

SW Engineering CSC648/848 Spring 2021

Docupaxx

Team 7

Milestone 2

4/8/21

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| | |
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|------|--------|

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1. Data Definitions V2

i. User - An individual who has created an account. Depending on the type of account, it has different access rights and different functionality.

- a. Individual User* - An account that can store documents, create packages, and apply to organizations. This account type should pay one time fee when registering.
- b. Organization Member* - An account that can view and download packages sent to an organization.
- c. Organization Lead* - An account that can change the APR for the organization. This account can also view and download packages sent to an organization. The account can also change the profile image of an Organization.
- d. Admin* - An account that can delete organizations and users. It can also edit the quiz questions.

ii. Organization - Teams that want to use our site to get the documents required for applications from applicants. Organizations will have one organization leader, many organization members, an organization page, and an organization package list.

- a. Organization Members* - Organization Members are users invited by the organization lead. They are managed by the Organization Lead. These users will review submissions made by applicants, make comments and give feedback on the submissions.
- b. Organization Lead* - The most authorized Organization Member of each team. The account of this user will be created while the organization is created by the site's admins, and it will be able to invite the other organization members to the organization from this account. With the privileges given to this user, the organization will be able to create the list of documents requested for application, or modify the created list.

c. Organization Page - A web page containing information about an organization.

Includes a brief description of the organization, the organization's contact information, and the list of packages an organization has for applicants to fill out.

iii. Package - A Package is a collection of many documents. Registered users are able to access their packages and send them to the organizations they are applying to. They can also have personal packages where their data is stored in an organized way in which they can easily access the documents when needed.

- a. *Document* - A document file that contains confidential information uploaded by users. It will be stored in the system with consistent format such as PDF (file), and JPEG, JPG, PNG (image). Each document size should not exceed 10MB

iv. Application Requirements Package (ARP) - ARP represents all of the requirements for an application that a given organization offers. It contains an application name that will be used to identify the application the package is for, and a description that describes in further detail the requirements of the application. The ARP also contains Application Requirements (AR).

- a. *Application Requirement (AR)* - Application Requirement represents the specific document required for a given Application Requirement Package. Application Requirement will appear as an individual entry in the ARP. And, ARP itself can consist of many Application Requirement entities (ARs).

v. Quiz - Quiz contains the set of questions for the registered user to retrieve package application requirements. The purpose of the quiz is to let the system know the intent of the user using the website, which will help determine what the next steps are for the user to get started.

- a. *Question* - Question represents a question presented to the user during a quiz. Each question will be answered through a Dropdown Search format. Depending on the answer for each previous question, the choices for the next question is dependent on that answer.

vi. SentPackage - SentPackage contains information about the package that is sent from users to organizations. This entity will also be stored in the database with relevant attributes.

- a. *SentDocument* - Documents that are in Sent Package , and also sent from users to organizations to fulfill applications. This entity will also be stored in the database with relevant attributes.

2. Functional Requirements V2

Priority 1

i . Unregistered User

1. Unregistered users shall be able to navigate to the registration page.
2. Unregistered users shall be able to create an account.
3. Unregistered users shall be able to know what features are included on Docupaxx.
4. Unregistered users shall be able to navigate to an Organization's page.
5. Unregistered users shall be able to navigate between supportive pages.
6. Unregistered Users shall be able to take a quiz.
7. Unregistered Users shall be able to skip a quiz.

ii . Individual User

8. Individual users shall be able to sign into the website.
9. Individual users shall be able to log out from the website.
10. Individual users shall be able to create a new Package.
11. Individual users shall be able to see their own Packages.
12. Individual users shall be able to remove their own Packages.
13. Individual users shall be able to give a name to a Package.
14. Individual users shall be able to select predefined Packages.
15. Individual users shall be able to attach a Document to Packages.
16. Individual users shall be able to remove Documents from Packages.
17. Individual users shall be able to remove Documents from the website.
18. Individual users shall be able to rename Packages.

19. Individual users shall be able to download any Package to the device.
20. Individual users shall be able to rename Documents.
21. Individual users shall be able to mark a required Document as ready.
22. Individual users shall be able to mark a Package as their favorite Package.
23. Individual users shall be able to see when a Package is created.
24. Individual users shall be able to search between Packages by title.
25. Individual users shall be able to search between Documents by title.
26. Individual users shall be able to navigate to an Organization's page.
27. Individual users shall be able to send a Package to an Organization.
28. Individual users shall view Comments given to them from an Organization Lead.
29. Individual users shall view Comments given to them from an Organization Member.
30. Individual users shall be able to remove Comments given to them from an Organization Lead.
31. Individual users shall be able to remove Comments given to them from an Organization Member.
32. Individual users shall be able to modify a Package after receiving Comments.
33. Individual users shall be able to get a notification if they receive any feedback for the Packages they sent.
34. Individual users shall be able to view their own Packages sent to an Organization.
35. Individual users shall be able to take a quiz.
36. Individual users shall be able to skip a quiz.
37. Individual users shall be able to view a list of organizations.

- 38. Individual users shall be able to navigate between supportive pages.
- 39. Individual users shall be able to modify their own profile pages.
- 40. Individual users shall be able to reset passwords.
- 41. Individual users shall be able to edit their email address.

iii. Organization

- 42. An organization shall be able to display its page.
- 43. An organization shall be able to display its predefined Application Requirement Packages.
- 44. An organization shall be able to receive submitted Packages.

iv. Organization Lead

- 45. An Organization Lead shall be able to sign into the website.
- 46. An Organization Lead shall be able to log out from the website.
- 47. An Organization Lead shall be able to modify the organization's page.
- 48. An Organization Lead shall manage only one Organization.
- 49. An Organization Lead shall be able to invite Organization Members to the organization.
- 50. An Organization Lead shall be able to create Application Requirement Packages.
- 51. An Organization Lead shall be able to modify Application Requirement Packages.
- 52. An Organization Lead shall be able to delete Application Requirement Packages.
- 53. An Organization Lead shall be able to create an Application Requirement for an Application Requirement Package.
- 54. An Organization Lead shall be able to modify an Application Requirement for an Application Requirement Package.

- 55. An Organization Lead shall be able to delete an Application Requirement for an Application Requirement Package.
- 56. An Organization Lead shall be able to view submitted Packages.
- 57. An Organization Lead shall be able to download submitted Packages.
- 58. An Organization Lead shall be able to search for Package by Applicant name.
- 59. An Organization Lead shall be able to comment on submitted Packages.
- 60. An Organization Lead shall be able to navigate to an Organization's page.
- 61. An Organization Lead shall be able to navigate between supportive pages.
- 62. An Organization Lead shall be able to modify his/her own profile page.
- 63. An Organization Lead shall be able to reset passwords.
- 64. An Organization Lead shall be able to remove Organization Members from the organization.

v . Organization Member

- 65. Organization members shall be able to sign into the website.
- 66. Organization members shall be able to log out from the website.
- 67. Organization members shall be able to view submitted Packages.
- 68. Organization members shall be able to search for Packages by Applicant name.
- 69. Organization members shall be able to comment on submitted Documents.
- 70. Organization members shall be able to comment on submitted Packages.
- 71. Organization members shall be able to download submitted Packages.
- 72. Organization members shall be able to see a notification if there is a new comment on a submitted Package.

- 73. Organization members shall be able to navigate to an Organization's page.
- 74. Organization members shall be able to navigate between supportive pages.
- 75. Organization members shall be able to reset passwords.
- 76. Organization members shall be able to modify their own profile pages.

vi. Admin

- 77. An Admin shall be able to sign into the website.
- 78. An Admin shall be able to log out of the website.
- 79. An Admin shall be able to add an Organization to the website.
- 80. An Admin shall be able to remove an Organization from the system.
- 81. An Admin shall be able to assign an Organization Lead to an Organization.
- 82. An Admin shall be able to remove an Organization Lead from an Organization.
- 83. An Admin shall be able to invite an Organization Member to an Organization.
- 84. An Admin shall be able to remove an Organization Member from an Organization.
- 85. An Admin shall be able to navigate to an Organization's page.
- 86. An Admin shall be able to navigate between supportive pages.
- 87. An Admin shall be able to view an Organization Page.
- 88. An Admin shall be able to delete an Individual User's Account.
- 89. An Admin shall be able to delete an Organization Member's Account.
- 90. An Admin shall be able to delete an Organization Lead's Account.
- 91. An Admin shall be able to delete an Organization.
- 92. An Admin shall be able to approve an Organization.

vii. Document

- 93. A Document shall be owned by an Individual User.
- 94. A Document shall be able to have its title modified.
- 95. A Document shall be able to be uploaded by an Individual User.
- 96. A Document shall be able to be downloaded by an Individual User.
- 97. A Document shall be able to be downloaded by an Organization Member.
- 98. A Document shall be able to be downloaded by an Organization Lead.
- 99. A Document shall be able to be removed from the website by its owner.

viii. Package

- 100. A Package shall be able to have its title modified.
- 101. A Package shall be able to contain Documents.
- 102. A Package shall be able to contain Comments.
- 103. A Package shall be submitted by an Individual User.
- 104. A Package shall be able to be viewed by an Individual User.
- 105. A Package shall be able to be viewed by an Organization Member upon submission.
- 106. A Package shall be able to be viewed by an Organization Leader upon submission.
- 107. A Package shall be able to be created by an Individual User.
- 108. A Package shall be able to be downloaded by an Individual User.
- 109. A Package shall be able to be downloaded by an Organization Member upon submission.
- 110. A Package shall be able to be downloaded by an Organization Leader upon submission.

ix. Application Requirement Package

- 111. An Application Requirement Package shall be able to be created by an Organization Lead.
- 112. An Application Requirement Package shall be able to be modified by an Organization Lead.
- 113. An Application Requirement Package shall contain many Application Requirements.
- 114. An Application Requirement Package shall be able to have their list of Application Requirements displayed.
- 115. An Application Requirement Package shall be viewed by an Individual User after taking the quiz.

x. Application Requirement

- 116. An Application Requirement shall be able to be created by an Organization Lead.
- 117. An Application Requirement shall be able to be modified by an Organization Lead.
- 118. An Application Requirement shall be able to be deleted by an Organization Lead.
- 119. An Application Requirement shall be able to be viewed by an Individual User.
- 120. An Application Requirement shall be able to be viewed by an Organization Member.
- 121. An Application Requirement shall be able to be compared to a submitted Document to check that it satisfies the requirement.

xi. Comments

- 122. Comments shall be given by Organization Members to Individual Users' submitted Packages.
- 123. Comments shall be given by Organization Lead to Individual Users' submitted Packages.

xii. Quiz

- 124. Quiz shall contain many questions.
- 125. Quiz shall be able to be taken by Unregistered Users.
- 126. Quiz shall be able to be taken by Individual Users.
- 127. Quiz shall be able to be taken as many times desired.
- 128. Quiz shall display results.
- 129. Quiz shall show Application Requirement Package according to certain organizations.
- 130. Quiz shall let the user know what organizations match their intentions.
- 131. Quiz shall be able to be skipped by an Unregistered User.
- 132. Quiz shall be able to be skipped by a Registered User.

