Software Requirements Specification

for

FESTEVE

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of Fest Management Application, named 'Festeve'. This documents elaborates the functionalities and utilities of the App, jots down the detailed study of the interfaces and features along with the constraints under which the app should operate. It also lists down the functional and non-functional requirements of the application. The document, thereby, intends to serve as a complete guide for the understanding the work flow of the application.

1.2 Document Conventions

Text-Type	Font	Style	Size
Main-Heading	Times	Bold	18
Sub-Heading	Times	Bold	14
Others	Calibri	Regular	10.5

1.3 Intended Audience and Reading Suggestions

This project is being designed and developed for college/university students to ease out the job of organizing, handling, promoting and browsing for fests. But this project can be used in broadening our concept by any organisation. Therefore, this SRS is specifically designed and dedicated to project development team which includes developer, coder, tester, project manager, user and the document writer.

Intended Audience

a) Users : The document provides the full usability and functionalities of the project to its users and customers so to ensure that the application is meeting its requirements and that the users can actually rely on the system.

b) Developer : The project developer needs to refer to this document in order to be able to deliver what the user wants and what the project promised to deliver to its users.

c) Project manager : The document is required by the project manager to evaluate time to completely develop the project and estimate the cost easily. This will also help to cross check the functioning of the project and ensures reliability.

d) Tester : In order to test a project about its functioning, one needs to be fully aware of the features and functions that the project promised to deliver. So the tester needs to go through this so that he can validate its working.

e) Document Writer : The document lays down the format and notions to follow while writing down SRS. So this will be helpful to the one who is writing this document.

Reading Suggestions :
a) The user may read the whole document but overall description, introduction and system features would suffice to have an insight about the project's working.
b) The project manager should necessarily go through system features.
c) The developer is required to read the whole document for complete knowledge of the project.
d) The designer should specifically note down the class and use case diagram for coding.
e) The tester must checkout code section.

1.4   Product Scope

Purpose and Benefits:
The product being talked about in this document is a fest management android application, called as Festeve. The main purpose of this application is to build up a common space for both the fest organizers and the viewers or participants. The application is being developed due to an unorganized and incomplete details, in current apps, about a certain fest or its events to the students or audience. Therefore, there is a need for such a platform where the students can quickly get an access to details regarding these events going on around him/her. This way the problems faced by the students to actually dig out information related to fests will just be cured, right in their hands, by downloading this simple and useful application. The fest organisers will also be benefited by the system as it would notify them instantly regarding new registrations, visitors, withdrawals etc and they will be able to manage accordingly.

Goal:
The goal of this project is to facilitate smooth and easy functioning of the activities of both the users and fest organisers.

Business Strategy:
In order to accomplish this goal, we have decided to use the Free Business Model where users will be able to download and use it for free of cost. This has been greatly discussed and we were encouraged to adopt this methodology as it would set up an initial customer base and likelihood among users. And the revenue flow will stick to in-app advertisements only.
Further to increase the revenue, we would shift to Freemium model where the users will get some additional features for paid subscription. But this is a long term goal right now and will get in action once we get huge response for our app.

1.5   References

This document is based on IEEE830 format and takes on references from the below mentioned sites:

IEEE830 : http://home.agh.edu.pl/~jsw/io/IEEE830.pdf
Sample SRS of Library Management System :
https://www.scribd.com/document/120409579/Library-management-system-srs

2.   Overall Description

2.1   Product Perspective

The product being specified in this SRS is a replacement for certain existing systems as this app provides much more features and usability to its users than the contemporary apps. One of its perspective can be stated as that this system engages the two group of users, i.e., normal users and fest administrators in an indirect and systematic conversation without an actual dialogue, just through their preferences and priorities. The project greatly focuses on improving user experiences and free them of the strenuous and laborious tasks.

2.2   Product Functions

- The customer can either sign up and get all the features of the app or he can just be a visitor with minimum basic features.

