

# Progress Note

# Logging Application

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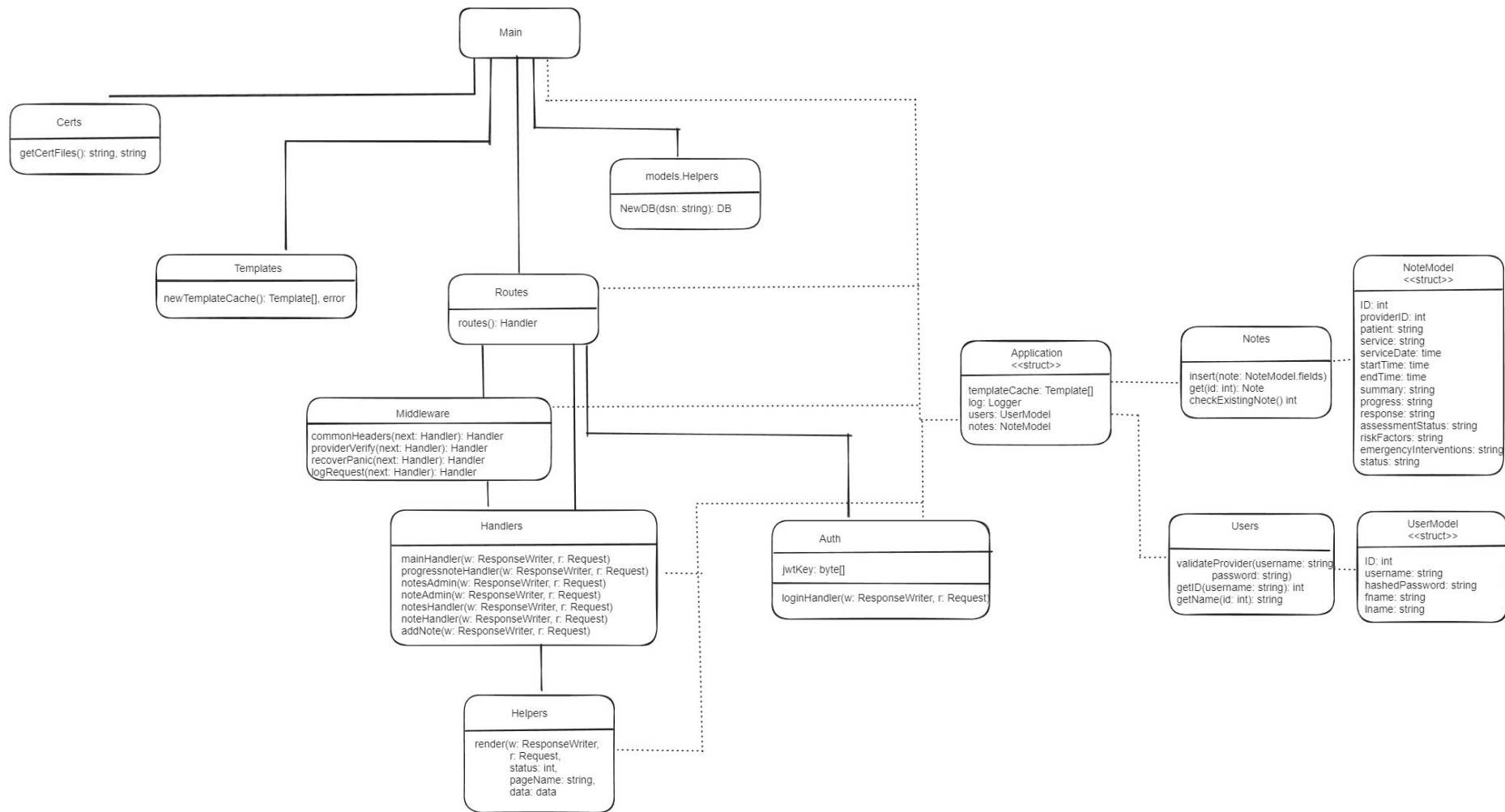
# Recap

- Many autism centers use a paper-based progress note system, which is incredibly inefficient in practice.
- Paper workflow: print/fill/scan document -> print/sign/scan document -> parse signed scans by hand for billing information.
- Creating a software to digitalize said workflow, saving time and paper.

