Allow him to re-enter the password. Give him 3 chances.

Use cases related to Site Navigation and Product Usage:

Use Case 2: Complete team list & Portrayal.

Primary Actor: User

Pre Condition: Nil

Main Scenario:

1. Start the website, navigate the menu bar to reach "Teams".

Alternate Scenario:

2. User is unable to navigate inside the menu bar or the site speed is too slow that user exits.

Use Case 3: Buy tickets

Primary Actor: User

Pre Condition: Login Not required / redirect to payment gateway!

Main Scenario:

1. User initiates buy ticket action.
2. User is given the details about the event and amount to be paid. User is then asked for confirmation to pay.
3. User is the redirected to the dedicated gateway, to select payment action and provide further details.
4. System does payment verification.
5. A receipt/ Ticket is generated.

Alternate Scenario:

- 6.1 Payment not confirmed the redirect to main page.
- 6.2 Payment failed

>Refund for the payment should be initiated.

Use cases related to Information/ Event promotion:

Use Case 4: Previous Tedx talks

Primary Actor: User

Pre Condition: Nil

Main Scenario:

1. User could watch the previous ted talks for reference.
2. User clicks on the video, video player is used to play the video

Alternate Scenario:

3. Video doesn't work due to connection or broken link.
>Page reload or if broken link the link updated.

Use Case 5: Sponsor list.

Primary Actor: User

Pre-Condition: Nil.

Main Scenario:

1. Sponsor list is featured on the website.
2. Main motive is to generate revenue for the via sponsor adverts of kind.
3. Redirect to the sponsor site if clicked.

Use Case 6: Newsletter Subscription.

Primary Actor: User

Pre-Condition: Nil.

Main Scenario:

1. User enters details and clicks on subscribe in the subscription column.
2. Updates about the event are send to the user's inbox.
3. The portfolio is deleted.

Alternate Scenario:

4. User opts out for subs
>User is unsubscribed.

Use Case 7: Contact information.

Primary Actor: User

Pre-Condition: Nil.

Main Scenario:

1. Contact info is listed in the contact section of the website.
2. User could contact using the details provided.

Use Case 8: Directions to reach the venue.

Primary Actor: User

Pre-Condition: Not required

Main Scenario:

1. User is give a visual tour on how to reach the university.
2. Separate details are also provided.

Alternate Scenario:

3. Video doesn't work due to connection or broken link.
>Page reload or if broken link the link updated.

Use Case 9: Social media links/ Social handles

Primary Actor: User

Pre Condition: Nil

Main Scenario:

1. User clicks on the link.
2. User is redirected to social media pages.

Alternate Scenario

3. Redirection to social media pages failed.
 >Wait for them to load.

Use Case 10: Blog build and Maintenance.

Primary Actor: Admin.

Pre-Condition: Admin logged in.

Main Scenario:

1. Admin updated / maintains the blog.
2. Blog is used as the information hub for the event.

Alternate Scenario:

3. Authorization fails
 >Prompt the Admin that he typed the wrong password
 >Allow him to re-enter the password. Give him 3 chances.

Use Case 11: About.

Primary Actor: User.

Pre-Condition: Nil.

Main Scenario:

1. Information about event and site are displayed.
2. Copyrights licenses etc. are mentioned
3. Ownerships etc. are declared.

Use Case 12: List of speakers and their bio.

Primary Actor: User.

Pre-Condition: Nil.

Main Scenario:

1. List of speakers is provided on the website.
2. User clicks on the speaker to display the speaker's biography.

Use Case 13: Show current and upcoming events.

Primary Actor: User.

Pre-Condition: Nil.

Main Scenario:

1. A notification is issued on the website with the details of the event.
2. Subs, Registered users are informed of the event.

Use Case 14: 24*7 Chat

Primary Actor: User

Pre-Condition: Any guest user

Main Scenario:

1. User selects the Chat option.
2. User submits a query.
3. Proper answer is issued in response to the query within 24 hrs.

Use Case 15: Search on the webpage

Primary Actor: User

Pre-Condition: Nil

Main Scenario:

1. The user, if in case, doesn't find what he's looking for doesn't find – can search using this use case. There is no alternate scenario unless there is a code break.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- Should run on 500 MHz, 64 MB machine which is minimum required to run a web browser.
- Loading speed should be less than 3 seconds.

This section lists the performance requirements expected from the OLA application.