- If the user is just a visitor then he may :
    - browse
    - view fest calendar
    - view event lists
- If the user is registered one, he can access features like:
    - all functions of normal visitor
    - register for an event
    - withdraw from an event
    - get notified
    - become fest administrator
    - If the user has become fest admin, then he may :
        - create fests
        - edit fests
        - cancel fests/events
        - get notified about new registrations

2.3   User Classes and Characteristics

The user class for this product is segmented into two groups; one is a just a visitor who has not signed up and the other is a registered user who has signed up agreeing to the terms and conditions of the app.
The visitor is one who visits the app, checks or browse for an event or fest and views the fest calendar. The visitor can become a registered user and get more usability from the app.
The registered user gets in all the features of visitor but in addition gets more features and functions. The registered user can also become a Fest Administrator and get to organise a fest,

listing all its details along with appending a registration form. The fest administrator can also seal dates for its fest in fest calender.

2.4   Operating Environment

2.4.1) Development Environment

a) Software Requirement :
- Operating system - Windows 8.1, Linux
- Developing Environment - Android Studio
  - Compile SDK version - API 24:Android 7.0(Nougat)
  - Build Tools Version – 24.0.3
- Back-end - Firebase
- Front-end - XML
- Programming language -JAVA

b)   Hardware Requirements:
- PC with 2 GB RAM, Dual core processor, 20 GB Hard disk.
- Android Smartphone (For App Debugging)

2.4.2) Run Time Environment

a) Software Requirement
- Android Version min. – 4.1(Jellybean)

b) Hardware Requirements :
- Android phone with 512MB min RAM
- 1GHz Processor
- 15MB space

2.5   Design and Implementation Constraints

The design and implementation is highly dependent on Internet services for most of the advanced features. So the app connects more to those set of users.
As a developer, the only constraint which exist is that if Firebase crashes down or is temporarily unavailable, then those advanced set of utilities won't be derived from our app. This is so because our app depends on Firebase for its Back-end Facilities.

2.6   User Documentation

For User Related information, refer to Section 2.4.2, Section 3.1, Section 4.
These sections provide thorough description about user requirements and system features which may help him utilise this app more wisely.

2.7   Assumptions and Dependencies

The users have Android Smartphones with internet connectivity. The users are interested in taking part in fests or want to visit the fests.

3.   External Interface Requirements

3.1   User Interfaces

Till now we have discussed about some of the UI features and looking of our app.
This goes like this:

- For normal visitors :

Our app's main screen will have a search icon-button at the bottom right corner of the screen. The front page opens with a card view on the top which displays featured fest followed by Fest-Feeds section which is basically all the related news about fests belonging to cultural, technical and non-technical events. The side navigation drawer will have options like Fest-Calendar which will show reserved fest dates, Fest-List which will have all the fests created by fest admin users. Signup options will be provided for them to become a registered user or fest admin.

- For registered users.

The layout of the app will be same as for the normal visitors with slight change in the features and utilities derived. These users will have additional features of notification system, registration for events and withdrawal.

- For fest admins :

The navigation drawer will include some more features like create a fest, cancel a fest, participants list.

3.2   Hardware Interfaces

The Internet Connection through modem or wifi-router will be needed to record the user data to the database so that the changes are saved.

