SRS for AakashTechSupport Documentation

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ATS

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Contents:

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We the summer interns team of Aakash Portal are over helmed in all humbleness and gratefulness to acknowledge our depth to all those who have helped us to put our ideas and assigned work, well above the level of simplicity and into something concrete.

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DECLARATION

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included. We have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Aakash Portal Team Date: 30-06-2013

List of Diagrams

A list of diagrams.

- Use case diagram of the Ticketing System

- Use case diagram of the Login and Registration system

- Use case diagram for Discussion Forum

- Level 0 data flow diagram for Aakash Portal

- Level 1dat a flow diagram for Aakash Portal

- Flow chart for Report Problem

- ER diagram for Database

Product Perspective

The product is supposed to be an open source, under the GNU general Public License. It is a web based system implementing client-server model. The Aakash portal System provides simple mechanism for users to share and acquire knowledge.

The following are the main features that are included in Aakash Portal

- Cross platform support: Offers operating support for most of the known and commercial operating systems.

- User account: The system allows the user to create their accounts in the system and provide features of updating and viewing profiles.

- Number of users being supported by the system: Though the number is precisely not mentioned but the system is able to support a large number of online users at a time.

- Search: search is simply local search engine based on key words.

- Discussion Forum: Provides users with a platform to discuss and help each other with their problems

- Ticketing system: Allows user to submit his issue to the admin in case his problems are not solved by FAQs and discussion forums.

- FAQs section: Frequently asked section contain answer of problem which Aakash tablet user frequently faced.

6.1 User Characteristics

It is considered that the user do have the basic knowledge of operating the internet and to have access to it. The administrator is expected to be familiar with the interface of the tech support system.

6.2 Operating Environment

This is a web based system and hence will require the operating environment for a client and server GUI. This will be operating in the following operating environment:

6.3 Dependencies

- This software highly depends on type and version of browser being installed in the system i.e. browser version should be used which have HTML5 support.

6.4 Design and Implementation constraints

This system is provisioned to be built on the Django framework which is highly flexible.Decision regarding which database to use should be taken considering the fact that data being exchanged or stored is large, and the appropriate data management system will yield efficient performance.

6.5 Specific Requirements

6.5.1 External user Requirement

Hardware Interface

Device should be enabled with Internet.

Software interface

The user's browser should be HTML5 compatible for a satisfactory user experience.

Functional Requirements

7.1 Major functions of the Discussion Forums

- Enable a user to view questions and their corresponding answers.
- Enable a logged in user to ask questions.
- Enable a logged in user to post answers.
- Enable a logged in user to upvote and downvote answers.
- Provide an interface for the admin to approve posts so that posts are not visible without admin approval
- Enable the admin to generate reports which contains all the posts and their corresponding replies

7.2 Major functions of the Login and Registration System

- Authenticate and Login user to the webapp.
- Enable new users to register to the tech support system.
- Enable a registered user to change his password if he forgets his password.
- Enable a registered user to update his profile which includes his location, skills and profile picture.
- Enable a registered user to view his profile. Additional information viz. questions asked by him and answers posted by him are also displayed.

7.3 Major functions of the Ticketing System

- Enable a registered user to submit a ticket, which contains a detailed explanation to his problem.
- Enable a registered user to view his submitted tickets.
- Enable a registered user to close a ticket submitted by him.
- Enable the admin to view open and closed tickets.
- Enable the admin to post a reply to a submitted ticket.
- Enable the admin to view ticket statistics viz. open and closed tickets breakup, ticket traffic, category-wise breakup of tickets.

- Enable the admin to generate reports which contains details of all the tickets submitted so far.The admin can also select which particular details he wants through an interface.

7.4 FAQs (frequently asked questions)

In this section, solution of General problem that user currently facing in Aakash Tablet is provided.FAQ Contains solutions to general problems. Both Logged in user and Guest can see the Solution.

Here Problem is divided into 3 sections they are:

- Hardware Problem: Contains solution of Hardware Related Problem.
- Software Problem: Contains solution of Software related problem.
- General Problem: Here solution of General Problem is provided.

If user is not satisfied with the solution provided, Logged-in user can submit a ticket to get his problem solved.

