[Citizen Journalism]

BS COMPUTER SCIENCE

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Software Requirements Specification

Version 1.0

Citizen Journalism

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Revision History

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| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
| New document | 25-12-2016 | No change, first time SRS is written. | Version 1 |
|  |  |  |  |
|  |  |  |  |

# Introduction

Now a days, Electronic, Social and Print media are widely used to get all the news and information. That information could be biased because a single platform like news channels cannot represent public point of view on an issue. Therefore we are implementing an idea of *Citizen Journalism.*

The idea behind *Citizen Journalism* is that people without professional journalism training can use the tools of modern technology and the global distribution of the Internet to create, augment or fact-check media on their own or in collaboration with others. For example, you might write about a city council meeting on your blog or in an online forum. Or you could fact-check a newspaper article from the mainstream media and point out factual errors or bias on your blog. Or you might snap a digital photo of a newsworthy event happening in your town and post it online.

Citizen journalism is public participatory reporting. In citizen journalism citizen plays an active role in the process of collecting, reporting, analyzing, and disseminating news and information.

## Product

Our product named *“Citizen Journalism”* will provide unbiased information and point of views of people also by collecting and analyzing data of social sites like Twitter and Facebook. We are providing a platform to our community to have a multiple and diverse point of views on hot topic and news but more significantly this is on single platform.

Most of news that we get are from some news channels but their opinions could be biased and one person like anchor, reporter cannot represent whole public, therefore we need a platform where every individual could get a chance to represent his/her point of view and through this way we will end up into an unbiased platform for our community. The reason to design this kind of platform is that we don't want our decisions to be influenced by one person opinion, that person can be a news caster a reporter or can be celebrity. Another reason is people do not have any platform to represent their views on a problem, special events and on hot news. This site will let people know about new technological advancement and also about current technology based projects in Pakistan. After this we will not have one source of information like news channels and newspaper where information could be biased but now this public representative platform will let us know about their diverse perspective.

Our product *“Citizen Journalism*” is a web application. It is central information based platform. It is trying to fill gap between T.V news and public news. People can also give their point of view on

current topics, issues or any policy etc. User will also get personalize news from it by creating his account on *Citizen Journalism.* So, it will help to know real picture of discussion/problems.

## Scope

Initially*,* our project *“Citizen Journalism”* is limited to Pakistan only. In this we are collecting information from News channels, General Public and TV anchors. This information consist of Politics, Sports, Technology, Entertainment and General News.

### Inclusion

* It will provide Hot News related to Politics, Sports, Technology, and General News and provide a gap graph between T.V news and public news.
* When a user will login, a profile will be created against his name. It will be helpful to provide him personalize news related to his interest.
* When a user will login we will show him top trends (Top stories) that could be a news or any other special discussion.
* In the tab of “hot topics” our system will show most discussed topic of a day and top five tweets related to that topic that will help people to understand the summary of that discussion. It will also show statistic by some graphs that how people point of view varies on this “hot topic”. Every user can also give his views by commenting on those statistical graph. About that, hot topic we will also shows numbers how many people tweets about it.
* User can also search by “keyword”. In result of that keyword our system will show top five tweets about that keyword along with numbers that how many people used this word in their tweets.it will also give list of top 5 people who are talking about it this most frequently. In the end against that query system will show views discussed on new channels and some graph that will show opinion of news channel and opinion of people about his query.
* Query result will be in three categories opinion of public, anchors and news channels. It will be helpful to compare opinion from different resources.
* Every query will give result by comparison of people, anchor, and news channels (as some kind of graph) or top 5 tweets by each category.
* User can also search by specifically to some person. As a result system will respond a graph (bar chart) that will show about which topics this person talks a lot. It will be helpful to know activities of that person.
* It will also tell which query is searched a lot in our system
* User can also download graphs or some other information related date from our website it will also keep track how many people downloaded it
* We will release unbiased newspaper obtained through our web application.

## Business Goals

As describe earlier, our project named *Citizen Journalism* would be a web application. In business model, we are selling newspaper obtained by this web application and we will sale statistic to universities or researcher to help them. Later on, we will also get money through AdSense.

