

# SRS DOCUMENT

**Title: Times of India**

As a Field work for Course

Software Engineering(CSE 320)

By

Sr. No.	Registration No.	Name of Students	Roll No	Total Marks	Marks Obtained	Signature
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# 1. Introduction

TOI is an Indian English-language Daily newspaper owned by the Times of Group. Times of India is a system which is provide daily latest news through Online to readers. It provides the proper and systematically news to the readers.

## 1.1 Purpose:

The Times of India software requirement specification (SRS) main objective is to provide a base for the foundation of the project. It gives comprehensive view of how the system is supposed to work and what is to be expected by the end user. Client's expectation and requirement are analyzed to produce specific unambiguous functional and non-functional requirements, so they can be used by development team with the clear understanding to build a system as per end user needs.

This SRS for TOI can also be used for future as basic for detailed understanding on how project was started.



## 1.2 Document Conventions:-

This section contains the most important document conventions. Abbreviations used in this document can be found from section appendix. 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 prioritization number from 1-5 (displayed as P<sub>5</sub>, P<sub>4</sub>, P<sub>3</sub>, P<sub>2</sub> & P<sub>1</sub>) in which the number 5 is the most important feature and number 1 is the least important feature.

- Each feature prioritized with number 5 shall be implemented to the system before any other feature.
- Each feature prioritized with number 3 would be beneficial to implement to the system. These features are implemented only when all higher level of prioritized features are implemented.
- Each feature prioritized with number 1 are optional features and should be implemented to the system only after all the other higher prioritization features are implemented.



1.3

### Intended Audience to SRS:-

The document is intended for all the customers, Reporters and the developers (designers, testers, maintainers). The reader is assumed to have basic knowledge of English and Browser and Internet. Knowledge and understanding of UML, diagrams are required.

1.4

### SRS Scope:-

The scope of the project is to produce requirement and features that deals with online news portal like Times of India and the technology associated with user - group of senior-class citizens. This document can be used as a base for defining case-specific requirements regarding news portal and interface with news paper application.

1.5

### References:-

- (a) <https://timesofindia.indiatimes.com>
- (b) Fundamentals of Engineering, Rajib Mall.
- (c) <http://en.wikipedia.org/wiki/Software>



## 2. Overall Description

### 2.1 Product Perspective:-

The product is eventually for newspaper printing organizations which want to launch online news portal like Times of India and this document is intended to study.

#### (a) Communication interface

The TOI communicated with the server system of TOI via a communication Network.

#### (b) Software Interface

The news fetched from the server are displayed to user by Internet Browser or specific Domain.

#### (c) Hardware Interface:-

The software and website will run on any of the PCs and also android device.

#### ⇒ User Interface:-

##### • customer

The user interface of TOI will display news and advertisements categorized into different fields.



The interface is designed in such a manner that user can reuse easily and comfortably.

- Reporters

The interface for the reporter of TOI is designed in such a way that anyone who registers to write an article will be able to do with possible effort.

- Publishers

The publishers get the news written by various users and professional reporters on his interface and from that 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 onsite.

## 2.2 SDS Features:-

The SDS has some functionality or features that are listed below-

(a) This system make easy for those user who like to lead newspaper and save the paper.

(b) It can have backup for the user data and database.



- (c) If portal has an error that it can't recover by itself such as the lack of internet connection then it will notify any current user and give contact information from the technical team.
- (d) It is applied to all mode of users.
- (e) The system shall be passive

### 2.3 Operating Environment

The hardware, software and technology used should have following specifications:-

- Ability to read the basic English for the customer.
- Ability to handle and monitor the side traffic for maintenance.
- Active net connection.
- Ability to validate user.
- Ability to take input from user.

### 2.4 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 on OS.



### 3. Software features (SRS)

The purpose of SRS document is to describe the functional and non-functional requirements. It defines the operations, performance and interface and quality assurance requirement of the web based news paper. The requirements should be specified in a detailed and complete form as possible.

#### 3.1 Functional Requirements:

For documenting the functional requirements, the set of functionalities supported by the system need 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.

##### 3.1.1 Requirements of Times Of India

###### 0 Functional Requirements 1: Register

Description: The system shall provide a registration page.



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Input: Email id of User

Output: "Thanks for register" message

### O Functional requirement 2: login

Description:- login to User Account

R2.1: login Successful

Input: Username and password  
created while sign up

Output: Enter into user account

Process:- Cross check the login  
credentials with the database.