Behavioral Requirements

Behavioural requirements of the system are described using use case view. The Following use case diagrams summarize the functional and behavioural requirements of the Aakash Portal.

- Use case diagram of the Ticketing System
- Use case diagram of the Login and Registration system
- Use case diagram for Discussion Forum

8.1 Use case diagram of the Ticketing System
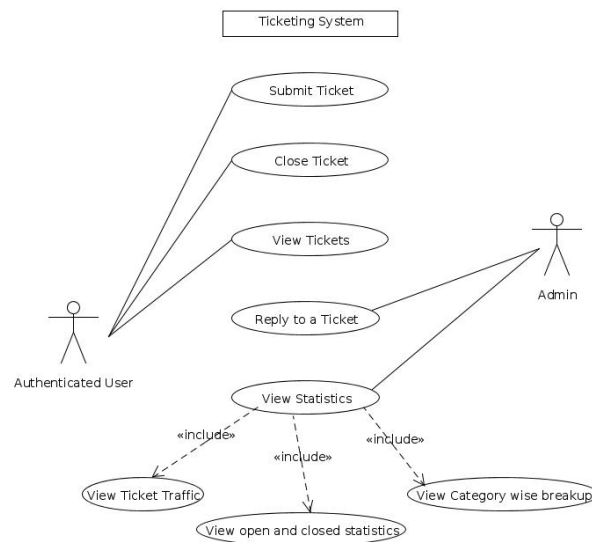
8.2 Use case diagram of the Login and Registration system

8.3 Use case diagram for Discussion Forum

Login & Registration System

Register to the system

Login to the system

Authenticated user

Admin

Profile

«include»

«include»

Edit Profile

View Profile

Discussion Forum

Add a Post

«include»

«include»

Add an answer

Ask a Question

Authenticated user

Vote a Post

Edit a Post

Unauthenticated user

Search Post

View Forum

Admin

Approve a Post
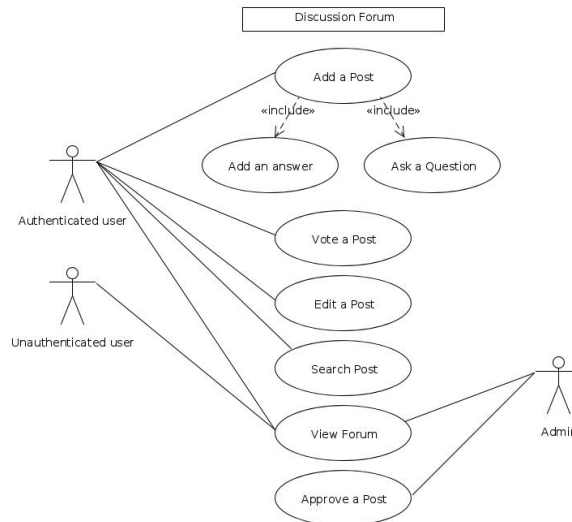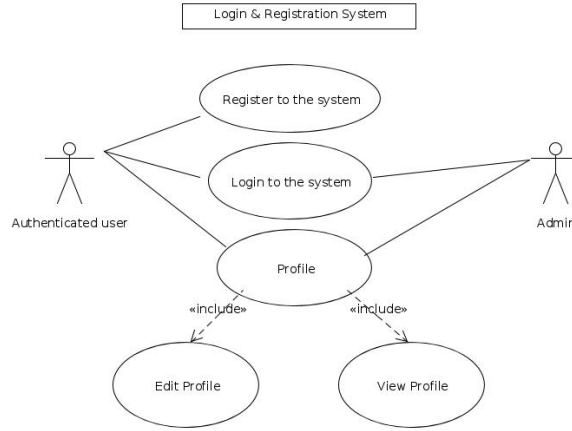
Non Functional Requirements

9.1 Performance Requirements

9.1.1 Performance

The system must be interactive and the delays involved must be less .So in every action-response of the system, there are no immediate delays. In case of opening windows forms, of popping error messages and saving the settings or sessions there is delay much below 2 seconds, In case of opening databases, sorting questions and evaluation there are no delays and the operation is performed in less than 2 seconds for opening ,sorting, computing, posting > 95% of the files. Also when connecting to the server the delay is based editing 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 for sake of good communication.