xiii. Question

- 133. Question shall denote the type of search done for the choices to the next Question.
- 134. Question after shall depend on the previous question answered by the User except the first Question on a Quiz.
- 135. Question shall be displayed in a Quiz.
- 136. Question shall be viewed by Unregistered User.
- 137. Question shall be viewed by Individual User.
- 138. Question shall be answered by Unregistered User.
- 139. Question shall be answered by Individual User.
- 140. Question shall be created by Admin
- 141. Question shall be modified by Admin.

xiv. Device

- 142. Device shall be able to connect to the Website.
- 143. Device shall be logged in by the User.

xv. Account

- 144. Account shall be created by a user.
- 145. Account shall require one time fee payment if created by an Individual User.
- 146. Account shall require a monthly fee for organization account.
- 147. Account shall have access to different functionalities depending on the Account Type.
- 148. Account shall be able to be disabled by Admin.

xvi. Password

- 149. Password shall allow a user to login to their account.
- 150. Password shall be able to display the date last changed.
- 151. Password shall be able to be changed.

xvii. Organization Page

- 152. Organization Page shall be able to be modified by Organization Lead.
- 153. Organization Page shall be able to be viewed by Organization Members.
- 154. Organization Page shall be able to be viewed by Organization Lead.
- 155. Organization Page shall be able to be viewed by an Individual User.
- 156. Organization Page shall show the Organization's Contact Information.
- 157. Organization Page shall show a list of Organization's members.
- 158. Organization Page shall show the Organization's Organization Package List.
- 159. Organization Page shall be able to be viewed by an Admin.

xviii. Profile

- 160. Profile shall include a username/real name.
- 161. Profile shall include a Bio by Organization Lead.
- 162. Profile shall include a Bio by Organization Members.
- 163. Profile shall include Bio by Individual User.
- 164. Profile shall have a profile picture uploaded by Individual Users.
- 165. Profile shall have a profile picture uploaded by Organization Lead.
- 166. Profile shall have a profile picture uploaded by Organization Members.
- 167. Profile shall not include Contact Information by Individual Users.
- 168. Profile shall include Contact Information by Organization Lead.
- 169. Profile shall include Contact Information by Organization Members.
- 170. Profile shall show public information to other users.

Priority 2

i . Unregistered User

1. Unregistered users shall be able to sign up to the newsletter.

ii . Individual User

2. Individual users shall be able to add a reminder to a Package.
3. Individual users shall be able to see the preview of a Document.
4. Individual users shall be able to comment on their own Documents.
5. Individual users shall be able to sort Packages by filters.
6. Individual users shall be able to send messages to the Organization Members.
7. Individual users shall be able to disable account.

iii. Organization Lead

8. Organization Lead shall be able to report malicious document submission.
9. An Organization Lead shall be able to preview Documents inside of a submitted Package.
10. An Organization Lead shall be able to sort submitted Packages.
11. An Organization Lead shall be able to send a message to an Individual user.
12. An Organization Lead shall be able to disable account.

i v . Organization Member

13. Organization members shall be able to disable account.
14. Organization members shall be able to report malicious document submission.
15. Organization members shall be able to preview documents in Packages.
16. Organization members shall be able to sort submitted Packages.

17. Organization members shall be able to send a message to an Individual User.

v. Admin

18. An Admin shall be able to search for submitted Packages to any Organization
19. An Admin shall be able to sort submitted Packages.
20. An Admin shall be able to see the Packages for an Individual User.
21. An Admin shall be able to remove Packages for an Individual User.
22. An Admin shall be able to remove Documents from Packages for an Individual User.
23. An Admin shall be able to download any Package to the device.
24. An Admin shall be able to download any Document to the device.
25. An Admin shall be able to modify Application Requirement Packages.
26. An Admin shall be able to delete Application Requirement Packages.
27. An Admin shall be able to view a Chat List for an Individual User.
28. An Admin shall be able to view a Chat for an Individual User.
29. An Admin shall be able to view messages for an Individual User.
30. An Admin shall be able to modify an Organization Page.
31. An Admin shall be able to modify an Individual User's Profile Picture.
32. An Admin shall be able to view an Individual User's Profile Picture.
33. An Admin shall be able to delete an Individual User's Profile Picture.
34. An Admin shall be able to modify an Individual User's Bio.
35. An Admin shall be able to view an Individual User's Bio.
36. An Admin shall be able to delete an Individual User's Bio.
37. An Admin shall be able to disable an Individual User's Account.

- 38. An Admin shall be able to disable an Organization Member's Account.
- 39. An Admin shall be able to disable an Organization Lead's Account.
- 40. An Admin shall be able to disable an Organization.

vi. Document

- 41. A Document shall be able to be previewed by an Admin.
- 42. A Document shall be able to be previewed by an Individual User.
- 43. A Document shall be able to be previewed by an Organization Lead.
- 44. A Document shall be able to be previewed by an Organizational Member.
- 45. A Document of an Individual User shall be able to be downloaded by an Admin.

vii. Package

- 46. A Package shall be able to contain many Reminders.
- 47. A Package of an Individual User shall be able to be viewed by an Admin.
- 48. A Package of an Individual User shall be able to be downloaded by an Admin.

viii. Chat

- 49. A Chat shall be viewed by an Individual User.
- 50. A Chat shall be viewed by an Organization Member.
- 51. A Chat shall be viewed by an Organization Lead.
- 52. A Chat List shall be previewed by an Individual User.
- 53. A Chat List shall be previewed by an Organization Member.
- 54. A Chat List shall be previewed by an Organization Lead.
- 55. A Chat shall be created by an Individual User with an Organization Member.
- 56. A Chat shall be created by an Individual User with an Organization Lead.

- 57. A Chat shall contain texts.
- 58. A Chat shall be able to be removed by Individual User.
- 59. A Chat shall be able to be removed by Organization Members.
- 60. A Chat shall be able to be removed by Organization Lead.
- 61. A Chat shall be viewed by an Admin.
- 62. A Chat shall be created by an Individual User with an Admin.
- 63. A Chat shall be able to be removed by Admin.

ix. Chat List

- 64. A Chat List shall be viewed by an Individual User.
- 65. A Chat List shall be viewed by an Organization Member.
- 66. A Chat List shall be viewed by an Organization Lead.
- 67. A Chat List shall be previewed by an Individual User.
- 68. A Chat List shall be previewed by an Organization Member.
- 69. A Chat List shall be previewed by an Organization Lead.
- 70. A Chat List shall contain Chats.
- 71. A Chat List shall allow the user to view an individual Chat.
- 72. A Chat List shall be sorted by most recent conversations first.
- 73. A Chat List shall be viewed by an Admin.

x. Chat Message

- 74. A message shall be able to be sent by an Individual User to an Organization Member.
- 75. A message shall be able to be sent by an Individual User to an Organization Lead.
- 76. A message shall be able to be sent by Organization Lead to an Individual User.

- 77. A message shall be able to be sent by Organization Members to an Individual User.
- 78. A message shall contain a timestamp of when the message was created.
- 79. A message shall be able to be sent by an Admin to an Individual User.
- 80. A message shall be able to be sent by an Admin to an Organization Member.
- 81. A message shall be able to be sent by an Admin to an Organization Lead.
- 82. A message shall be able to be sent by an Individual User to an Admin.
- 83. A message shall be able to be sent by an Organization Lead to an Admin.
- 84. A message shall be able to be sent by an Organization Member to an Admin.

xi. Comments

- 85. Comments shall be given by Individual User on their own Documents.
- 86. Comments shall be removed by its owner.
- 87. Comments on an submitted Package shall be removed by the Package's owner.

xii. Reminders

- 88. A Reminder shall have a title.
- 89. A Reminder shall have a due date.
- 90. A Reminder shall be created by an Individual User.
- 91. A Reminder shall be able to be linked to a Package.

xiii. Profile

- 92. Profile shall be able to have its Profile Picture modified by Admin.
- 93. Profile shall be able to have its Profile Picture viewed by Admin.
- 94. Profile shall be able to have its Profile Picture deleted by Admin.
- 95. Profile shall be able to have its Bio modified by Admin.

- 96. Profile shall be able to have its Bio viewed by Admin.
- 97. Profile shall be able to have its Bio deleted by Admin.

xiv. Newsletter

- 98. Newsletter shall be manually enabled for Individual User.
- 99. Newsletter shall be signed up using email by Unregistered User.
- 100. Newsletter shall notify User with any updates in the website via email.
- 101. Newsletter shall be viewed by Individual User.
- 102. Newsletter shall be viewed by Unregistered User.
- 103. Newsletter shall be created by an Admin.
- 104. Newsletter shall be modified by an Admin.
- 105. Newsletter shall be deleted by an Admin.

xv. Organization Page

- 106. Organization Page shall be able to be modified by Admin.
- 107. Organization Page shall be able to be viewed by an Admin.
- 108. Organization Page shall be able to be deleted by an Admin.

xvi. Application Requirement

- 109. An Application Requirement shall be modified by Admin.
- 110. An Application Requirement shall be viewed by Admin.
- 111. An Application Requirement shall be deleted by Admin.

xvii. Application Requirement Package

- 112. An Application Requirement Package shall be able to be modified by an Admin.
- 113. An Application Requirement Package shall be able to be viewed by an Admin.

114. An Application Requirement Package shall be able to be deleted by an Admin.

Priority 3

i . Unregistered User

1. Unregistered users shall be able to translate the website.

ii . Individual User

2. Individual users shall be able to translate the website.
3. Individual users shall be able to translate names of Documents.