3.3   Software Interfaces

For development process, Software Interface includes Firebase which serves as Back-end for our app where all the user generted wil be stored and facilitates secure user authentication and login services. This tool has surely reduced the app development time and intense coding efforts while providing us more broader options also for UI.
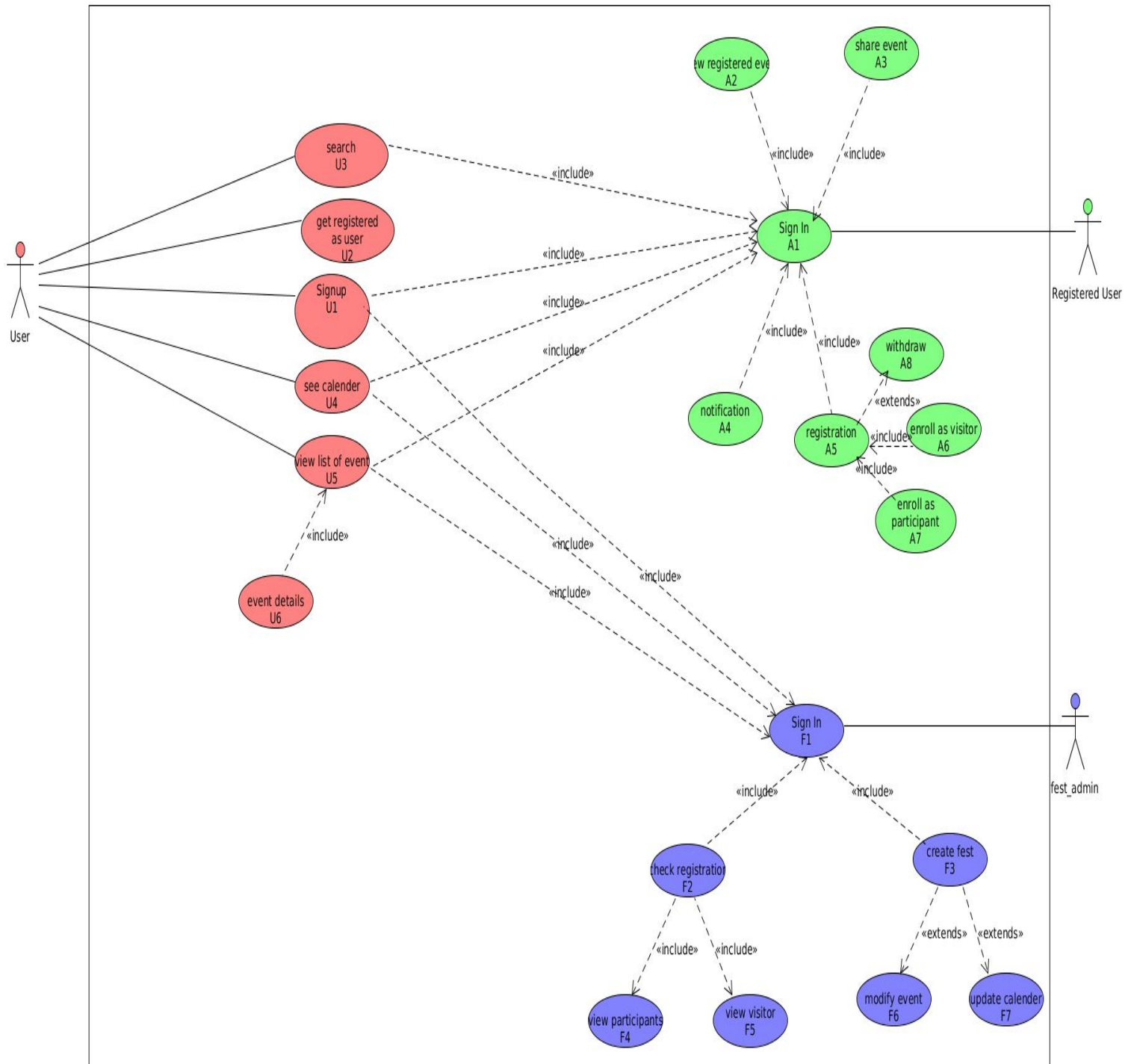
3.4 Communication Interfaces

None

4. System Features

Here are the detailed features (both functional and non-functional) provided by the application :

−→ __FUNCTIONAL REQUIREMENTS__

4.1   Sign In

4.1.1   Description and Priority

The log in feature lets a user to sign up and access all the features.
High Priority

Benefit : 9/9

4.1.2   Stimulus/Response Sequences

The user needs to fill in required details for one time sign up like name, phone number and other things. Once the fields are filled, he will be directed to a page for made for registered user having the additional functionalities. He can then do whatever he wants.

4.1.3   Functions

REQ_ID	NAME	DESCRIPTION
LRQ-1	Input	This lets the user to fill in data and information in the required field.
LRQ-2	Verification	The system should check the validity of the input.
LRQ-3	Prompt	The system should display errors to the users.
LRQ-4	Display	The system should display acknowledgment if successfully created.

