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Times of india - TOI SRS

Software Engineering (Lovely Professional University)

Software Requirements Specification

For

Times of India (Online News Portal)

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Revision History

Name	Date	Reason For Changes	Version
Shubham Garad	24/09/17	Creation	1

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1. Introduction

1.1 Purpose

This document describes the software requirements and specification for **Times Of India** (TOI) Online web portal.

1.2 Document Conventions

In this section contains the most important document conventions. Abbreviations used in this document can be found from section appendix A: Glossary. Bold-style highlighting is used in the text when important concept is mentioned first time.

1.2.1 Requirement priorization

Each requirement in section 3 has priorization number from 1-5 (displayed as **P5**, **P4**, **P3**, **P2** or **P1**), in which the number 5 is the most important feature and number 1 is the least important feature. Guideline to use the priorization is following:

- Each feature priorized with number 5 shall be implemented to the system before any other feature.

- Features priorized with number 4 are sub features of the features with priorization of 5. These features shall be implemented to the system after all higher priorization features are implemented. However, in some cases when given sub feature is considered to be essential for the given parent feature, this sub feature can be implemented right after the parent feature is implemented.

- Each feature priorized with number 3 would be beneficial to implement to the system. These features are implemented only when all higher level of priorized features are implemented.

- Features priorized with number 2 are sub features of the features with priorization of 3. These features shall be implemented to the system after all higher priorization features are implemented. However, in some cases when given sub feature is considered to be essential for the given parent feature, this sub feature can be implemented right after the parent feature is implemented.

- Each feature priorized with number 1 are optimational features and should be implemented to the system only after all the other higher priorization features are implemented.

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1.3 Intended Audience and Reading Suggestions

The document is intended for all the Reporters and customers and the developer (designers, testers, maintainers).The reader is assumed to have basic knowledge of English and Browser and Internet. Knowledge and understanding of UML diagrams is also required. Project engineers can use this document for clarifying case-specific requirements for similar projects.

1.4 Project Scope

The scope of the project is to produce requirements and features that deals with online news portals like Times of India and technology associated with user-group of senior-class citizens. This document can be used as a base for defining case-specific requirement specifications regarding news portal and interface newspaper applications. Requirements and features listed in this specification document are not meant to be final, instead they are meant to be guidelines taken from the existing "Time of India "online news portal.

1.5 References

1. Fundamentals of Software Engineering, Rajiv Mall, New Delhi: PHI Learning limited, 2003

2. http://en.wikipedia.org/wiki/Software_engineering

3. http://timesofindia.indiatimes.com

2. Overall Description

2.1 Product Perspective

The product is eventually intended for newspaper printing organizations which want to launch online news portal like Times of India and this documents are also intended for the study of online news portal Times of India, which is very famous in India.

Communication interface
The TOI communicates with the servers systems of TOI via a Communication network.

Software interface
The news fetched from the server are displayed to user by Internet Browser or Specific Software.

Hardware interface
The software and website will run on any of the PCs and also android devices.

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User interfaces:
Customer
The customer user interface should display news and advertisements categorized into different fields. The interface should be designed in such a manner that user can read news easily and comfortably, like TOI.

Reporters
The interface for the user in TOI is designed such a way that anyone who register to write a news will be able to do so with maximum possible ease and comfort.

Publishers
The publishers get the news written by various users and professional reporters on his interface and from hat e has to choose which news to be published.

Maintainers
The site maintainer have interface on which the site's current status with number of visitors is shown and also the anomalies coming from the readers as feedback.

2.2 Product Features

The product has some functionality or features that are listed as below.

1) This system make easy for those user who like to read news paper anywhere and save the paper.
2) It can have backup for the user data and database.
3) If portal has an error that it can't recover from by itself, such as the lack of internet connection than it will notify any current user and give contact information from where technical help can be achieved.
4) It is applied to all the mode of users.
5) The system uses browser built-in multimedia player that can play following multimedia: video, sound and picture files and video file formats: mp4, avi and swf.
6) It is designed in such a way that it won't take too much time and can be loaded on any device connected to internet.
7) The system shall be passive.

2.3 User Classes and Characteristics

Characteristics
There are several users of the Times of India news portal:

Customers are simply members subscribed to their site from the general public with no special training.

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Reporter need to have knowledge about writing the news articles or experience.

Publishers have the authority to select the articles from various reporters and publish them on the website.

Maintainers must be experienced in network administrators, to be able to handle the traffic on the site.

2.4 Operating Environment

The hardware, software and technology used should have following specifications:
• Ability to read the Basic English for customer
• Ability to handle and monitor the site traffic for maintainers
• Active Net connection
• Web browser with flash player to play videos
• Ability to take input from user
• Ability to validate user

2.5 Design and Implementation Constraints

The constraints at the designing time are that the needs of the end users may keep on changing so the designers must keep this in view and design the product in the way that it is easily updatable. The os may not support older hardware like keyboard and mouse's so the designers must keep update with the entire hardware requirement so that it can work on the update of software. The hardware requirement may be like the capacity to store the data in hard drive and with timing the limitation of time to display the data and to open the display within the short period when the user touch the screen and some parallel operation like downloading the data as well as the user can read the data also. When the product is delivered to the customer than it should be designed in the easiest way so that they feel easy with using the system like keeping the bottoms and screen sixe big enough to enlarge the data with good screen resolution provided and the tools used like display board and format used to present the data The system should be secure in the case when the news are being read by user and user profile are to be kept safe.