R2.2: login Unsuccessful

Input: Invalid username or password

Output: Cross | Display error message  
and suggest to try again.

Process:- Cross check the login  
credentials with the database.

### O Functional Requirement 3: Search

Description: Search function does  
not require any authentication  
from user so any user can  
perform this function. If a user  
searches for a new item then  
news will be displayed on the  
screen.

R3.1: Select Search option



Input:- Search Option

Output:- User will be prompted

Rq 3.2: Check for the search topic

Input: Checks for the search topic related item.

Output:- We will be prompted to display the items.

Rq 3.2: Display the item

Input: Enter topic related 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 show no related item.

#### O 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.

#### O Functional Requirement 5:-



Input:- Select the news categories

Output:- Display the news from the selected category.

Process:- Show loading message

### 0 Functional Requirements:- Uploading items

Description:- Uploading function can be done by the user who has registered on the website. When the user uploads an item if it is a news item or forum item is determined and edited by administrator or editor.

#### R.O. 1:- Select Upload item

Input:- Select upload item option

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

#### R.O. 2:- Select the type of item.

Input:- User opt from one of the following

R.O. 2.1:- News item

R.O. 2.2:- Forum item

R.O. 2.3:- Comment item

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

#### R.O. 3:- Check to display



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

Output: We will be prompted to display item.

#### R.6.4:- Display the item

Input: Edit the review item

Output: The item is displayed on the screen.

#### 0 Functional Requirement 7: Verification

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

##### R.7.1:- Content is OK

Input: Cross checks the review or article uploaded by any other registered user.

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

##### R.7.2:- Content is not OK

Input: Cross checks the review or article uploaded by any other registered user.

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



O

## Functional requirement 8: Follow Us

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

Output:- If accepted then display thank you message.

3.2

## Conceptual Diagram

Once all the requirements have been collected and analyzed the next step is to create a conceptual schema of SRS. Using a high-level conceptual data model. This phase is an Entity-Relationship (ER) diagram. It is a high-level data model of the specific requirements. It includes the definition of all the concepts (entities, attributes) of the application area. It describes how different entities (objects, items) are related to each other.

- Level 0 DFD  $\Rightarrow$  Context Diagram

- Level 0 DFD  $\Rightarrow$  TOI User Page

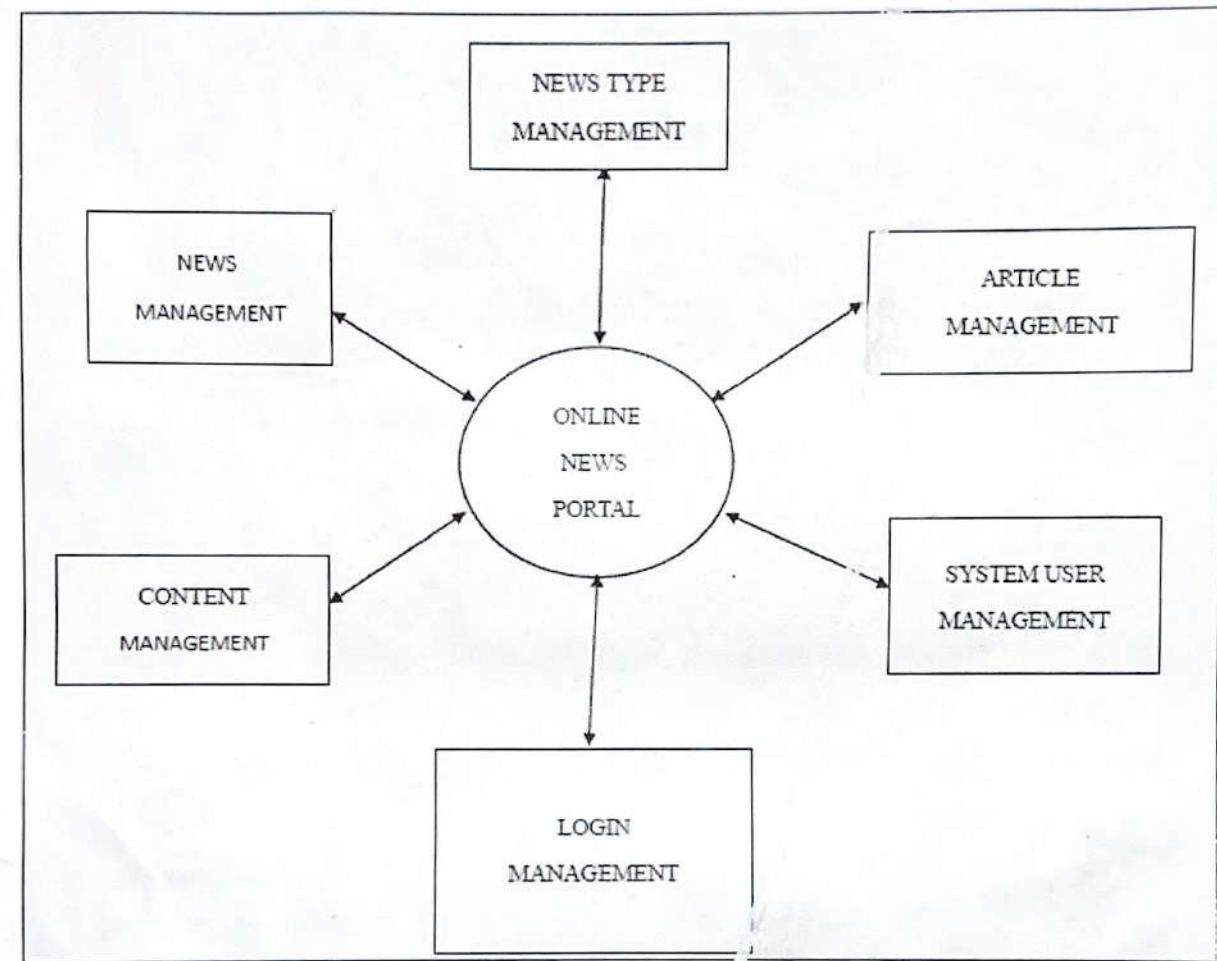
- Level 1 DFD  $\Rightarrow$  TOI requirements