9.1.2 Safety

Information transmission should be securely transmitted to server without any changes in information

9.1.3 Reliability

As the system provide the right tools for discussion, problem solving it must be made sure that the system is reliable in its operations and for securing the sensitive details.

9.2 Software Quality Attributes

9.2.1 Availability

If the internet service gets disrupted while sending information to the server, the information can be send again for verification.

9.2.2 Security

The main security concern is for users account hence proper login mechanism should be used to avoid hacking. The tablet id registration is way to spam check for increasing the security. Hence, security is provided from unwanted use of recognition software.
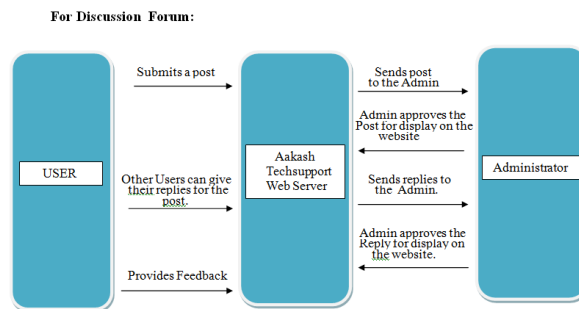
9.2.3 Usability

As 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.

Diagrammatic Descriptions

10.1 Data Flow Diagrams for Aakash Tech Support Portal

10.1.1 DFD for discussion forums

For Discussion Forum:

USER	Aakash Techsupport Web Server	Administrator

Submits a post

Sends post to the Admin

Admin approves the Post for display on the website

Other Users can give their replies for the post.

Sends replies to the Admin.

Admin approves the Reply for display on the website.

Provides Feedback

Data Flow Diagram for discussion forums

10.1.2 DFD for ticketing system

For Ticket Management System:

USER	Aakash Techsupport Web Server	Administrator

Submits a ticket regarding his/her issue (gets a ticket number)

Checks the Dashboard for viewing the tickets.

Email is sent to the user regarding reply to his/her post.

Gives reply regarding the issue of the ticket.

Can view can his tickets and close them if he is satisfied with the reply.
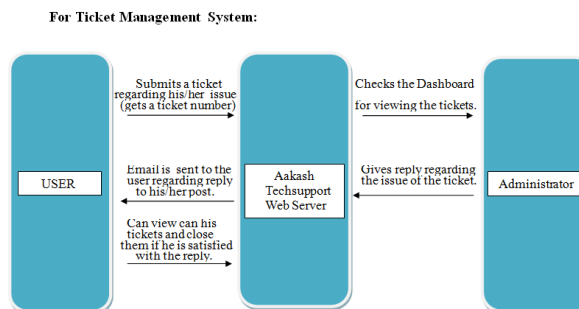
DFD for ticketing system