iii. Organization Lead

4. An Organization Lead shall be able to translate the website.

i v . Organization Member

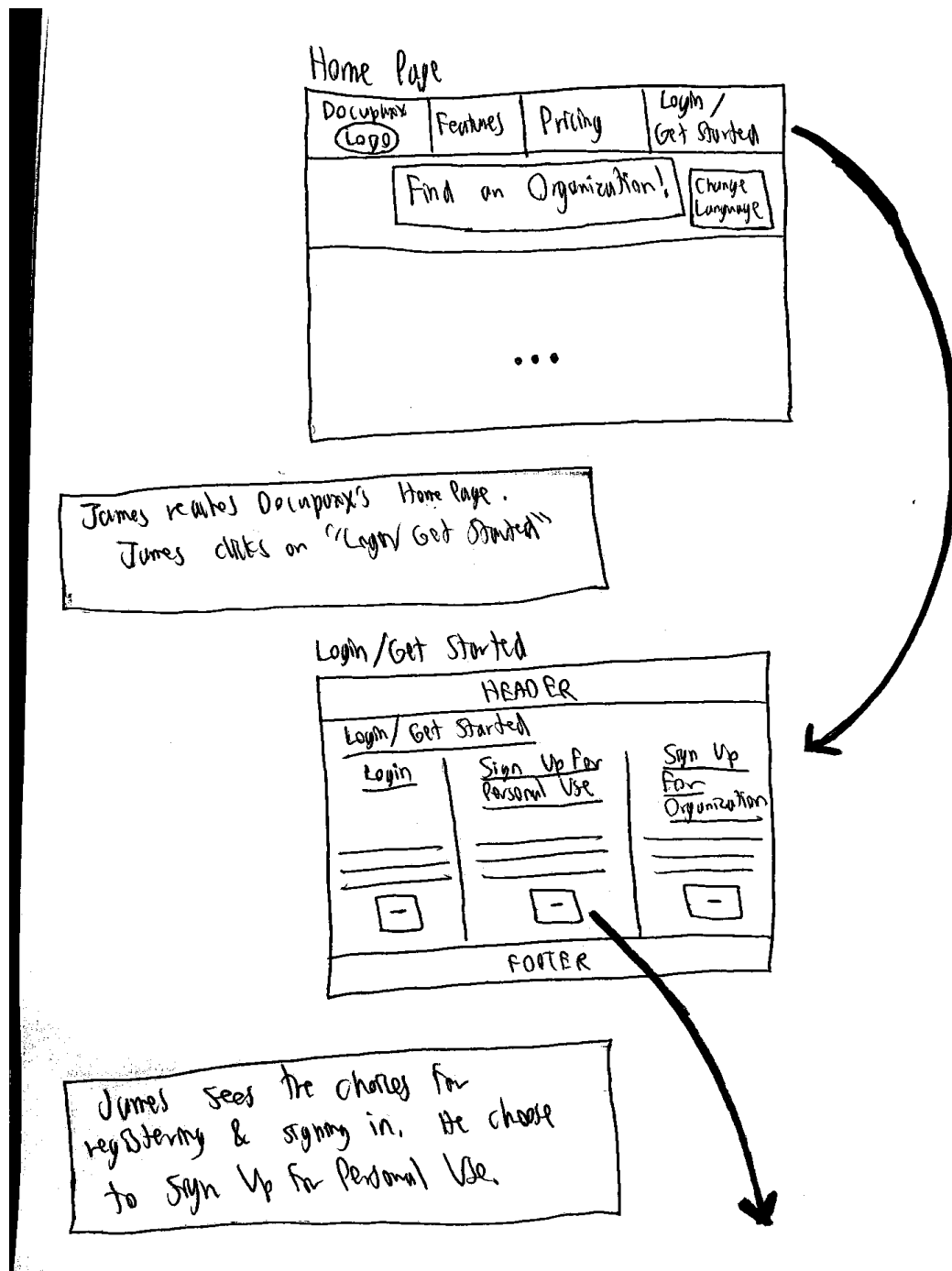
5. Organization members shall be able to translate the website.

v. Admin

6. An Admin shall be able to translate the website.

3. UI Mockups and Storyboards (high level only)

Use Case #1 (Application Requirements):



Sign Up For Personal Use

HEADER

Start Using DocuSign by Registering!

(Logo)

Username

...

☐ Terms of Services

Submit

FOOTER

James enters no information, checks the terms of service, & clicks "Submit".

Sign In

HEADER

Start Using DocuSign by Logging In!

(Logo)

Username

Password

[Forgot Your Password](#)

Login

FOOTER

After signing up James is directed to the Login Page. He enters his credentials to login.

Home Page (Signed In)

| | | | |
|----------------------|--------------|-----------------|-------------------|
| DocuPass Logo | My Dashboard | My Profile | James Sign Out |
| Find an Organization | | Change Language | |
| ... | | | |

James is at the Home Page of a Signed-In Individual User. He wants to apply to SFSU so he decides to Find an Organization.

Quiz Prompt Page

| | |
|----------------------------|-----------|
| HEADER | |
| Find an Organization | |
| Take a Quiz Now! | |
| Search for an Organization | Skip Quiz |
| FOOTER | |

James is taken to a Quiz Prompt Page. He reads into about the Quiz that will help him find an Organization & takes the Quiz.

HEADER

Quiz

Question 1: ==

| |
|----------------------|
| Un |
| United Arab Emirates |
| United Kingdom |
| United States |

Next

FOOTER

James takes a Quiz and is faced with a series of questions, including Quiz Page) with a dropdown search Bar.

More Quiz Pages

HEADER

Quiz

Question 3: ==

Choice 1

Choice 2

Choice 3

Next

FOOTER

For questions with a small number of choices, James is faced with a Multiple Choice Question.

HEADER

Quiz

Question 4: ==

...

Get results

FOOTER

The last question James faces will prompt to show the Quiz Results. If James was Unauthorized he would have to Sign-In at this point.

HEADER

San Francisco State University

Transfer Student Application:

- o Required Document 1
- o Required Document 2
- o Required Document 3

Description:

FOOTER

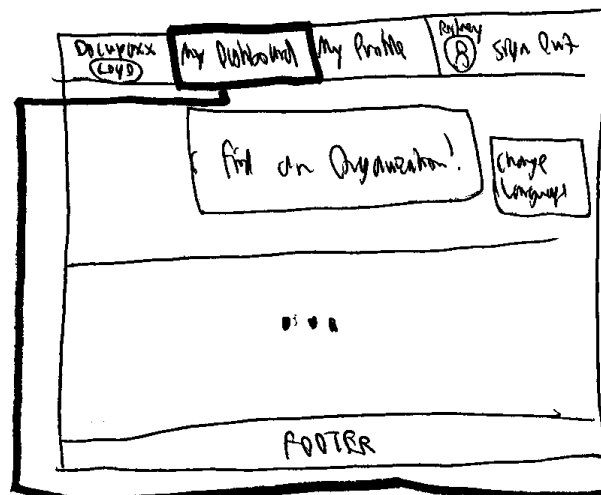
Upload Documents Here for Review

Submission

directed

Finally after taking the Quiz, James is ~~directed~~ straight to the application that applies to him. He can see the required documents to go to SF State.

Use Case #2: Storage of Documents



Rodney has signed up as a Personal Use user (Individual User) and wants to go to his Dashboard for organizing files.



HEADER

My Dashboard

My Packages

My Documents

My Applications

My App'd Organizations

My Chats

My Feedback

My Packages

Search My Packages

No Packages Yet!

+ New Package

FOOTER

Rodney has gone through the process of sign-up for Personal Use. Rodney is on his Dashboard and wants to store files. He clicks 'New Package' to create a package of documents.

HEADER

New Package

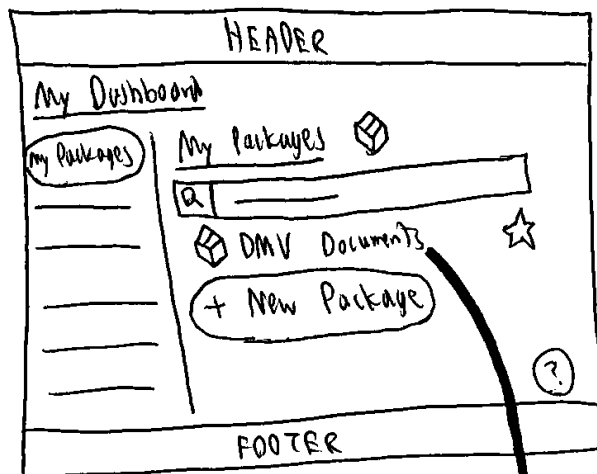
Name:

Back to Dashboard

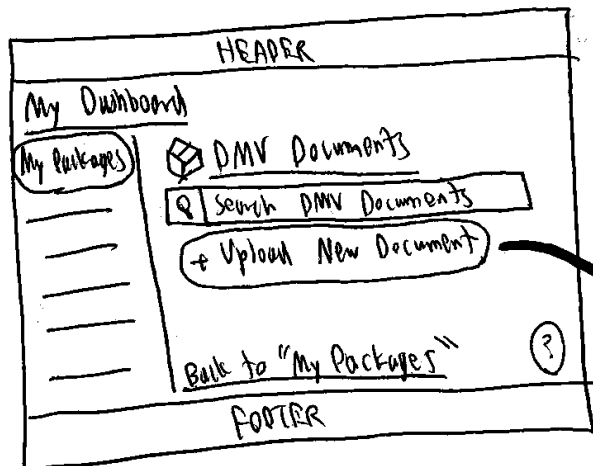
Create Package!

FOOTER

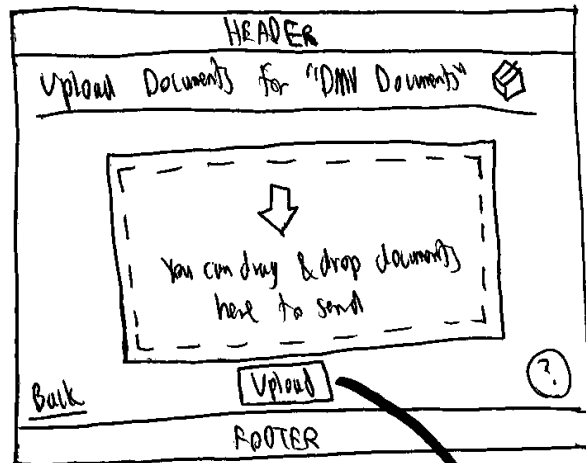
Rodney is prompted to enter a package name. He enters "My Documents" and clicks "Create Package".



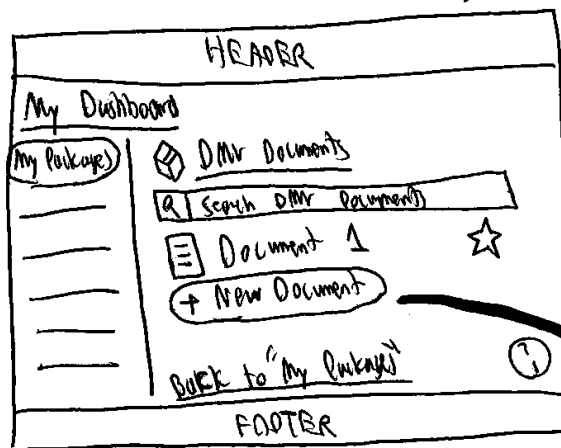
Rodney has now created a new package which can hold documents. He clicks the "DMV Documents" package to put documents in it.



~~Rodney is prompted to upload a~~
 Rodney sees he doesn't list any "DMV Documents". There are no files, so he uploads one.

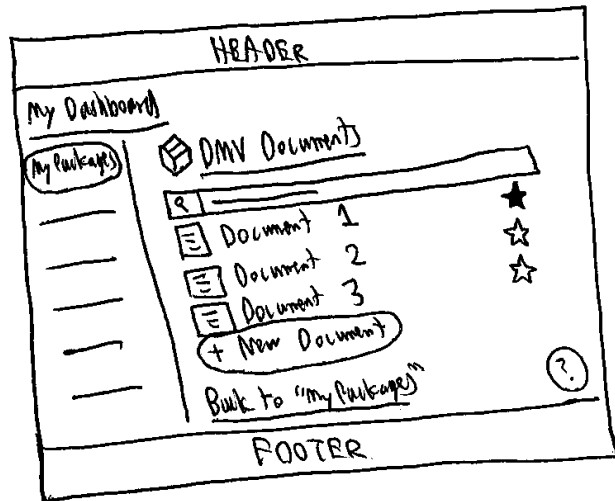


Rodney is prompted to upload a document to the package. He drags & drops a document into the box & clicks "upload".