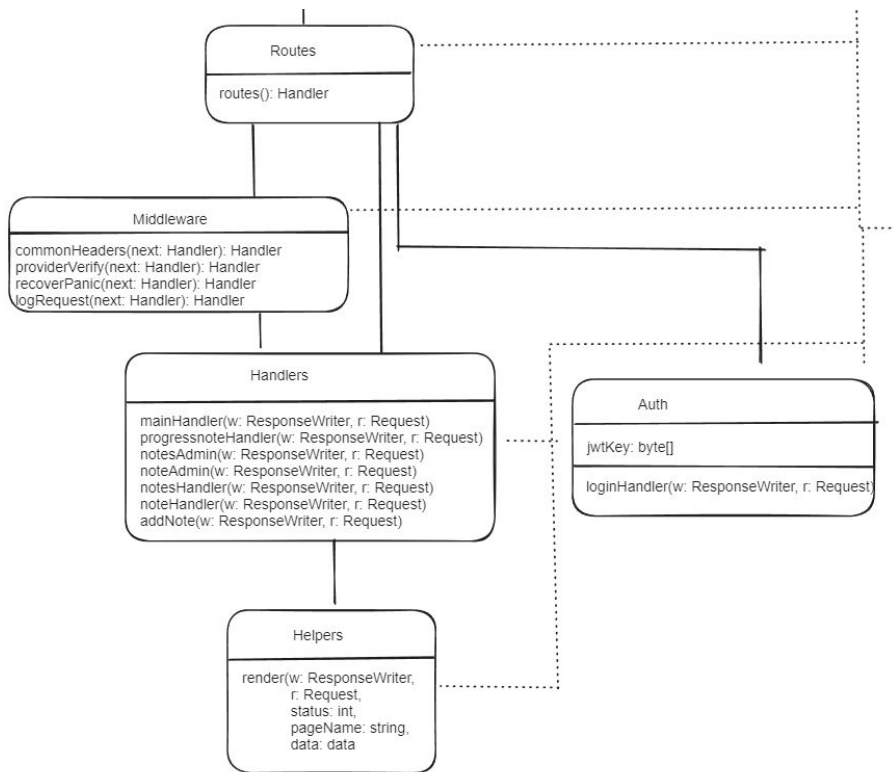
# Changes from Sprint 1

- Reworked our primary actors to just 2 roles for the scope of this project: Providers & Administrators.
  - Consolidating Administrators and Overseeing Doctors into one role that can perform the actions of both, as they are both authorized to view all progress notes.
  - Providers can create notes and view the notes they are authorized to view.
  - Based on feedback from the autism center, we learned that an Administrator will sometimes perform the roles of a Provider.
  - Thus, for this project, administrators will be able to perform the actions a provider can perform, on top of their standard abilities.
- Reworked our stories to match these changes.
- Walking skeleton is focused on user/Provider stories.
- Admin-specific stories will be implemented for MVP.

**Architecture**

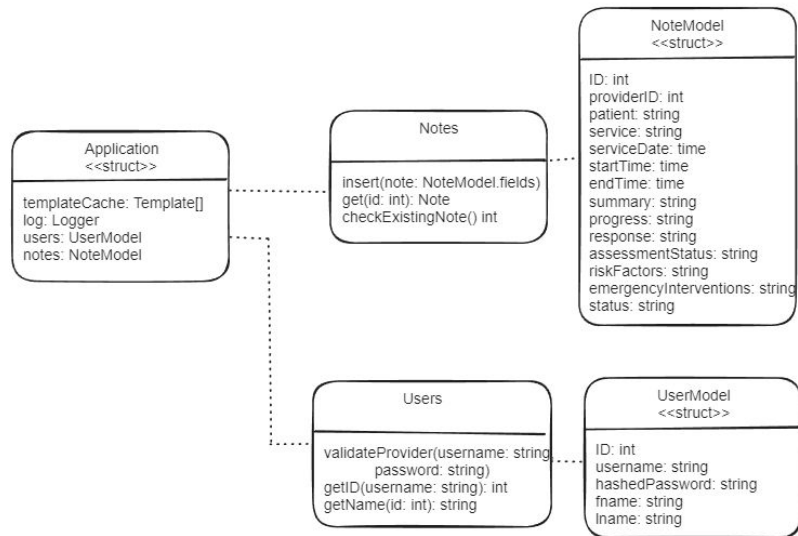
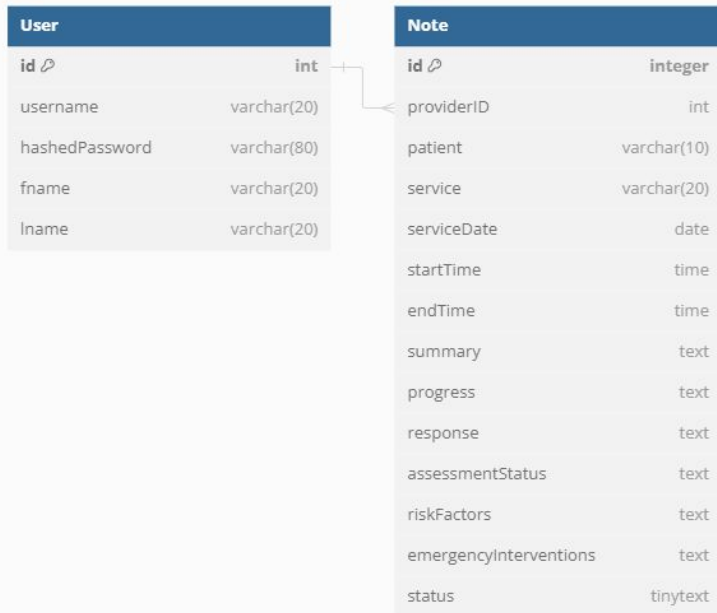