## Document Conventions

* Font theme “Times New Roman” is used in this document.
* Heading 1 has font theme “Times” and font size 18 with bold
* Heading 2 has font theme “Times” and font size 14 with bold
* Heading 3 has font theme “Times” and font size 12 with bold
* Body of document has font theme “Times New Roman” and font size is 12
* Space between lines is 20 points exactly
* Citizen Journalism written in italic like this “Citizen Journalism” between this document refers to our project name(Our web application)

## References

<References should be IEEE style font size 8, Times New Roman.>

## Product Features

1. Provide unbiased news
2. Provide Hot topic
3. User can comment against every information our platform will provide
4. Social active person
5. Personalize news
6. Web User can search for query and person
   1. Provide comparison of news if news is searched by keyword
   2. Provide most discussed topic by user if it is search by a person
7. News related to technology, sports, entertainment and politics
8. Analysis of a person’s biasness towards any topic
9. Enhancing the concept of citizen journalism.
10. It would be a central information based platform(website)
11. By the end of this project we will be able to provide unbiased newspaper (on our website) with respect to interest of user.
12. Trying to fill the gap between T.V news and public news.
13. Informing about local issues of Pakistan
14. With help of twitter’s data we will be able to know people’ needs, their likes and dislike. It will help people in business as they will know which good field for investment.
15. Information related to new projects of Pakistan Government can be find there.
16. People will be able to give their point of view on current topic, issues or any policy etc. So, we will be able to know real picture of discussion.

## User Classes and Characteristics

There are mainly two types of users for our product “Citizen Journalism” .One is the person who will create account on our website will get personalize news also. It could be an internet user who have account on social media so that we would be able to provide information more precisely to their interests. And other is the person who will simply use it to get all news.

Our user will be educated people, people who can read English language. Because all news and information would be in English.

These users lying in the lowest privileges to our product because we are not providing them any access to our system due to security reasons. They have only access to information that is provided on website.

As we are providing different types of statistic related to news so researcher would also be one of our users.

## Operating Environment

Our software named “Citizen Journalism” is a web application. It can be accessed through any Web browser like Google chrome, Mozilla Firefox etc. These browsers can be install on any PC based Operating System or it would be on any mobile based Operating System. So, there is no restriction for operating environment.

## Design and Implementation Constraints

<Describe any items or issues that will limit the options available to the developers. These might include: corporate or regulatory policies; hardware limitations (timing requirements, memory requirements); interfaces to other applications; specific technologies, tools, and databases to be used; parallel operations; language requirements; communications protocols; security considerations; design conventions or programming standards (for example, if the customer’s organization will be responsible for maintaining the delivered software).>

## Assumptions and Dependencies

<List any assumed factors (as opposed to known facts) that could affect the requirements stated in the SRS. These could include third-party or commercial components that you plan to use, issues around the development or operating environment, or constraints. The project could be affected if these assumptions are incorrect, are not shared, or change. Also identify any dependencies the project has on external factors, such as software components that you intend to reuse from another project, unless they are already documented elsewhere (for example, in the vision and scope document or the project plan).>

# Functional Requirements

Functional requirements used to be from the perspective of user. Here are use case that show how *Citizen Journalism* will work.

## Use-Case 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-I | |
| **Purpose** | | Hot topic user case | |
| **Priority** | | High | |
| **Pre-conditions** | | User is on the home page of website | |
| **Post-conditions** | | Page of hot topics is open | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User open web application. | | 1. System provides interface of website |
| **2** | 1. User click on hot topics | | 1. System shows categories of hot topics. Like sports, entertainment, politics, technology |
| **3** | 1. User click any one of those category | | 1. System provide view that that have a discussion forum. In discussion forum we have top 5 tweets and number of people who talk about it |
| **4** |  | | 1. System also show option to comment about it. |
| **5** | 1. User click on comments button to give his point of view | | 1. system asks for login to record his point of view |
| **6** |  | | **Use-Case for login** |
| **Alternate Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User click on hot topics. Hot topics does not exist | | 1. Page not found error 404 |

Table 1: UC-I

## Use-Case 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-II | |
| **Purpose** | | Home Button use case | |
| **Priority** | | Medium | |
| **Pre-conditions** | | User has opened website of citizen journalism | |
| **Post-conditions** | | Home page of website is opened | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User open web application. | | 1. System provides interface of website |
| **2** | 1. User click Home Button | | 1. System shows main page that consist of button of Hot News, Political News, Personalize news, Home, About Us, All News |

Table 2: UC-II

## Use-Case 3

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-III | |
| **Purpose** | | Tell about us(Vision) | |
| **Priority** | | Low | |
| **Pre-conditions** | | User is on any page of Citizen Journalism | |
| **Post-conditions** | | Show the page of about us | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User open web application. | | 1. System provides interface of website |
| **2** | 1. User click About us Button | | 1. System shows our vision to make this application. |