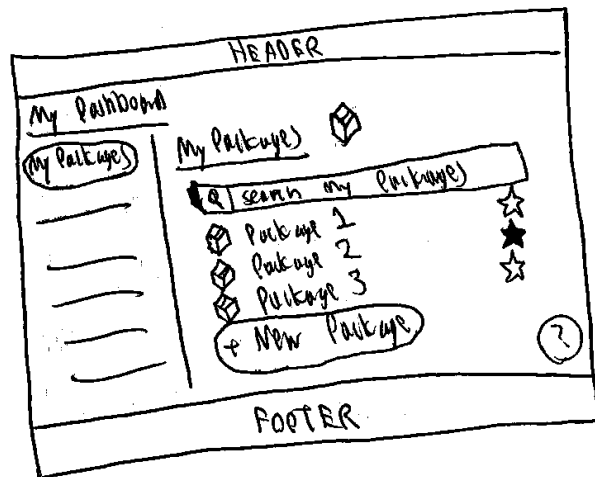
uploaded
Rodney has ~~uploaded~~ a document but he can organize it in the "DMV Documents" package.

Rodney uploads multiple documents



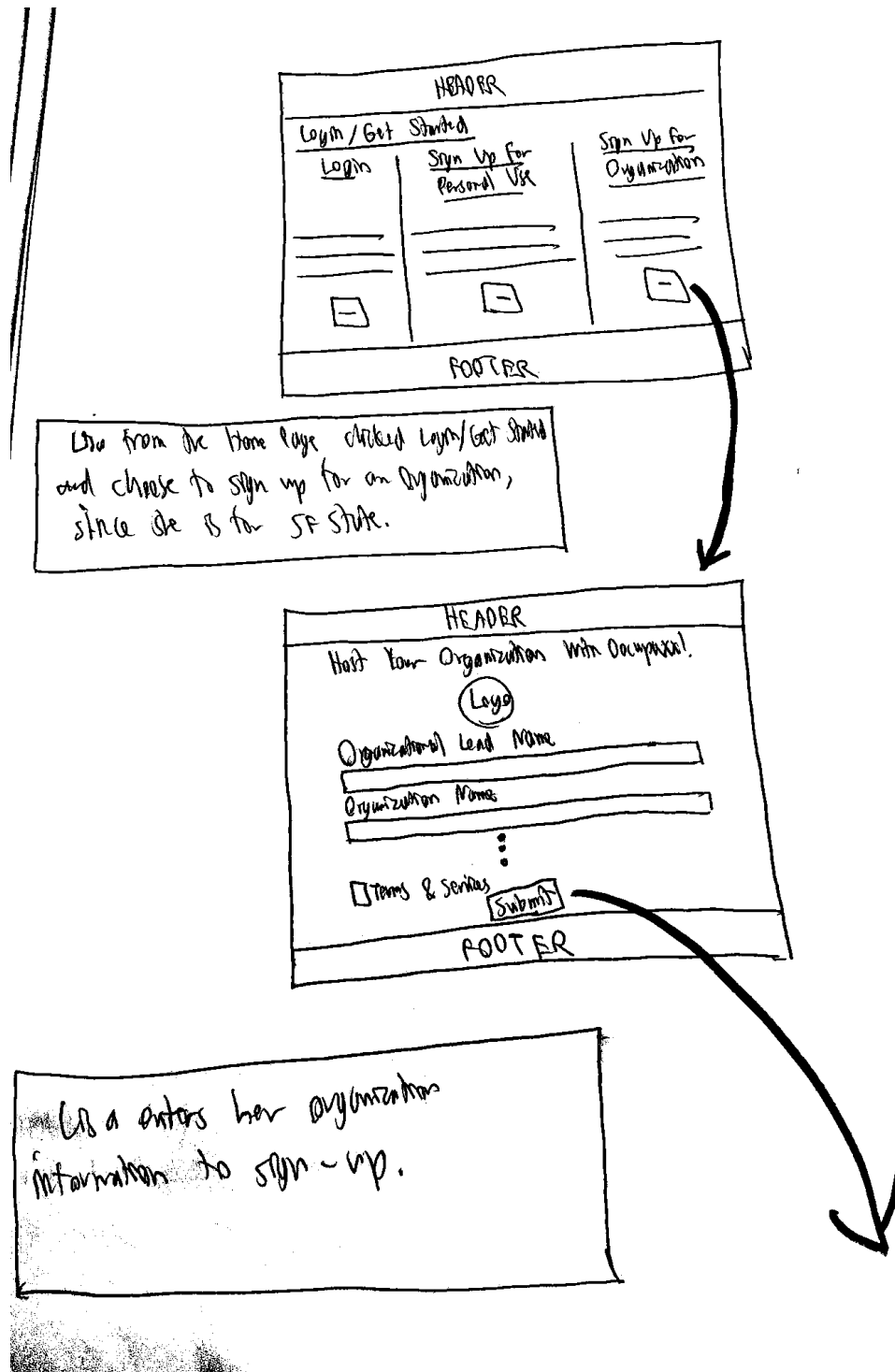
Rodney has used the Upload feature to upload multiple documents. He can now categorize these as ~~from~~ be DMV.

Makes more packages



Rodney has created new packages of documents. Now he can organize his files well.

Use Case #3 (Modifying Application Requirements):



Contact Us for Approval

Name

Org Name

Email

Description

Submit

?

User enters her information & the information of the Organization and submits it for contact.

User waits & gets approval from Site Admins

My Dashboard

Application Requirement Packages

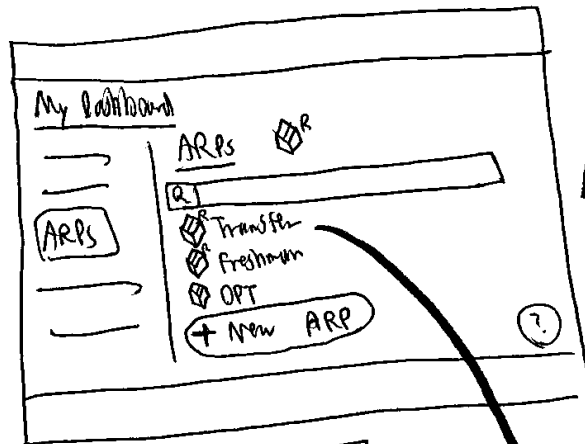
Application Requirement Packages

No Application Requirement Packages Yet!

+ New Application Requirements Package

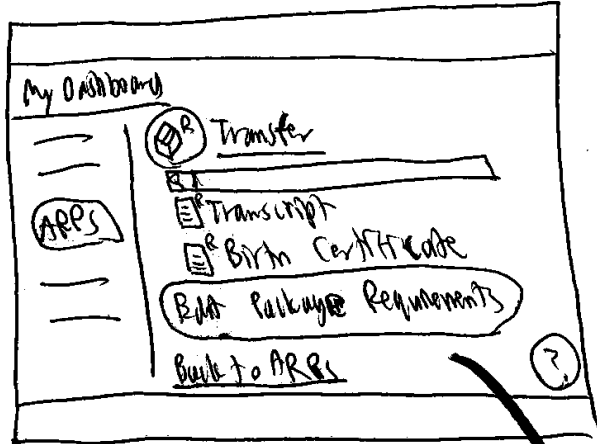
?

After receiving approval, User can look at Application Requirement Packages (ARPs) to make a new requirement package.




Makes more
request packages

Lisa has been able to make several
packages. But she wants to delete Transcript
from the Transfer Package, as it is not
required.



Lisa sees a lot of required
documents. She clicks to Edit
the Requirement Package to edit the fields

HEADER

New Application Requirements Package 


Name


Description

Required Documents

☒

☒

+ New Required Document Field [Link to Dashboard](#) 


Create Application Requirement Package! 


FOOTER


LSA is prompted to enter information about the Application Requirement Package. She enters information about a Transfer Student Package and clicks **Create!**

HEADER

My Dashboard

Application Requirements Packages 

 Transfer

+ New Application Req. Pkg. 

FOOTER

LSA has successfully created an Application Requirement Package for Transfer Student's Applications.

Modify Application Package Requirements

Name _____

Description _____

Required Documents

☒ Transcript

☒ Birth Certificate

[Back to Dashboard](#)

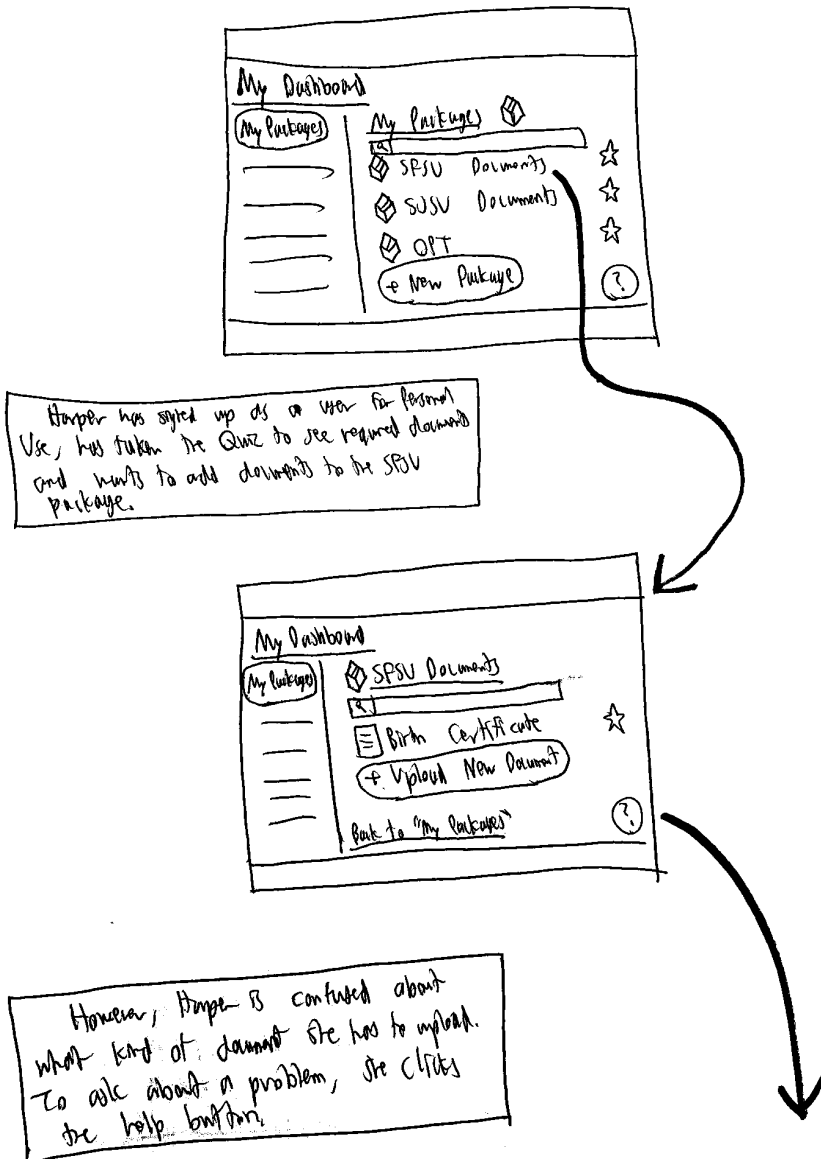
ESU can modify the requirement package here. LSA deletes Transcript ~~by clicking the "X" button~~ and clicks 'Save'.