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Level 0 DFD

Signature



## 4. Non-Functional Requirements

These are the requirements that are non-functional in nature. Especially these are the constraints the system must work within.

- System/Performance Requirements:-

The System response time must be less than 30 seconds for the user interface. Otherwise the system will show TIMED OUT.

- Reliability Requirements:-

The system shall have a minimum capacity/uptime of 99% excluding time pre-scheduled for maintenance and/or grades.

- 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 is future.

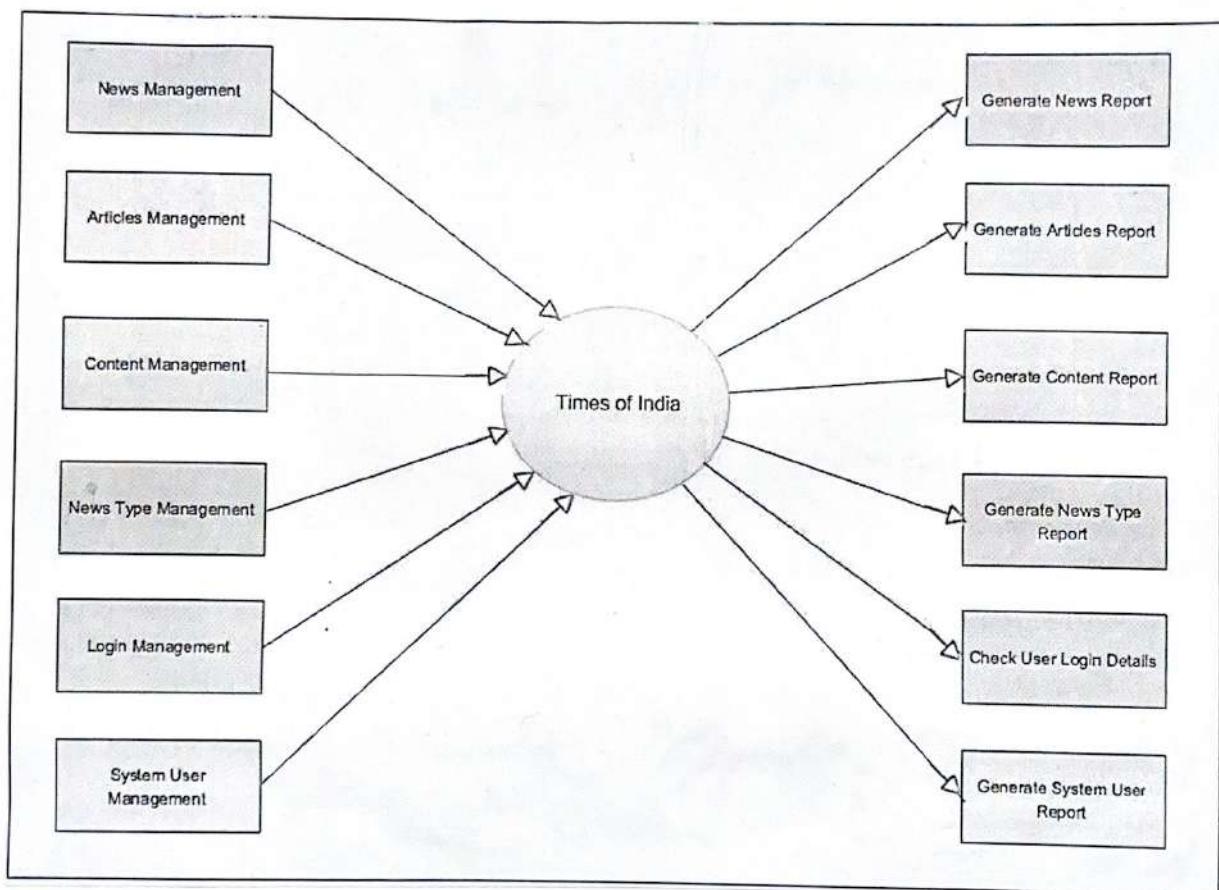
### 4.1 Availability



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Context Diagram