Table 3: UC-III

## Use-Case 4

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-IV | |
| **Purpose** | | Search news through keyword or search person by name | |
| **Priority** | | Medium | |
| **Pre-conditions** | | User is login and visiting any page of Citizen Journalism | |
| **Post-conditions** | | Provide page for search having option for person search or keyword search | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User open web application. | | 1. System provides interface of website |
| **2** | 1. User click on Search Query Button | | 1. System show two button named Person search or Keyword search |
| **3** | 1. User click on Person search button | | 1. **Subcase no. 1 Person Search** |
| **4** | 1. User click on Keyword search | | 1. **Subcase Keyword search** |

Table 4: UC-IV

### Subcase no. 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | Subcase no. 1 | |
| **Purpose** | | Search News of Individual | |
| **Priority** | | Medium | |
| **Pre-conditions** | | User is on Page that is providing search box to search for person | |
| **Post-conditions** | | New Page is showing results of person that is search | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User click on Person Search | | 1. System extracts keywords from his/her tweets and show cluster of his discussion. |
| **2** |  | | 1. System shows bar graph that tells his most discussed topics |
| **3** |  | | 1. System shows his top five tweets. (Most retweeted or most liked) |
| **4** |  | | 1. System also show option to comment about it. |
| **5** | 1. User click on comments button to give his point of view. | | 1. system asks for login to record his point of view |
| **6** |  | | 1. **Use-Case for login** |

Table 4.1: Subcase no. 1

### Subcase no. 2

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | Subcase no. 2 | |
| **Purpose** | | Search news by keyword | |
| **Priority** | | Medium | |
| **Pre-conditions** | | User is on Page that is providing search box to search by keyword | |
| **Post-conditions** | | Page is opened having News related to keyword | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User click on keyword Search | | 1. System show list of top 5 people who talked about it more frequently. |
| **2** |  | | 1. System shows top five tweets related to his query. (Most retweeted or most liked with that query) |
| **3** |  | | 1. System also shows top five tweets of news channels about that query for comparison. |
| **4** |  | | 1. System shows numbers of people who talked about that query search by user. |
| **5** |  | | 1. System shows a graph which depicts gap between news provided by news channels and point of view of people. |
| **6** |  | | 1. System also show option to comment about it. |
| **7** | 1. User click on comments button to give his point of view. | | 1. system asks for login to record his point of view |
| **8** |  | | 1. **Use-Case for login** |

**Table 4.2: Subcase no. 2**

## Use-Case 5

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-V | |
| **Purpose** | | Personalize News | |
| **Priority** | | High | |
| **Pre-conditions** | | User is login to Citizen Journalism | |
| **Post-conditions** | | Showing news related to interest of user | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User open web application | | 1. System provides interface of website |
| **2** | 1. User click on Personalize news Button | | 1. System ask for login so that it could see his profile and show him personalize news |
| **3** | 1. User click on Personalize news Button | | 1. System provide web page that has two option Sign in or sign up. |
| **4** | 1. User has option sign in through Facebook, Google plus or through account created on our website. | | 1. If user account exist according to system’s database it will show his personalize news 2. Otherwise it will show message to user his account does not exist or he forget his username or password(System will also show sign in page again) |
| **5** |  | | 1. If sign in successful System analyze interest of user by his/her profile and shows categories accordingly |
| **6** | 1. User click on desired category | | 1. System provide view that that have a discussion forum. In discussion forum we have top 5 tweets and number of people who talk about it. |
| **7** |  | | 1. System also shows top five tweets of news channels about that query for comparison. |
| **8** |  | | 1. System also show option to comment about it. |
| **9** | 1. User click on comments button to give his point of view. | | 1. System provide field to comment on it |
| **10** | 1. User enters comment and press publish | | 1. System publish comment on website |

Table 5: UC-V

## Use-Case 6

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-VI | |
| **Purpose** | | Login to Citizen Journalism | |
| **Priority** | | High | |
| **Pre-conditions** | | User is opening sign in page of Citizen Journalism | |
| **Post-conditions** | | User is log in to *Citizen Journalism* and showing home page | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User open web application | | 1. System provides interface of website. That has option to sign in or sign up. |
| **2** | 1. User has option sign in through Facebook, Google plus or through account created on our website. | | 1. If user account exist according to system’s database it will sign in. |
|  |  | | 1. If user account exist according to system’s database it will show his personalize news |
| **Alternate Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** | 1. User has option sign in through Facebook, Google plus or through account created on our website. | | 1. Otherwise it will show message to user his account does not exist or he forget his username or password(System will also show sign in page again) |
| **2** |  | | 1. System provide him option to sign up. He/she can login through Facebook or Google plus. He/ she can also sign up through form provided by Citizen Journalism. |