My Dashboard

ARs

LSA has successfully changed the requirements of the Transfer Package.

Use Case #4 (Realtime Chat):



Help Chat

| <u>Customer Service</u> | <u>Help from an Organization</u> |
|----------------------------------|----------------------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| <input type="button" value="—"/> | <input type="button" value="—"/> |

Harper was prompted to choose whether she needed help from an Organization or Document itself. Harper needed help with a request document so she chose Organization's help.

Help from an Organization

| |
|--------------------------------|
| San |
| San Francisco State University |
| San Jose State University |
| ... |

Harper typed the Organization's name and wrote her note with the request document.

Chat Waiting Queue

There are 3 people
in front of you
...

Back

Hampen was put in a Waiting Queue
to speak with an SP State Representative.

Auto Redirect

Live Chat

(A) _____ (H)

(A) _____ (H)

Thank you! (H)

SEND End Chat

Eventually Hampen was able to speak
with Andrew, an SPSU representative, via live
chat. Hampen was clarified on what to
do with the requested doc.

Use Case #5 (Feedback on Applications):

HEADER - ALVARO | Sign Out

San Francisco State University

Transfer

Upload Documents for Review/Submission

Description

FOOTER

Alvaro has rented the Transfer Application Requirement Package & wants to upload his Transcript as a supporting document but wants to review it. He Uploads it for Review.

HEADER - ALVARO | ALVARO Sign Out

Upload Documents for Review/Submission

To: SPSU

Subject:

You can drag & drop files...

OR

Choose from "My Documents"

SEND

Footer

Alvaro has signed up as a Personal User (Individual User) and has taken the QUIZ and clicks to Upload Doc for review. He sends a document(s) for review with a subject.

File Sent

Perspective Change to Martina

HEADER - MARTINA | MARTINA Sign Out

My Dashboard

Submitted Packages

Submitted Packages

Alvaro: Alvaro Transcript NEW

Martina, a part of SPSU's Occupancy Team, sees Alvaro's transcript. She clicks on it to review the document.



HEADER

Reg Alvaro's Transcript

| Alvaro's Transcript | A | B |
|---------------------|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

FROM: SFSU Dropout Team

You are missing a core GE course.

Send New Document!

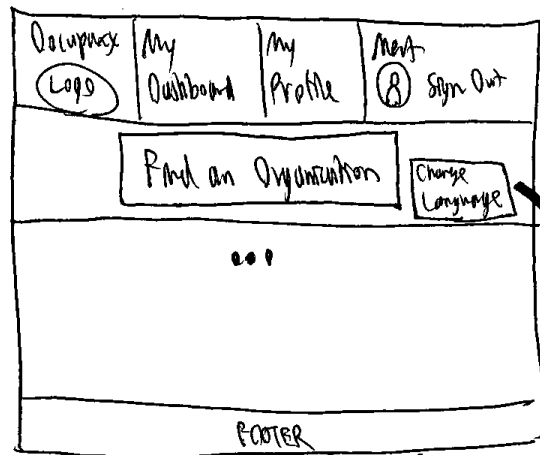
Back

FOOTER

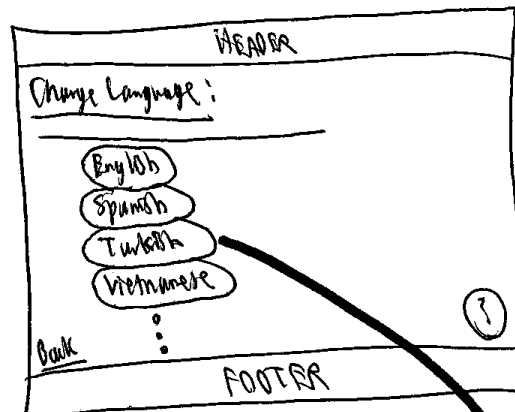
?

After reading the feedback Alvaro realizes he sent the wrong document and clicks Send New Document to send the right one.

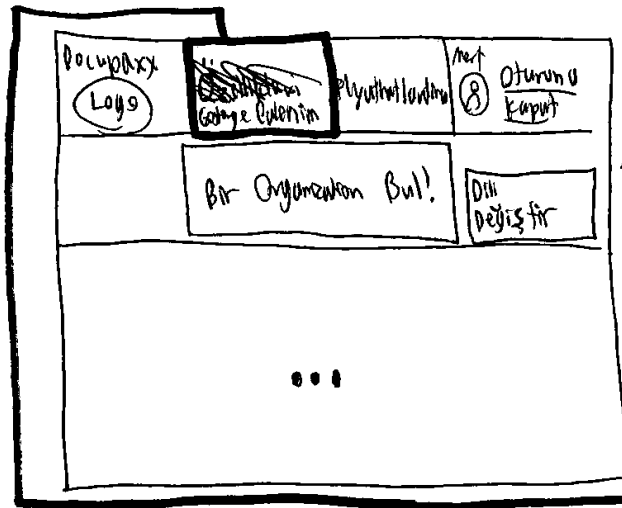
Use Case #6 (Translation):



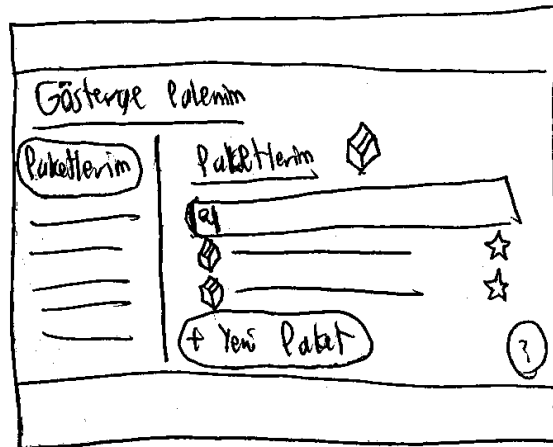
Mert has signed up into Ocunpxox and is on the Home Page. He clicks on "Change Language" to change the translation on the website.



Mert is prompted to a page so that he can change the language to Turkish by clicking "Turkish".



The home page is now translated in Turkish. Now Mert can navigate to the "My Dashboard" tab to upload his required documents.



After clicking on "My Dashboard", Mert is able to effectively show documents with all the interfaces being translated to Turkish.

4. High level database architecture and organization

I - DB Organization

Quiz

1. Quiz shall contain many Questions.
2. Quiz shall be taken by many Individual Users.
3. Quiz shall have one unique id.
4. Quiz shall have one description.

Question

1. A Question shall have one unique id.
2. A Question shall have one answer type.
3. A Question shall have one parent url key identifier.
4. A Question shall have one parent table identifier.
5. A Question shall have one current table identifier.
6. A Question shall have one current field identifier.
7. A Question shall have one current url key identifier.
8. A Question shall belong to only one quiz.
9. A Question shall have many Foreign Referencing Questions.
10. A Question shall have many Self Referencing Questions.

Foreign Referencing Question

1. A Foreign Referencing Question is a Question
2. A Foreign Referencing Question shall have one unique id.
3. A Foreign Referencing Question shall have one referencing field identifier
4. A Foreign Referencing Question shall have one referenced field identifier

Self Referencing Question

1. A Self Referencing Question is a Question
2. A Self Referencing Question shall have a unique id.

User

1. A User shall have one unique id.
2. A User shall have one username.
3. A User shall have one email.
4. A User shall have one password.
5. A User shall have one is_enabled flag.
6. A User shall have one image.
7. A User shall have one thumbnail.
8. A User shall be able to visit many Organizations.

Admin

9. An Admin is a user
10. An Admin shall have a unique id.
11. An Admin shall have a user id.
12. An Admin shall be able to manage many quizzes
13. An Admin shall be able to approve many organizations
14. An Admin shall be able to delete many users

Individual User

15. An Individual Users shall have a unique id.
16. An Individual Users shall have a user id.
17. An Individual User shall take many quizzes.
18. An Individual User shall skip many quizzes.

19. An Individual User shall create many packages.
20. An Individual User shall create many documents in a package.
21. An Individual User shall send packages to an Organization.
22. An Individual User shall visit many Organization pages

Organization Lead

23. An Organization Lead shall have a unique id.
24. An Organization Lead shall belong to only one Organization
25. An Organization Lead shall approve many Organization Members
26. An Organization Lead shall view many Sent Packages
27. An Organization Lead shall download many Sent Packages
28. An Organization Lead shall view many Sent Documents
29. An Organization Lead shall download many Sent Documents

Organization Member

30. An Organization Member shall have one unique id.
31. An Organization Member shall belong to only one Organization.
32. An Organization Member shall view many Sent Packages
33. An Organization Member shall download many Sent Packages
34. An Organization Member shall view many Sent Documents
35. An Organization Member shall download many Sent Documents

Application Requirement Package

1. An Application Requirement Package shall have one unique id.

2. An Application Requirement Package shall have one name.
3. An Application Requirement Package shall have one description.
4. An Application Requirement Package shall be viewed by many Individual Users.
5. An Application Requirement Package shall belong to many Organizations.
6. An Application Requirement Package shall contain many Application Requirements.

Application Requirement

1. An Application Requirement shall have one unique id.
2. An Application Requirement shall have one name.
3. An Application Requirement shall have one description.
4. An Application Requirement shall belong to only one Application Requirement Package.
5. An Application Requirement shall be viewed by many Individual Users.

Organization

1. An Organization shall have one unique id.
2. An Organization shall have one name.
3. An Organization shall have one image.
4. An Organization shall have one thumbnail.
5. An Organization shall have one is_approved flag for approval from Docupaxx.
6. An Organization shall have one description.
7. An Organization shall have one date last modified.
8. An Organization shall have many Application Requirement Packages.
9. An Organization shall have one Address.
10. An Organization shall be visited by many Individual Users

11. An Organization may or may not be a School
12. An Organization may or may not be a Bank
13. An Organization may or may not be an Insurance
14. An Organization may or may not be an Other Organization.

School

1. A School is an Organization
2. A School shall have a unique id.

Bank

1. A Bank is an Organization
2. A Bank shall have a unique id.

Government

1. A Government is an Organization
2. A Government shall have a unique id.

Insurance

1. An Insurance is an Organization
2. An Insurance shall have one unique id.

Other Organization

1. An Other Organization is an Organization
2. An Other Organization shall have one unique id.
3. An Other Organization shall have a type.

