

Elements of Software Construction

Accenture Ticketing System

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At least five use cases of your product (informal, such as via a sketch board, is OK)

Name	User Signup/Login
ID	1
Description	New users have to sign up an account, existing users can login and proceed with using the application.
Actors	Developers in the company
Organization Benefits	Able to track and log history of users contribution and actions within the application. To avoid internal complications and conflicts within the developing team and the company
Frequency of use	100% due to the fact that everyone has to login to the account before starting
Tiggers	The user keys in its details and press submit
Preconditions	User must be in the homepage and not signed in yet
Postconditions	Upon signin/signup, users will be able to enjoy the features and data that the company created this application for.
Main course	<ol style="list-style-type: none">1. For an existing user, under login, key in details and press submit2. If succeed, continue to user homepage. Else prompt for re-typing of details.3. If it is a non-existing user, under signup, fill up credentials and press submit. Once success, bring the user to user homepage
Alternative course	<ol style="list-style-type: none">1. If login in fail too many attempts, prompt for 'forget' password or block account until authorized IT personnel unlocks the account for him
Exceptions	

Name	Submit Ticket
ID	2
Description	QA finds a bug, record the logs and identify the bug, and send it to the development team to review
Actors	QA and Development Team
Organizational Benefits	Effective communication, clear documentation, and log history of previous bugs.
Frequency of Use	Frequently
Triggers	The user submits a ticket
Preconditions	A bug in a software occurs and detected
Postconditions	The bug reported is logged and visible to the relevant team involved.
Main Course	<ol style="list-style-type: none"> 1. QA team finds a bug 2. Describe how to replicate the bug 3. Submit to the development team to rectify 4. The development team will be able to see the report 5. Members of the development team can assign the ticket internally 6. System redirects to view a list of existing bugs and tasks
Alternate Courses	If there are zero bugs, display “no tasks”
Exceptions	<ol style="list-style-type: none"> 1. User decides to subscribe to the report

Name	Subscribe Tickets
ID	3
Description	Be notified on any updates/progress/blockages
Actors	QA, Development Team, Clients
Organizational Benefits	Know the status
Frequency of Use	Frequently
Triggers	A user edit the ticket
Preconditions	A ticket is already created
Postconditions	An email and an SMS is sent to notify the stakeholders.
Main Course	<ol style="list-style-type: none"> 1. Client or QA team created a card 2. Development Team or Client or QA team changed certain requirements/objectives/progress, the users who track the ticket will be notified 3. Email or SMS will be sent to notify those tracking it 4. History or changelog of the ticket is updated.
Alternate Courses	<ol style="list-style-type: none"> 1. User tries to track the ticket when it is closed. Returns error notification.
Exceptions	<ol style="list-style-type: none"> 1. User wants to stop subscription or pause it due to spam

Name	Unsubscribe Tickets
ID	4
Description	Be unnotified from the subscription
Actors	QA, Development Team, Clients
Organizational Benefits	Do not want or need to know at the current time.
Frequency of Use	Frequently
Triggers	A user can change the setting by pressing the subscribe toggle button.
Preconditions	A ticket is already created
Postconditions	No email and an SMS will be sent to notify the stakeholders.
Main Course	1. User toggle the subscribe button to unsubscribe status
Alternate Courses	1. User tries to unsubscribe to the ticket when it is closed. Returns error notification.
Exceptions	1. When toggling the button, the user may be clicking faster than the user interface may react.

Name	Submit support Requests from the user
ID	5
Description	Details of requests
Actors	Primary: Administrator, QA, Development Team, Secondary: User/Client
Organizational Benefits	User's choice to choose what form the ticket will be in, eg. as Images, details, or contacts
Frequency of Use	When the user sends support requests; frequently
Triggers	The user wishes to submit a support request
Preconditions	The user must have already been logged into the page, selected the option to submit a support request
Postconditions	App function can already detect what form the ticket is in - if the ticket is in the form of an image, there is a camera function to

	sift out the information needed on the image
Main Course	<p>The user can select whether if he/she wants to submit the ticket in the form of image or form filling</p> <ol style="list-style-type: none"> 1. The user would have already registered and have logged in to the submit of support request 2. The page will then display options to select what form the request would be in 3. Either select “image” or “form” <ol style="list-style-type: none"> a. If “image” is selected, camera function would appear for the user to capture the image and then press the submit button to submit the request b. If “form” selected, user would then have to fill up the respective questions, and once done, press the submit button 4. “End of submission” page will appear upon submission of the ticket
Alternate Courses	The user selects the wrong option
Exceptions	<ol style="list-style-type: none"> 1. Image is unclear 2. Details in the form are filled in incorrectly

Project timeline and distribution of workloads 1%

Milestones to achieve:

1. Talk to Accenture and clarify our doubts, discuss what stacks, frameworks, the database we are going to use (W1-W2)
2. Do cases and write up on the features we want to implement (W2)
3. Build the basic startup stack such as user sign in and CRUD operations syncing with database (W3-W6)
4. Check with Accenture if the function is what they need (W7)
5. Edit Front-end and beautify the outlooks of the product (W8 - W9)
6. Launch it to AWS as a web-app (W10)
7. Launching it to the app store (W11-W12)

Chloe - Frontend

Yi Jie - Backend

Bryan - Backend/Cloud server

Clarification of doubts or gaps in the requirement 1%

- 1) What APIs will be available for ACNAPI for sandboxed testing?
- 2) Who are considered as administrators? Who are the users? What is the difference in their permissions?
- 3) What are some of the 5 most common uses of the platform and what purpose do ACNAPI and the existing platform serve?
- 4) How many users must the system support concurrently?
- 5) What is their existing solution and how are they managing the current load?

Development Process, Constraints and risks 1%

We will be using a variety of platforms like JavaScript, HTML, CSS and Node Express to achieve our deliverables.

Identification of risk:

Risk Description:

- Too many bugs coming through, insufficient QA time to validate on the web browser and OS types
- Unable to create sufficient test cases that will affect the database accuracies
- Miscommunication and lack of update of log book
- Lost of data in the process of updating the log book
- Learning a new programming language/API
- Camera function unable to capture the details correctly and accurately
- Form filling function is inaccurately filled up by the user
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Constraints:

- The database, the SQL, network, process time of database, manpower, program design, program code
- In individuals and our interactions: on how we respond when the inevitable occurs