2.6 Assumptions and Dependencies

• Hardware never fails
• Customer net connection is working
• Server should have a power backup as well as a database backup.
• Website should work on windows, Linux as well as on Apple's Os

3. System Features

The purpose of SRS (Software Requirement Specification) document is to describe the external behavior of the web based newspaper. It defines the operations, performance and interfaces and quality assurance requirement of the web based newspaper. The complete software requirements for the system are captured by the SRS (Software Requirement Specification).

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3.1 Functional Requirements

For documenting the functional requirements, the set of functionalities supported by the system are to be specified. A function can be specified by identifying the state at which the data is to be input to the system, its input data domain, the output data domain, and the type of processing to be carried on the input data to obtain the output data.

Basically the management parts are the functional requirements which are uploading details, search topic, edit option and user registration

3.1.1 Requirements of the Times of India

Functional requirement 1: Subscribe

Description: The system shall provide a registration page

Input: Email id of the customer.

Output: "Thanks for subscribing" message.

Functional requirement 2: Uploading Item

Description: Uploading function can be done by the user who has registered on the website. When the user uploads an item and if it is a news item or forum is determined and edited by the administrators or editors and then it is displayed on the home page. A registered user can also add comment on other news as well.

R2.1: Select upload option.

Input: Select upload item option.

Output: User will be prompted to enter the upload type.

R2.2: Select the type of item.

Input: Users opt from one of the following

        R1.2.1 News item

        R1.2.2 Forum item

        R1.2.3 Comment item

Output: User will be prompted to enter item details according to the above item.

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R2.3: Check to display

Input: Check whether the item is visible for the masses.

Output: We will be prompted to display item.

R2.4: Display the item

Input: Edit the news item.

Output: The item is displayed on the screen.

Processing: It is controlled by the editor and which checks whether the uploaded item is fit for the mass or not if it is then it display on screen if not then it is edited to make it visible for the mass then display on the screen of the website.

Functional requirement 3: Search topic

Description: Search function does not require any authentication from its user so any user can perform this function. If a user searches for a news item then the news will be displayed on the screen if it related to the search topic.

R3.1: Select search option

Input: Search option.

Output: User will be prompted to enter the search topic.

R3.2: Check for the search topic

Input: Checks for the search topic related item.

Output: We will be prompted to display the items.

R3.3 Display the item

Input: Enter topic related to item.

Output: Display the item.

Processing: It checks for any item related to the search topic and displays it on the screen and if there is no item related to the topic is present then it will pop as no related item.

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Functional requirement 4: Edit topic

Description: Edit function can be done by only administrator or editor. Any uploaded item is examined and edited by administrator so it can be allowed to display to mass.

Input: Edit option.

Output: User will prompted to edit the uploaded item.

Functional requirement 5: User registration

Description: Registration is allowed to the users who are not registered yet (unregistered users) and completion of this function they can also upload items.

R5.1: Select register option

Input: Register option.

Output: User will prompted to write a user name, email id, and password.

R5.2: Check for validity

Input: Checks whether any other registered users have same information.

Output: We will be prompted to register successfully if it has different information or else its rejected.

Processing: It checks if the information submitted about the new user is similar to any other registered user if yes it rejects the user information if no then new user will be registered successfully.

Functional requirement 6: Verification

Description: The content uploaded by registered user is verified by publisher.

R6.1: Content is OK

Input: Cross checks the news or article uploaded by any other registered users.

Output: If the information through content is ok then publish it.

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R6.2: Content is not OK

Input: Cross checks the news or article uploaded by any other registered users.

Output: If the information through content is not ok then reject it and apologize to user.

Functional requirement 7: Login

Description: Login to user account.

R7.1: Login Successful

Input: username and password created while signup.

Output: Enter into the user account.

Process: Cross check the login credentials with the database.

R7.2: Login Unsuccessful

Input: invalid username or password.

Output: Display error massage and suggest to try again.

Process: Cross check the login credentials with the database.

Functional requirement 8:

Input: Select the news categories.

Output: Display the news from the selected category.

Process: Show loading message.

Functional requirement 9: Follow us

Input: Request the user to follow on various social networking sites or ignore.

Output: If accepted then display thank you message.

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Functional requirement 10: Feedback

Input: Collect feedback from user about their user experience.

Output: Display the "Thanks for your message".

Process: Load the feedback and send it to developer team.

4. External Interface Requirements

4.1 User Interfaces

The customer user interface should be intuitive, such that 99.9% of all new visitors to web portal shall be able to read the news without any assistance from third person.

4.2 Hardware Interfaces

The hardware should have following specifications:

• Internet connection
• Web browser with flash player
• Touch screen for convenience
• Keypad (in case touchpad fails)
• Continuous power supply
• Ability to take input from user
• Ability to validate user

4.3 Software Interfaces

Web browser with flash player**.**

5. Other Nonfunctional Requirements

These are the requirements that are not functional in nature. Especially these are the constraints the system must work within.

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- **Performance Requirements:** The system response time must be less than 30 seconds for the user interface. Or else the system will show TIMED OUT.

- **Reliability Requirements:** The system shall have a minimum uptime of 99 % excluding time pre-scheduled for maintenance and/or upgrades.

- **Safety Requirements:** All the system data must be backed up every day and the backup copies stored in another server at different location for disaster recovery.

Quality Attributes: The source code for the system is well documented for ease of maintenance and upgrading the system in future.

5.1 Availability
The Site should be available 24 hours a day with latest news.

5.2 Security
The portal should provide the security of customer login details.

5.3 Maintainability
Only maintainers are allowed to make changes in the site design and update it.

6. Other Requirements

Data Base
The Times of India news portal must be able to use several data formats for displaying news according to the data formats provided and required by various users. Any editing in the articles by user should make changes in database also but after publisher accepts it and the site should contain the database of users' username and password along with other details created while registration and used to cross check while login process.

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