Address

1. An Address shall have one unique id.

2. An Address shall have one street.
3. An Address shall have one city.
4. An Address shall have one state.
5. An Address shall have one zip code.
6. An Address shall have one country.
7. An Address shall belong to one Organization

Package

1. A Package shall have one unique id.
2. A Package shall have one name.
3. A Package shall have one description.
4. A Package shall be created by one Individual User.
5. A Package shall be viewed by only one Individual User.
6. A Package shall be downloaded by one Individual User.
7. A Package shall contain many Documents.

Document

1. A Document shall have a unique id.
2. A Document shall have one name.
3. A Document shall have one description.
4. A Document shall have one url.
5. A Document shall belong to only one Package.
6. A Document shall be created by only one Individual User.
7. A Document shall be viewed by one one Individual User.

8. A Document shall be downloaded by one Individual User.

Sent Package

1. A Sent Package shall have one unique id.
2. A Sent Package shall have one name.
3. A Sent Package shall have one description.
4. A Sent Package shall have one is_archived flag
5. A Sent Package shall have many SentDocuments.
6. A Sent Package shall be sent by one Individual User.
7. A Sent Package shall be sent to one Organization.
8. A Sent Package shall be viewed by one Organization Lead.
9. A Sent Package shall be viewed by many Organization Members.
10. A Sent Package shall be downloaded by one Organization Lead.
11. A Sent Package shall be downloaded by many Organization Members.

Sent Document

1. A Sent Document shall have one unique id.
2. A Sent Document shall have one name.
3. A Sent Document shall have one description.
4. A Sent Document shall have one url.
5. A Sent Document shall belong to only one SentPackage.
6. A Sent Document shall be viewed by one Organization Lead
7. A Sent Document shall be viewed by many Organization Members
8. A Sent Document shall be downloaded by one Organization Lead.

9. A Sent Document shall be downloaded by many Organization Members.

Entities

1. Quiz (Strong)

- Quiz_id: key, alphanumeric
- Quiz_description: alphanumeric

2. Questions(Weak)

- Question_id: key, alphanumeric
- Quiz_id: weak key, alphanumeric
- Question_answerType: alphanumeric
- Question_parentUrlKey : alphanumeric
- Question_parentTable : alphanumeric
- Question_currentTable : alphanumeric
- Question_currentField : alphanumeric
- Question_currentUrlKey : alphanumeric
- Question_lastchanged : timestamp

3. ForeignRefQuestion (Weak)

- foreignRef_id : key, alphanumeric
- Question_id : weak key, alphanumeric
- ReferencingField : alphanumeric
- ReferencedField : alphanumeric

4. SelfRefQuestion (Weak)

- selfRef_id : key, alphanumeric
- Question_id : weak key, alphanumeric

5. User (Strong)

- Username : key, alphanumeric
- Email : key, alphanumeric
- Password : alphanumeric
- Thumbnail : alphanumeric
- Image : alphanumeric
- isEnabled : boolean

6. Individual User (Weak)

- IndividualUser_id: key, alphanumeric
- User_id: weak key, alphanumeric

7. Application Requirement Package(ARP) (Weak)

- ARP_id: key, alphanumeric
- ARP_name: alphanumeric
- ARP_description: alphanumeric

8. Application Requirement (AR) (Weak)

- AR_id: key, alphanumeric
- ARP_id : weak key, alphanumeric
- AR_name: alphanumeric
- AR_description: alphanumeric

9. Organization (Strong)

- Orgnization_id: key, alphanumeric
- Org_name: alphanumeric

- Organization_image: alphanumeric
- Organization_thumbnail: alphanumeric
- Organization_is_approved: boolean
- Organization_description: alphanumeric
- Organization_last_changed: timestamp

10. School (Weak)

- School_id : key, alphanumeric
- Org_id : weak key, alphanumeric

11. Bank (Weak)

- Bank_id : key, alphanumeric
- Org_id : weak key, alphanumeric

12. Government (Weak)

- Gov_id : key, alphanumeric
- Org_id : weak key, alphanumeric

13. Insurance (Weak)

- Insurance_id : key, alphanumeric
- Org_id : weak key, alphanumeric

14. otherOrganization (Weak)

- Other_id : key, alphanumeric
- Org_id : weak key, alphanumeric
- Type : key, numeric

15. Address (Strong)

- address_id : key, alphanumeric
- Street: alphanumeric
- City: alphanumeric
- State: alphanumeric
- Country: alphanumeric
- Zip: numeric

16. Package (Weak)

- Package_id : key, alphanumeric
- User_id : weak key, alphanumeric
- Name : alphanumeric
- Description : alphanumeric

17. Document (Weak)

- Document_id : key, alphanumeric
- Package_id : weak key, alphanumeric
- Name : alphanumeric
- Description : alphanumeric
- Url : alphanumeric

18. SentPackage (Strong)

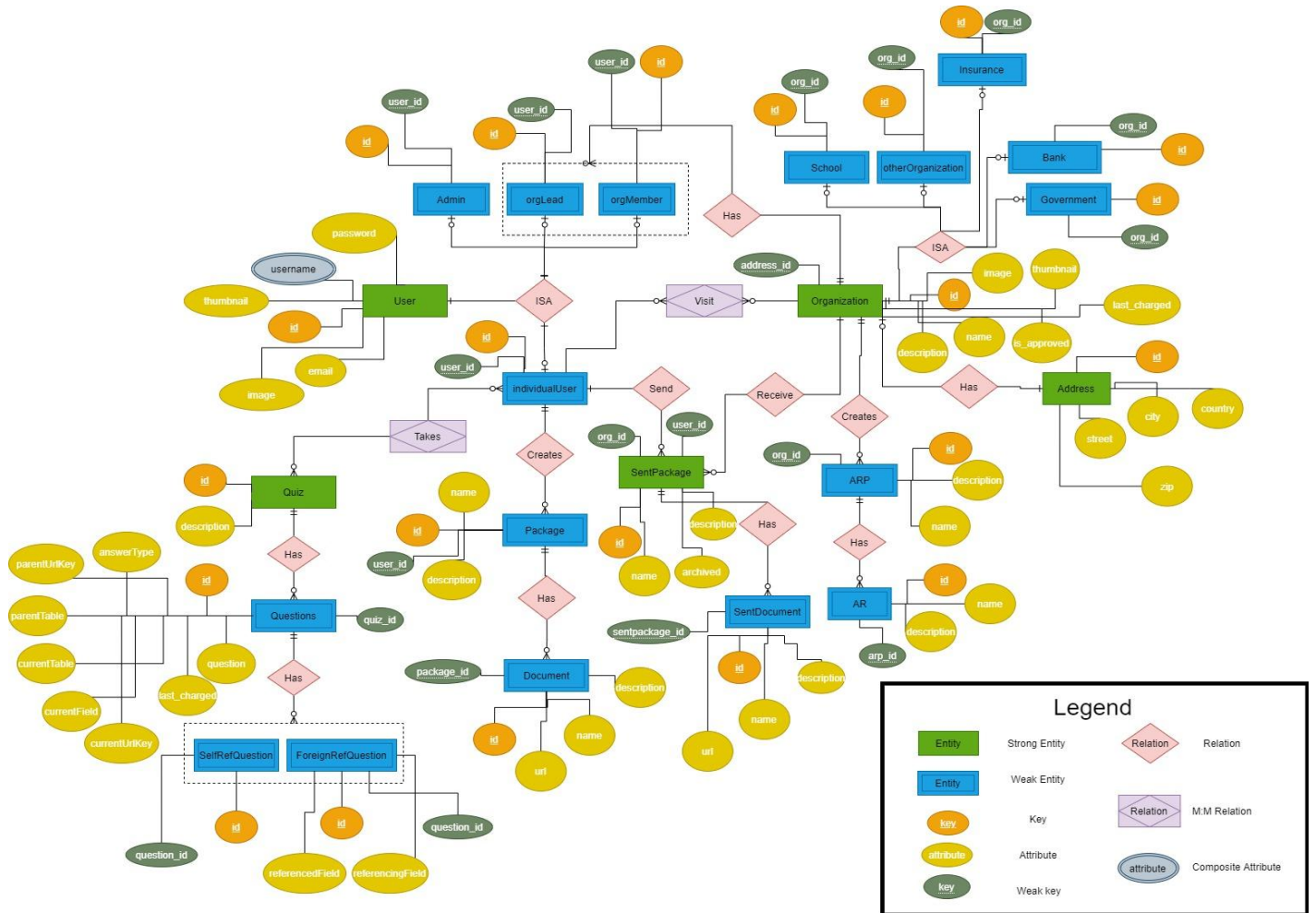
- sentPack_id : key, alphanumeric
- Package_id : weak key, alphanumeric
- Org_id : weak key, numeric
- Name : alphanumeric

- Description : alphanumeric
- Is_archived : boolean

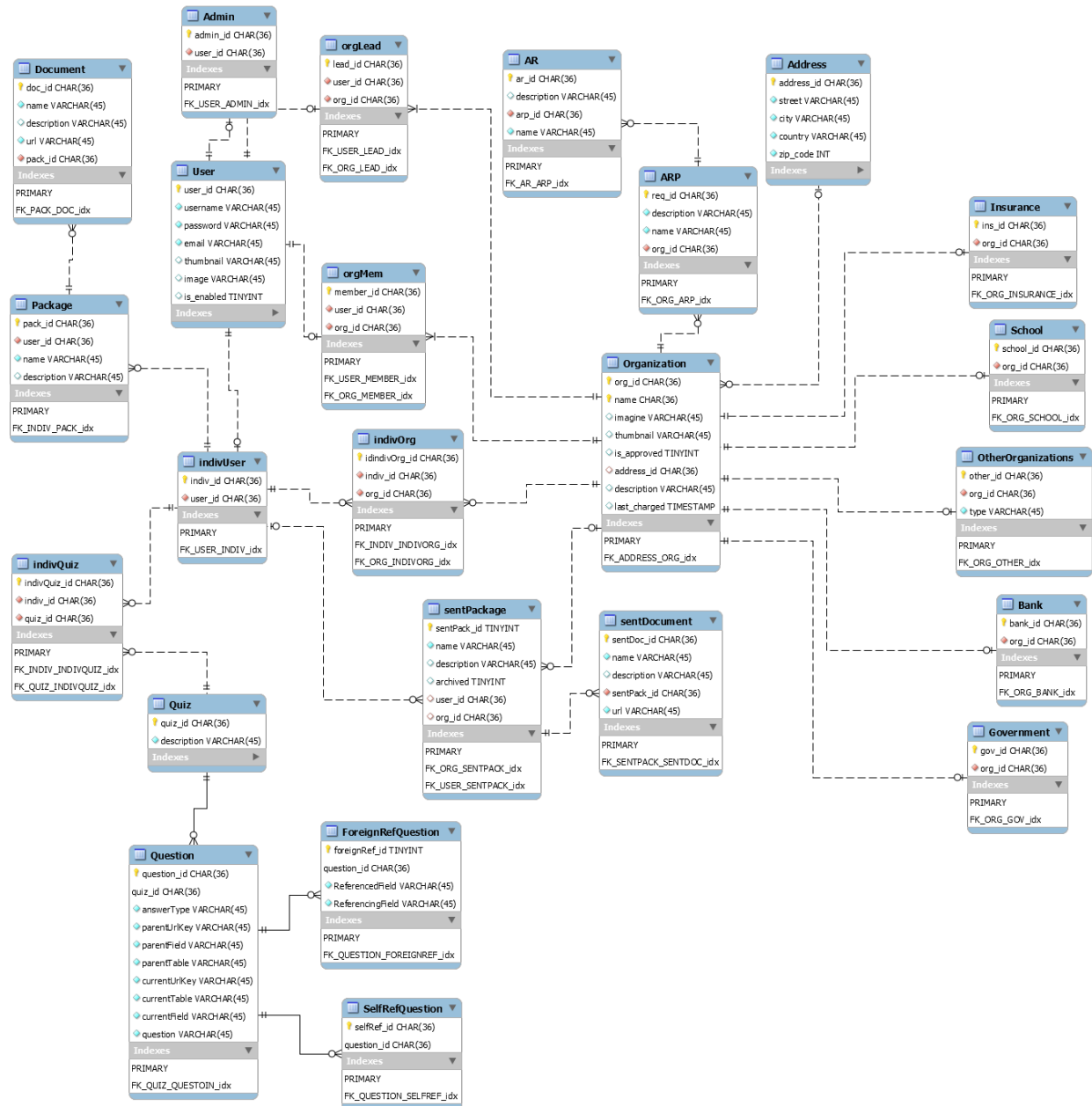
19. SentDocument (Weak)