Signature



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

#### 4.2 Security:-

The Portal should provide the security of customer login details.

#### 4.3 Maintainability

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

##### • 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 article by user should make changes in database also but after publisher accepts it and the site should contain the database of users.

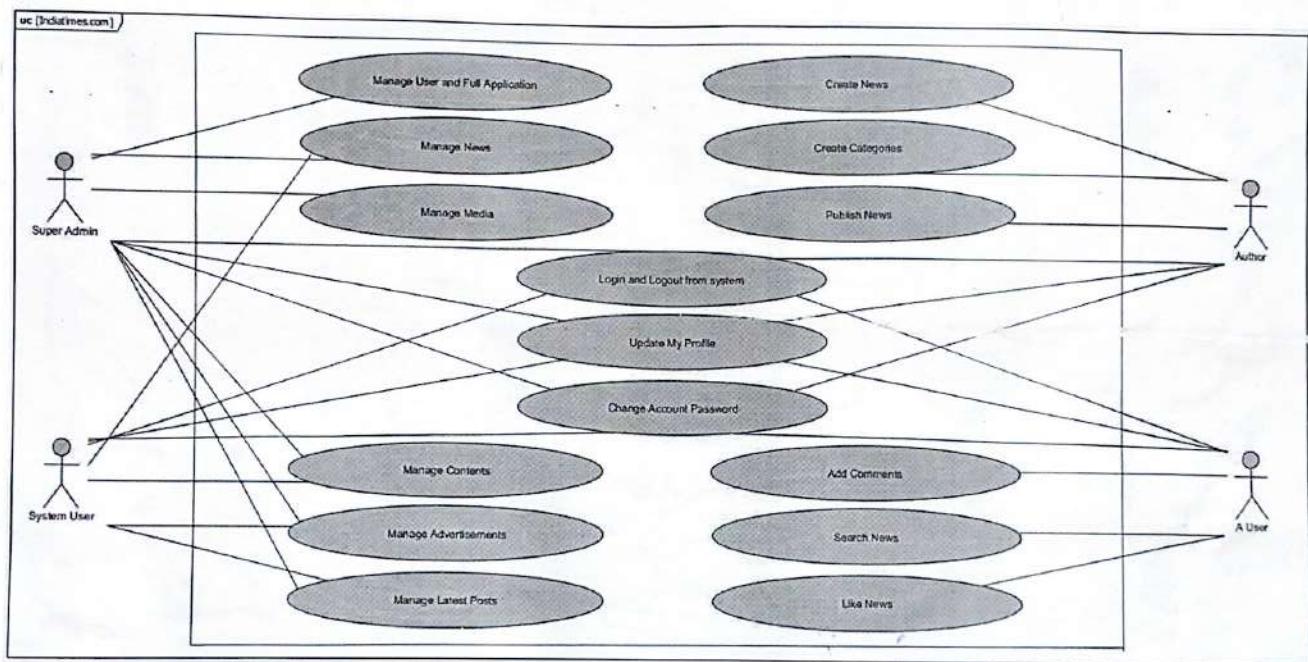
### 5. Constraints

##### • Language Requirement

Software must be only in English

##### • Budget

Due to limited budget, TOI is intended to very simple and just



level 1 DFD

Signature



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for basic functionalities.