10.2 Sequence Diagrams

10.2.1 Sequence diagram for discussion forums

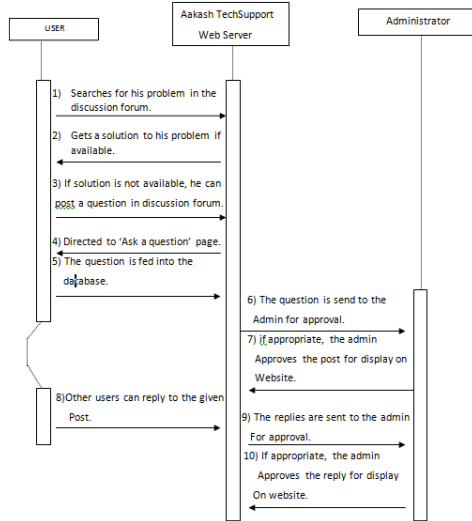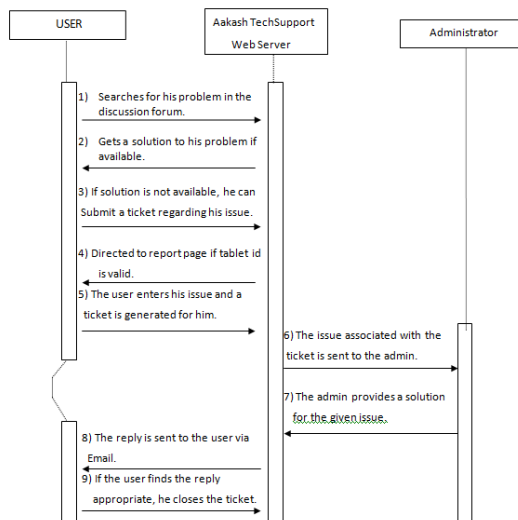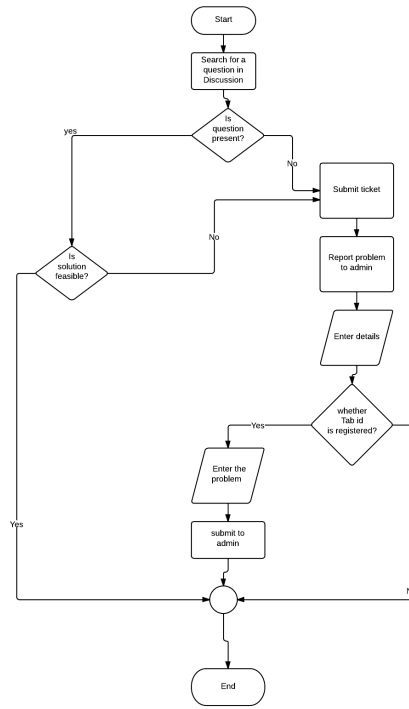Sequence Diagram for discussion forums
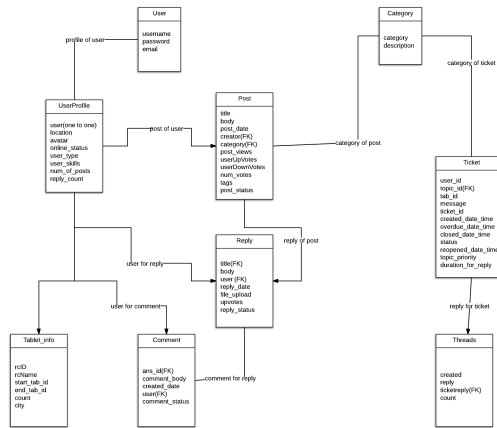
10.2.2 Sequence diagram for ticketing system

Sequence Diagram for ticketing system

10.3 Flow Chart for Reporting a Problem

Flow Chart for Reporting a Problem

Start

Search for a
question in
Discussion

Is
question
present?

yes

No

Submit ticket

No

Is
solution
feasible?

Report problem
to admin

Enter details

whether
Tab id
is registered?

Yes

Enter the
problem

Yes

submit to
admin

No

End

10.4 Entity relationship diagram

User
username
password
email

profile of user

Category
category
description

category of ticket

UserProfile
user(one to one)
location
avatar
online_status
user_type
user_skills
num_of_posts
reply_count

post of user

Post
title
body
post_date
creator(FK)
category(FK)
post_views
userUpVotes
userDownVotes
num_votes
tags
post_status

category of post

Ticket
user_id
topic_id(FK)
tab_id
message
ticket_id
created_date_time
overdue_date_time
closed_date_time
status
reopened_date_time
topic_priority
duration_for_reply

reply of post

Reply
title(FK)
body
user (FK)
reply_date
file_upload
upvotes
reply_status

user for reply

user for comment

reply for ticket

Tablet_info
rcID
rcName
start_tab_id
end_tab_id
count
city

Comment
ans_id(FK)
comment_body
created_date
user(FK)
comment_status

comment for reply

Threads
created
reply
ticketreply(FK)
count

ER Diagram for Database

Conclusion

With the continued evolution in technology, portal is becoming more and more essential now-a-days, where user can freely express their thoughts, ideas and discuss their issues that they are currently facing with the technology, this is where Aakash Portal come in picture ,which provided a platform for Aakash users to discuss their issues that they are facing with the Aakash Tablet, as well as Aakash portal create an online platform which brings developers together and facilitates application development and improvement. Aakash Portal also solves the Problem very precisely and dedicatedly for each and every user .The design of this portal is very simple and user-friendly too, which make it more efficiently. Thus we can say that Aakash portal has a great scope in future for the users of Aakash tablet and Developers too.

Indices and tables

- *genindex*
- *modindex*
- *search*