- sentDoc_id : key, alphanumeric
- sentPack_id : weak key, alphanumeric
- Name : alphanumeric
- Description : alphanumeric
- Url : alphanumeric

Entity Relationship Diagram (ERD)



Enhanced Entity Relationship (EER)



DBMS we will be using:

MySQL because it is the most popular relational database system and it is easy to use.

II - Media Storage -

Files will be accepted only in PDF, PNG, JPEG, JPG format. These files will be hosted in AWS S3 Buckets, and their urls will be stored in the database

III - Search/Filter Architecture and Implementation

In order to search for the data, we will use MySQL's 'SELECT' query. Our home page has a search bar where the user can search for organizations that are currently partnered with Docupaxx. Once the user clicks the search button, the system will use the keyword to build the SELECT query to be sent to the database, and will receive the list of matches if such organizations exist, and will receive an empty list otherwise. Furthermore, the user will also be able to search for an organization by type -- they will be presented with a list of all types of partnered organizations -- and will be able to filter their search results by selecting the type of organization they are looking for. After that, they can input the name of the organization and will only receive search results that contain matching organizations of the specified organization type. This process will also be conducted with a SELECT query, but will contain additional parameters in order to filter the results.

5. High Level APIs and Main Algorithms

APIs

Send Package API: The Send Package API powers one of our core features, sending packages. This API enables users to not only send their package to organizations, but ensures that the packages cannot be modified by the user after being sent as well. To achieve this, it utilizes another in-house API, Clone URL API to clone the packages and all of the documents they contain.

Clone URL API: This API is responsible for cloning files that are in the system. Since the urls to files are stored in the database, Clone URL API downloads the document located at the given url and generates a new url by re-uploading the entire contents to a new location, thereby cloning the file.

Get Package API: The Get Package API is another one of our core features, allowing for the retrieving of packages. This API enables users to find all packages that they have uploaded. It's also used by organizations when finding packages that have been sent.

Main Algorithms:

Searching: Users will be able to search for documents, packages, and organizations. They will be able to search for documents and packages by their title, and search for organizations by their name. Since our product allows users to create packages these standards will be met.

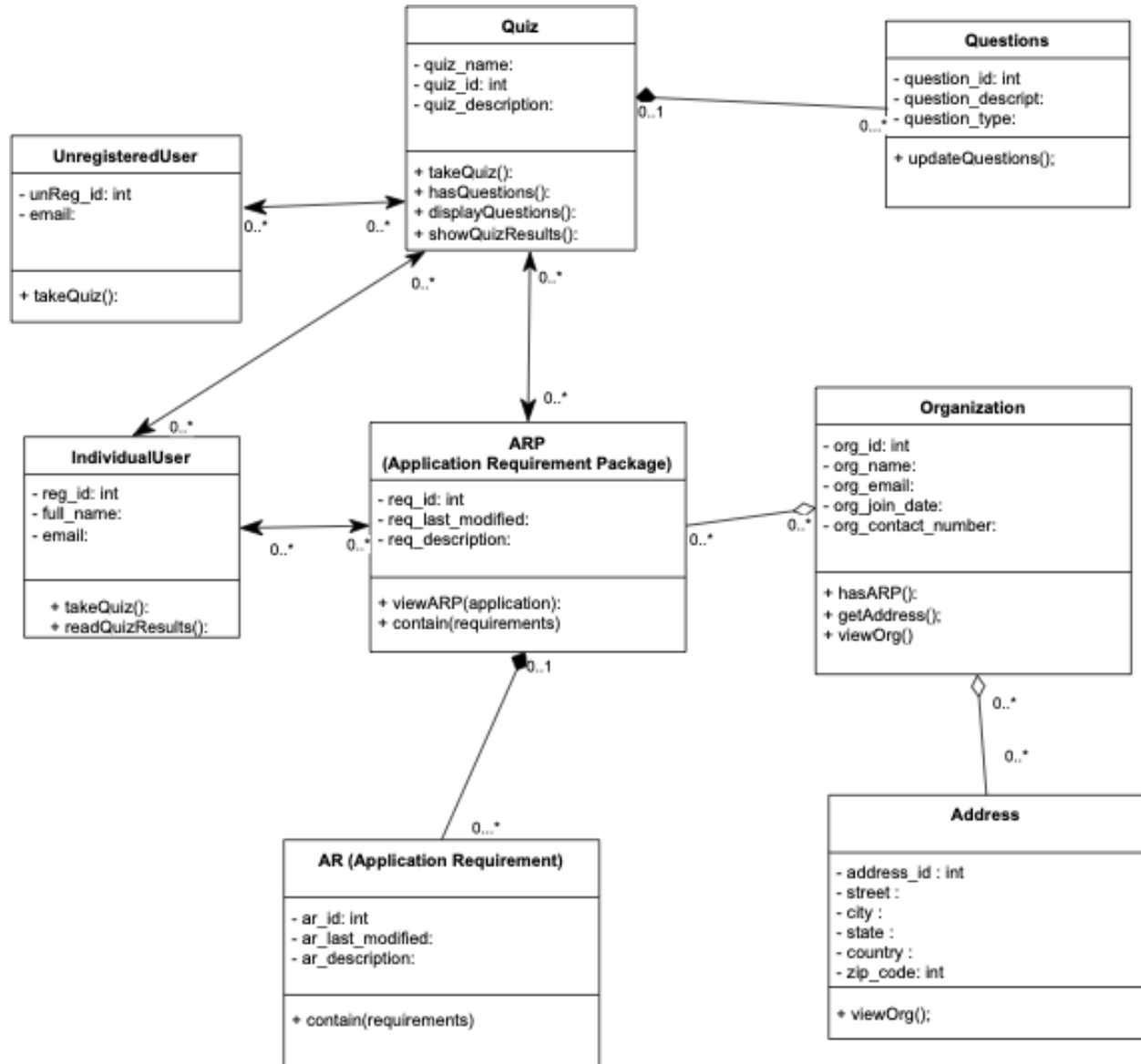
i) Search by attribute - A 'SELECT' query that obtains all entities that contain a given attribute value

ii) Search by a related entity's attribute - A nested 'SELECT' query that obtains all matching entities that contain specific attributes generated from the results of another Search by attribute of another related entity.

Quiz Iteration (General): For all quizzes in our system, we shall iterate through the quiz's list of questions. The question type of each question will determine the kind of search algorithm that is to be conducted for the possible answers to the next question, as well the information to be recorded from the search. The search algorithm for the final question, however, will always look for a set of Application Requirement Packages for an Organization.

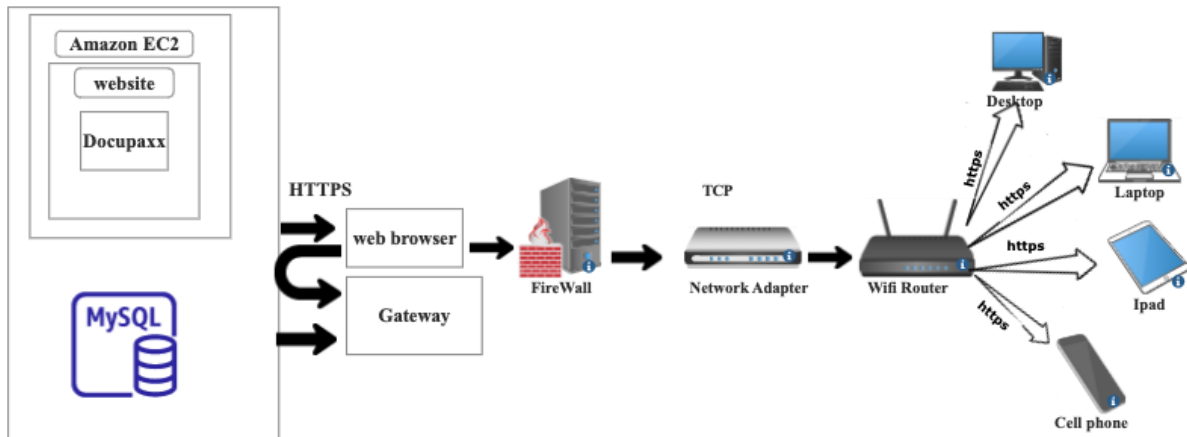
Getting Started Quiz : The Getting Started quiz begins with a question that asks the user which country their intended organization is located in. This will use the *Search by a related entity's attribute* to obtain the list of countries of all organizations that are partnered with Docupaxx. Once the user selects their country, it will trigger another *Search by attribute* to list all of the cities in the selected country -- which will be used for the second question. Once the user selects a city, it will trigger a *Search by a related entity's attribute* that will list all organizations that are located in the selected city. Once an organization has been selected, it will trigger a *Search by a related entity's attribute* to list all of the Application Requirement Packages that the selected organization offers.