- PR01: The users shall be able to reach the website within 3 sec.
- PR02: The navigation between pages shall take fewer than 5sec.
- PR03: The application shall be able to do a validation check on the information provided in the user-authentication form and the place-advertisement form to avoid false or incomplete information.

5.2 Safety Requirements

Web safety models to be followed.

5.3 Security Requirements

- The system use SSL in all transactions that include any confidential customer information.
- The system must automatically log out all customers after a period of inactivity.
- The system should not leave any cookies on the customer's computer containing the user's password.
- The system's back-end servers shall only be accessible to authenticated admin.
- Sensitive data will be encrypted before being sent over insecure connections like the internet.

5.4 Software Quality Attributes

- The system provides storage of all database on redundant computers with automatic switchover.
- The backup of the database is continuously maintained and updated to reflect the most recent changes.
- The system should be available at all times, meaning the user can access it using a web browser.
- The application is HTML and scripting language based. So the end-user part is fully portable and any system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future.
- An end-user can use this system on any operating systems, either it is Windows or Linux.

5.5 Business Rules

We cannot make use of AdSense so as to generate profit from people visiting the website since is a non-profit initiative but we surely aim to get 2 Lakh INR generated from ticket sale. And, our website product will also help our community to get meaningful sponsorships!

Appendix A: Glossary

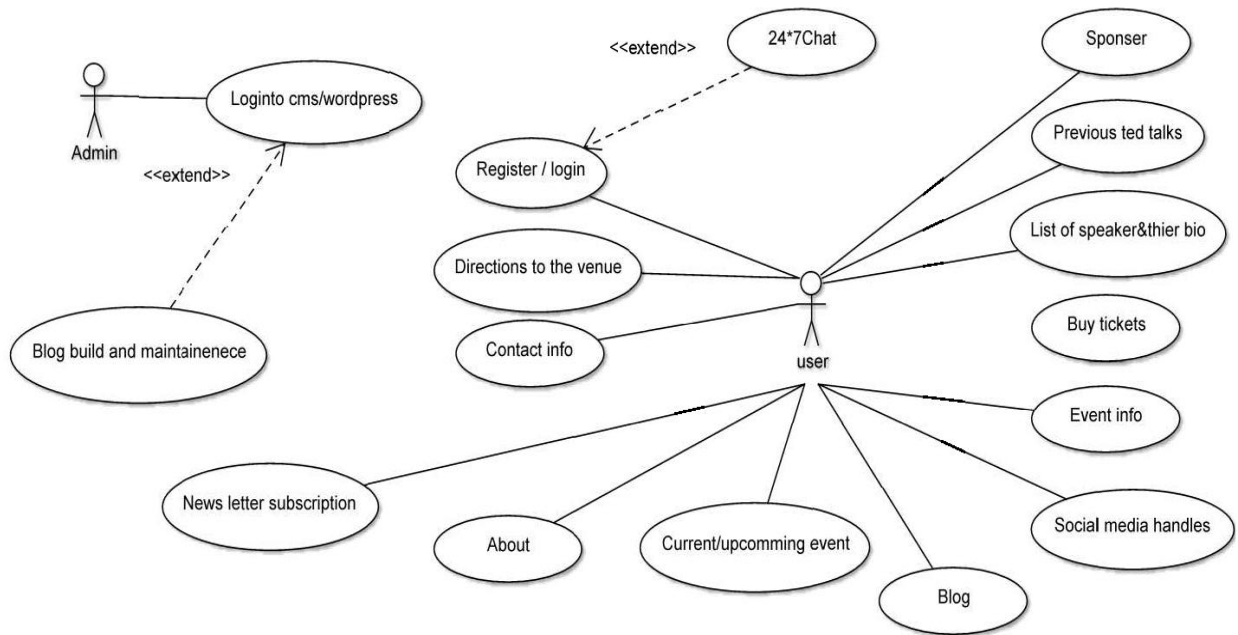
Admin: Administrator, he has the authority to add/remove posts and the content that is being displayed onto the site.

HTTP: Hypertext Transfer Protocol.

HTML: Hyper-text markup language

CSS: Cascading style sheets

PHP: Hypertext Preprocessor.

Appendix : USE – CASE DIAGRAM

Letter from the Client

TO WHOM IT MAY CONCERN

This is to certify that Mr. Ankit Pahuja along with his team members has successfully laid out the plan on what is desired and how it is supposed to be done. I really liked this document and since everything was in detail, I would like to thank and motivate the team to continue to work hard and deliver the project on time (by 30 Nov)!

Keep it up!

Thank You,

@kshaye

Akshaye Khanna

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