- Implementation Constraint

Affilicant, Should be based on java  
only.

- Reliability requirements

System Should sync frequently  
to Backup server in order to  
avoid the data loss failure, so it  
can be recovered.

## 6. Test Cases:

**Project Name:** Times of India

## Test Case -1

<b>Test Case ID:</b> TOI_01	<b>Test Designed by:</b> Shrey Garg
<b>Test Priority (Low/Medium/High):</b> Med	<b>Test Designed date:</b> 25-03-23.
<b>Module Name:</b> Times of India login screen	<b>Test Executed by:</b> End User
<b>Test Title:</b> Verify login with valid username and password.	<b>Test Execution date:</b> 27-03-23
<b>Description:</b> Test the Times of India login page	

**Pre-conditions:** User has valid username and password.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
1	Navigate to login page	User= abcdefgh@gmail.com	User should be able to login	User is navigated to dashboard with successful login.	Pass
2	Provide valid username	@Aman1089	User should be able to navigate to dashboard	As expected	Pass
3	Provide valid password	Password: 1234	It should be login successfully.	As expected	Pass
4	Click on Login button	Values can be entered	It should be redirected to login page.	As expected	Pass

**Post-conditions:**

User is validated with database and successfully login to account. The account session details are logged in database.

**Project Name:** Times of India

## Test Case -2

**Test Case ID:** TOI\_02

**Test Priority (Low/Medium/High):** High

**Module Name:** Times of India Application

**Test Title:** Verify TOI opens on all Operating System.

**Description:** Test the Times of India Home page

**Test Designed by:** Shrey Garg

**Test Designed date:** 26-03-23

**Test Executed by:** End User

**Test Execution date:** 28-03-23

**Pre-conditions:** The system has required software configuration.

Test ID	Test Cases	Test Steps	Expected Result	Actual Result	Status (Pass/Fail)
T01	Verify Home Page	Double click on news icon or launch/open it	Access the TOI website URL.	The Home Page should load successfully with a header, footer and navigation menu.	Pass
T02	Verify navigation Menu	Select City under menu and click on it.	Check the navigation menu items by hovering over each menu item	The sub-menu items should be displayed with links to relevant pages.	Pass
T03	Verify News Categories	On top-right corner select News Button.	Check the news categories by clicking on each category in the navigation menu	The news category page should be displayed with news article listed under each category.	Pass
T04	Search for a News	Click on search button and type specific news or article name and then enter.	Search for a news article by entering valid search criteria in the search bar	The search results page should be displayed with relevant news articles matching the search criteria.	Pass

**Project Name:** Times of India

### Test Case -3

**Test Case ID:** TOI\_03

**Test Priority (Low/Medium/High):** Med

**Module Name:** Times of India function

**Test Title:** Verify TOI all features are working

**Description:** Test the Times of India features

**Test Designed by:** Shrey Garg

**Test Designed date:** 27-03-23

**Test Executed by:** End User

**Test Execution date:** 29-03-23

**Pre-conditions:** The system has required output from User.

Test ID	Test Cases	Test Steps	Expected Result	Actual Result	Status (Pass/Fail)
T1	Share a News Article	ON three dots click and select the share option.	Share a news article by clicking on the share button and selecting a social media platform	The news article should be shared successfully on the selected social media platform.	Pass
T2	Comment in a News Article	Click comment on it option in the bottom last of article	Comment on a news article by entering a valid comment in the comment section	The comment should be posted successfully with the user's name and profile picture displayed.	Pass
T3	Bookmark a News Article	A bookmark symbol on screen is visible click on it	Bookmark a news article by clicking on the bookmark button	The news article should be bookmarked successfully with a success message displayed.	Pass
T4	Read a News Article	In the middle, read option appears after-search, click on it.	Select a news article from the news article page and read the full article	The full article should be displayed with relevant images and videos.	Pass