6. High Level UML Diagrams

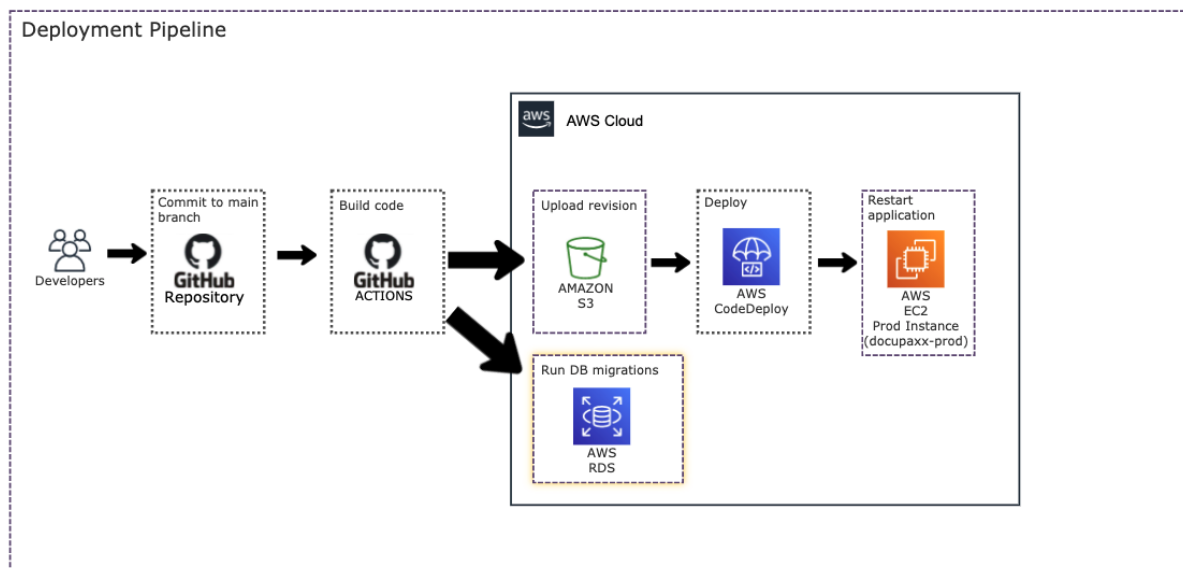


7. High Level Application Network and Deployment Diagrams

Network Diagram:



Deployment Diagram:



8. Identify actual key risks for your project at this time

Skills Risks: Some of us in the team are unfamiliar with the language we are going to code our project since everyone has learned different coding languages. Even though we might not know a particular skill we have been helping each other by providing different resources in which we can learn the language. There is also going to be a meeting where one member of our team who has experience with React and JavaScript will show us the foundation and we will continue to build our knowledge.

Schedule Risks: Since we are taking upper division classes, our schedules are busy and it can be difficult for every team member to attend every scheduled meeting. This may result in some team members being absent in some meetings. To fix this, whenever a team member has to miss all or part of a meeting, the team leads fills them in about the information discussed at the meeting and asks if they approve of the meeting's actions. Also if there is little overlap between team members' availability, the meeting is balanced such that the meeting starts with the members that can make it early and ends with the member that can make it later, each member is being filled in on the information they missed. We are also messaging each other through discord and writing comments on the google doc to resolve any issue we encountered or to provide our thoughts. Additionally, we are also using Trello, an app in which we could write the tasks we are doing to make sure we are making progress. Once we get our task done we mark it with a check mark so the team knows what has been completed and what else still needs to be worked on.

Technical Risks: Due to the pandemic, our team communication may be hampered by remote communication because we are online. Since we are not in close proximity, it will be difficult to help each other debug problems, as we can only see a limited display of another

person's system. To account for this, we will utilize Zoom's screen sharing feature to help look through each other's systems. During a live meeting, we shall use screen sharing to take a look into an individual's programming problems, and if the issue is too big, a special private meeting will be taken with the affected individual to formulate ways of fixing the problem.

Teamwork Risks: Our teamwork is generally solid, as the team works well together.

However, potential risks include the possibility of excessively slacking from their work, too much of one individual's perspective on work, lack of trust between members, general rudeness, and unilateral decisions by an individual. If an individual significantly demonstrates one or more of these problems, either the Team Lead or a group of members will talk with that individual, and both parties share their concerns. In that talk, we will try to work out a solution, so that the team member does not hamper the group's team work.

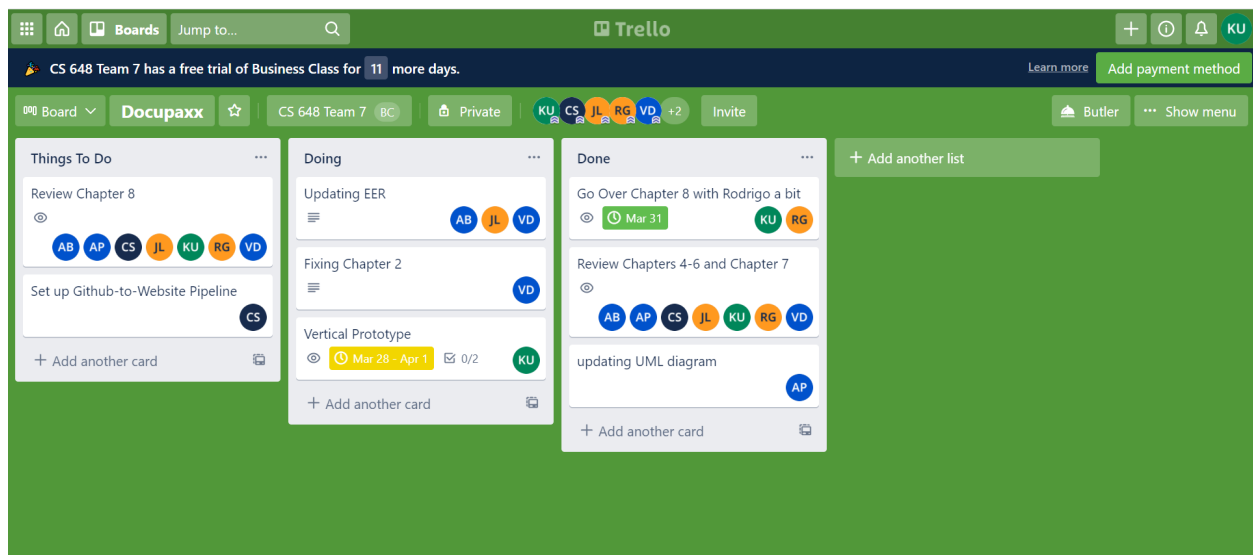
Legal/Content Risks: This project requires the Organizations acceptance which could potentially cause a problem if they don't comply because they are the ones that provide the feedback to the user and potential acceptance of application. As we collect documents and send them to organizations it can be a security risk as it contains the users' information which the users might not want to share. To commend this issue we will make sure that we make a statement where the user accepts that their documents will be uploaded to our database. In addition, another security risk is that we have to ensure users' information are not leaked and shared for privacy reasons. Other than getting permission from the Organization for submission function, we are also thinking of using antivirus software to protect both our data and client's data. Furthermore, our frequency of backups to external storage and cloud storage will be done

weekly to improve our data security. Every password created on the website will need to follow the strong password guideline.

9. Project management

For this project, our team has mostly managed our tasks through coordination via Google Docs and Discord. Through Google Docs, we have written a schedule and To Do List for our Milestone 2 tasks. Further coordination of our project tasks, in order to complete internal checkpoints, was done by messaging through Discord of the required tasks.

For this milestone, we have started using Trello to augment our Task Management, and we will use it for future tasks. With Trello we will easily be able to see what subtasks are being done by which members and the due dates of each of the subtasks. From here, members can also check if a specific subtask is completed by a group, which can help in coordinating tasks afterward, and the tasks will be assorted in a simple at-a-glance perspective. Trello will help us manage tasks and check the overall progress of the project.



10. Detailed list of contributions

| Member | Role | Contributions |
|--------|----------------------------|---|
| Kyle | Team Lead Github Master | <p><u>Documentation:</u> Main Data Items and Entities (Worked as Team) Functional Requirements (Worked as Team + M2V2 Team Edits) UI Mockups and Storyboard (Drew and Refined Mockups) Database Architecture (Review and Proposed Suggestion) High Level APIs and Algorithms (Review and Minor Assistance + M2V2 Edits) UML Diagrams (Review only) Network and Deployment Diagrams (Review only) Key Risks (Review and Minor Assistance) Project Management (Primary Contributor)</p> <p><u>Vertical Prototype:</u> Code Review</p> |
| Can | Front-End Lead | <p><u>Documentation:</u> Main Data Items and Entities (Worked as Team) Functional Requirements (Worked as Team + M2V2 Team Edits) UI Mockups and Storyboard (Drew Mockups) Database Architecture (Review Only) High Level APIs and Algorithms (Review Only) UML Diagrams (Review Only) Network and Deployment Diagrams (Significant Assistance) Key Risks (Review Only) Project Management (Review Only)</p> <p><u>Vertical Prototype:</u> Implemented Prototype UI Implemented Skeleton for Query Inserts and Deletes Implemented CI/CD Pipeline</p> |

| | | |
|-------|---------------|---|
| | | Improved VP during M2V2 Edit Period |
| Amron | Back-End Lead | <u>Documentation:</u> Main Data Items and Entities (Worked as Team) Functional Requirements (Worked as Team + M2V2 Team Edits) UI Mockups and Storyboard (Review Only) Database Architecture (Co-Primary Contributor + with M2V2 Edits) High Level APIs and Algorithms (Co-Primary Contributor + with M2V2 Edits) UML Diagrams (Co-Primary Contributor) Network and Deployment Diagrams (Review Only) Key Risks (Review Only) Project Management (Review Only) <u>Vertical Prototype:</u> Completed Database Query Implementation Code Documentation Performed Code Demo |
| Vi | | <u>Documentation:</u> Main Data Items and Entities (Worked as Team) Functional Requirements (Worked as Team + M2V2 Team Edits) UI Mockups and Storyboard (Contributed to Home Page Template) Database Architecture (Co-Primary Contributor + M2V2 Edits) High Level APIs and Algorithms (Review Only + M2V2 Edits) UML Diagrams (Co-Primary Contributor) Network and Deployment Diagrams (Review Only) Key Risks (Appended Legal Risks) Project Management (Review Only) |

| | | |
|---------|--|--|
| Anna | | <u>Documentation:</u> Main Data Items and Entities (Worked as Team) Functional Requirements (Worked as Team + M2V2 Team Edits) UI Mockups and Storyboard (Drew Mockups) Database Architecture (Review Only) High Level APIs and Algorithms (Review Only) UML Diagrams (Co-Primary Contributor) Network and Deployment Diagrams (Review Only) Key Risk (Appended Legal Risks) Project Management (Review Only) |
| Rodrigo | | <u>Documentation:</u> Main Data Items and Entities (Worked as Team) Functional Requirements (Worked as Team + M2V2 Team Edits) UI Mockups and Storyboard (Review Only) Database Architecture (Review Only) High Level APIs and Algorithms (Co-Primary Contributor + M2V2 Edits) UML Diagrams (Review Only) Network and Deployment Diagrams (Co-Primary Contributor) Key Risks (Co-Primary Contributor) Project Management (Review Only) Added Newsletter API during M3V1 |
| Janson | | <u>Documentation:</u> Main Data Items and Entities (Worked as Team) Functional Requirements (Worked as Team + M2V2 Team Edits) UI Mockups and Storyboard (Review Only) Database Architecture (Co-Primary Contributor + M2V2 Edits) High Level APIs and Algorithms (Review Only + M2V2 Edits) UML Diagrams (Co-Primary Contributor) Network and Deployment Diagrams (Review Only) Key Risks (Review Only) Project Management (Review Only) |

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