4.2   Browse #Search

4.2.1   Description and Priority

The browse feature lets a user to query about one or more fest details and lets him browse through the list of fests corresponding to the input entered.

Medium Priority
Benefit : 7/9

4.2.2   Stimulus/Response Sequences

The user needs to enter any fest name or college/university name as an input and the app displays the result of the corresponding fest details.

4.2.3   Functions

REQ_ID	NAME	DESCRIPTION
BRQ-1	Input	The system should accept only strings .
BRQ-2	Search	The system should search over

		the database to find appropriate result and it should be fast enough.
BRQ-3	Display	The system should display the required result to the user.

4.3   View Registered events   **#Registered Events**

4.3.1   Description and Priority

This feature will keep record of events which are enrolled by the registered users and will contain all the details about each of those fests.

Low Priority
  Benefit : 6/9

4.3.2   Stimulus/Response Sequences

The user when selects the option in the side panel to view registered events, he is directed to a page having fest name, college name, his registered event, date, location, and paid amount. He further has an option to withdraw from that particular event.

4.3.3   Functions

REQ_ID	NAME	DESCRIPTION
VRQ-1	authenticate	To view the registered events, the system should verify if he is a registered user
VRQ-2	search	Search the database respective of user
VRQ-3	display	The system should fetch all the related details

4.4   Interested Event

4.4.1   Description and Priority

The application maintains a separate list displaying all the fests he is interested in so as to make it easy for them to register later and gets notified about it every time he open up the app.

Medium Priority
  Benefit : 7/9

4.4.2   Stimulus/Response Sequences

The user can select the fest he is interested in and click on 'Interested' button provided in-front of the fest name. The action is stored in database and this fest gets added to his list.

4.4.3 Functions

REQ_ID	NAME	DESCRIPTION
IRQ-1	authenticate	To view the registered events, the system should verify if he is a registered user or not.
IRQ-2	display	The system should fetch all the information related to this user and display it.

4.5 User Notification

4.5.1 Description and Priority

This feature will notify the registered user about events in which he is interested or he is registered. This feature will also give the notification of the fest which are in nearby areas.

Medium Priority
Benefit : 9/9

4.5.2 Stimulus/Response Sequences

The system records for the changes in the fests table and then save those changes to the user's notification table. Whenever the user access net then the notification will pour in.

4.5.3 Functions

REQ_ID	NAME	DESCRIPTION
URQ-1	Check changes	The system checks continuously for the changes
URQ-2	Notify	Displays those notification to the users.

4.6 Register

4.6.1 Description and Priority

The register feature lets a registered user to enroll itself in any event it is interested in.

High Priority
Benefit : 8/9

4.6.2   Stimulus/Response Sequences

The user needs to select the fest he is interested in and then click on the register button which will fetch him a form wherein he needs to fill in the required details. These details will be recorded in database and and the new entry will be notified to the fest admin.

4.6.3   Functions

REQ_ID	NAME	DESCRIPTION
RRQ-1	Select event	The user must select the event he want to participate in.
RRQ-2	Fill	Displays the registration form to the user where he needs to fill the required details.
RRQ-3	Acknowledgment	This acknowledges the user that he has successfully completed his registration
RRQ-4	Add to list	The event is then added to the registered event list of that user.
RRQ-5	Notify administrator	This then notifies the admin about the new registration.

4.7   Withdrawals

4.7.1   Description and Priority

This feature will let user to withdraw his registration from an registered event.

High Priority
Benefit : 8/9

4.7.2   Stimulus/Response Sequences

The user needs to select the event in which he is enrolled and then touch the withdrawals button to cancel his registration.

4.7.3   Functions

WRQ_ID	NAME	DESCRIPTION

| WRQ-1 | Select Fest | The user must select the fest/event from which he wants to withdraw his name. |
| WRQ-2 | Refresh | The system should then refresh the tables and display the changes. |

4.8   Create Fest

4.8.1   Description and Priority

This feature will let the fest admin to create fests.

High Priority
Benefit : 8/9

4.8.2   Stimulus/Response Sequences

The fest admin must hit the create fest button in his side panel. He must then   add details about the fests and hit submit button. The admin should also make a registration form for the fest.