Table 6: UC-VI

|  |  |  |  |
| --- | --- | --- | --- |
| **Identifier** | | UC-II | |
| **Purpose** | | … | |
| **Priority** | | <Choose one from {High, Medium, Low}> | |
| **Pre-conditions** | | … | |
| **Post-conditions** | | … | |
| **Typical Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** |  | |  |
| **2** |  | |  |
| **3** |  | |  |
| **…** |  | |  |
| **Alternate Course of Action** | | | |
| **S#** | **Actor Action** | | **System Response** |
| **1** |  | |  |
| **2** |  | |  |
| **3** |  | |  |
| **…** |  | |  |

# Nonfunctional Requirements

Here we specify some nonfunctional constraints that the program satisfies in order to be more concrete and stable.

## Performance Requirements

**Performance**: checking the fact that the system must perform as what every user expects .So in every action-response of the system, there are no immediate delays. In case of opening new page by pressing button, of popping error messages and saving the settings or sessions there is possible delay of almost 2 seconds. In case of query, when system has to bring information by opening databases, and computing there are no delays and the operation is performed almost 2 seconds for opening, querying, computing > 95% of the files.

Also when connecting to the server the delay is based on the distance of the 2 systems and the configuration between them so there is high probability that there will be or not a successful connection in less than 20 seconds.

It can take more than 2 seconds when user search news by keyword or person because it has to manipulate at an eleventh hour to show results.

## Safety Requirements

There would be a safe place for server so that irrelevant people are not allowed to access it.

**Consistency**: Checking the fact that all the users must be attachable to one server, so there would be appropriate control of for their queries. Also in case of a potential loss of connection between the user and server the user’s query will be lost.

Server would be placed in appropriate temperature.

## Security Requirements

### Malicious users:

* Trying to keep our Web server computer physically secure so that unauthorized users cannot get to it, turn it off, or take it.
* Use the Windows NTFS file system, not FAT32. NTFS offers substantially more security than FAT32
* Secure the Web server computer and all computers on the same network with strong passwords.
* Close unused ports and turn off unused services.
* Run a virus checker that monitors inbound and outbound traffic.
* Establish and enforce a policy that forbids users from keeping their passwords written down in an easy-to-find location.

### Application Privileges level:

When application runs, it runs within a context that has specific privileges on the local computer and potentially on remote computers. For information on configuring the application identity

* Do not run your application with the identity of a system user (administrator).
* Run the application in the context of a user with the minimum practical privileges.
* Set permissions (Access Control Lists or ACLs) on all the resources required for your application. Use the least permissive setting. For example, if practical in your application, set files to be read-only. For a list of the minimum required ACL permissions required for the identity of ASP.NET application.
* Keep files for your Web application in a folder below the application root. Do not allow users the option of specifying a path for any file access in your application. This helps prevent users from getting access to the root of your server.

### Access Databases Securely:

* Using the inherent security of database to limit who can access database resources.
* Using integrated security so that only Windows-authenticated users can access the database. Integrated security is more secure than passing explicit credentials to the database.
* If application involves anonymous access, creating a single user with very limited permissions, and perform queries by connecting as this user.
* We are not creating MongoDB statements by concatenating strings that involve user input. Instead, we are creating a parameterized query and use user input to set parameter values.
* We are storing user name and password to use login credentials in the If you must store a user name and password somewhere to use as the database login credentials, Web.config file and secure the file with protected configuration.

## Software Quality Attributes

### Scalability

It is scalable in respect of both front end and back end. Because our design is adaptable in case of any new functionality we can add it without effecting design a lot. For database we are using MongoDB it can handle any kind of data and there is no structure dependencies to add data.

### Availability

Checking that the system always has something to function and always pop up error messages in case of component failure. In that case the error messages appear when something goes wrong so to prevail availability problems.

### Usability

System is simple to user. Checking that the system is easy to handle and navigates in the most expected way with no delays. In that case the system program reacts accordingly and transverses quickly between its states.

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 F: Defect Removed

Advisor Name Signature

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S#** | **Defect Description** | **Origin Stage** | **Status** | **Fix Time** | |
| **Hours** | **Minutes** |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| … |  |  |  |  |  |

**Table 2: List of non-trivial defects**