4.8.3   Functions

CRQ_ID	NAME	DESCRIPTION
CRQ-1	Fill	Fill in the details and the system must store them.
CRQ-2	Cal_update	The calendar will be updated
CRQ-3	Make form	The user must make the form applicable for all events of the fest.
CRQ-4	Update	The system should update the fest table and the new fest should be added to the fest feed column of the application.

4.9   Fest Feeds

4.9.1   Description and Priority

This activity will disolay all the updates regarding fest

 High Priority
Benefit : 8/9

4.9.2   Stimulus/Response Sequences

 The user will click the feeds section form the navigation drawer of our app to open this activity .

4.9.3   Functions

CRQ_ID	NAME	DESCRIPTION
FF-1	search	Search the database for changes
FF-2	display	Display the updates in listview

4.10   Participants

4.10.1   Description and Priority

This will let the user to enroll himself as a visitor in a fest . This feature will update the participants list

High Priority

Benefit : 8/9

4.10.2   Stimulus/Response Sequences

The user will have to select the fest in which he want to participate then fill the form

4.10.3   Functions

EP_ID	NAME	DESCRIPTION
EP-1	search	Search the fest
EP-2	select	Select the fest
EP-3	fill	Fill the form

4.11   Check Registration

4.11.1   Description and Priority

This activity will display the list of enrolled participants in listview for fest admins

High Priority
Benefit : 8/9

4.11.2   Stimulus/Response Sequences

The user will click the feeds section form the navigation drawer of our app to open this activity .

4.11.3 Functions

CR_ID	NAME	DESCRIPTION
CR-1	search	Search the database for enrolled

		participants changes
CR-2	display	Display the updates in listview

4.12   Calendar

4.12.1   Description and Priority

This activity will display all the dates fest dates in calendar view

High Priority
Benefit : 8/9

4.12.2   Stimulus/Response Sequences

The user will click the calendar section form the navigation drawer of our app to open this activity .

4.12.3   Functions

CL_ID	NAME	DESCRIPTION
CL-1	search	Search the database for added fests changes
CL-2	fetch	Display the dates in calendar

4.13   Admin Notification

4.13.1   Description and Priority

This activity will only available to admin and will display the notifications regarding any enrollments and query

High Priority
Benefit : 8/9

4.13.2   Stimulus/Response Sequences

The admin will click the bell icon in app bar to access this feature

4.13.3   Functions

AN_ID	NAME	DESCRIPTION
AN-1	search	Search the database for updates in participant list
AN-2	display	Display the updates in notification format

4.14   Modify Fest

4.14.1   Description and Priority

This activity will let the admin to modify a created fest

High Priority
Benefit : 8/9

4.14.2 Stimulus/Response Sequences

The user will click the Modify fest section form the navigation drawer of our app to open this activity .

4.14.3 Functions

MF_ID	NAME	DESCRIPTION
MF-1	search	Search the database for fest created by desired administrator
MF-2	display	Display the updates in list view
MF-3	open	Open the fest which he wants to modify
MF-4	save	Save the modifications

---→ Nonfunctional Requirements

Requirement ID	Name	Description4
4.1	Performance Requirements	• The software will be development based on the concepts of OOPs. • The performance of every function and every module should well defined and visible. • To improve accuracy and reliablity, testing must be done at each level of designing.
4.2	Safety Requirements	• There are no safety requirements till now.
4.3	Security Requirements	• Proper security regarding the user data must be taken care of. • The data should be properly recorded in users database.

| 4.4 | Software Quality Attributes | Availability - The software is easily available to all Android Smartphone users. Accuracy - The software functions accurately. Reliability - The software works efficiently and produce the results satisfying users and so increases reliability of the system. Simple – The software will have easy UI so the users are able to grab the features. Low space – The software will take up less space on the systems. Robust Usability – The software has a lot to give out and hence has high usability Cost-effective – The software is free to be used by any user. |

5. Other Requirements

None

Appendix A: Glossary

app : application
admin : administrator
cal update : calender update