# Routing



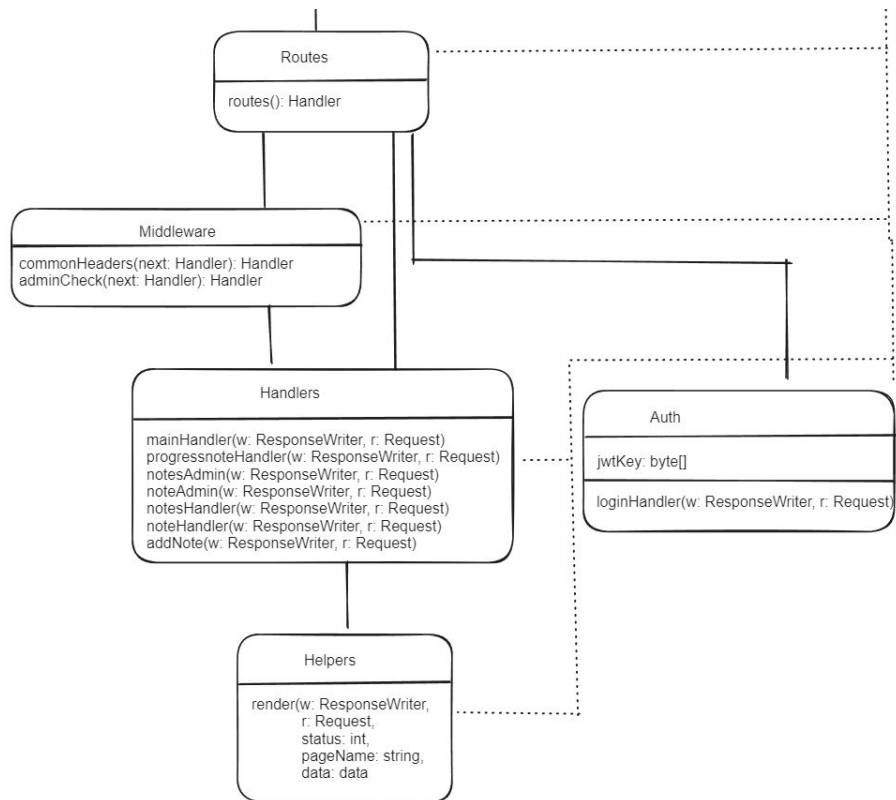
Method	Path	Handler	Page	Middleware
any	/	mainHandler	home.html	
any	/note/{id}	noteHandler	note.html	providerVerify
any	/notes	notesHandler	notes.html	providerVerify
GET	/add-note	addNoteGet	add-note.html	providerVerify
POST	/add-note	addNotePost	redirect(/note/{id})	providerVerify
any	/logout	logout	redirect(/)	providerVerify
GET	/login	getLogin	redirect(/login)	providerVerify
POST	/login	postLogin	redirect(/notes)	providerVerify

# Database





# Authentication



# Non-Functional Requirements

Security

Privacy

Ease of use

Error handling

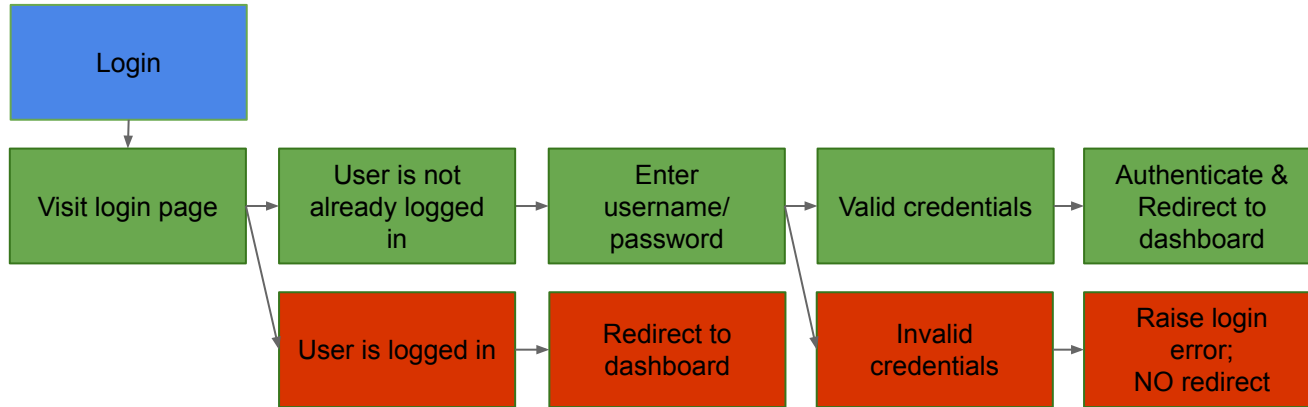
Flexibility

Interoperability

Data management

**S2 Stories**

# Login: Story Map



# Login: Feature File & Data Definition

```
Feature: Login
As a user
I need the system to authenticate who I am
So that I can perform actions I am authorized to do.

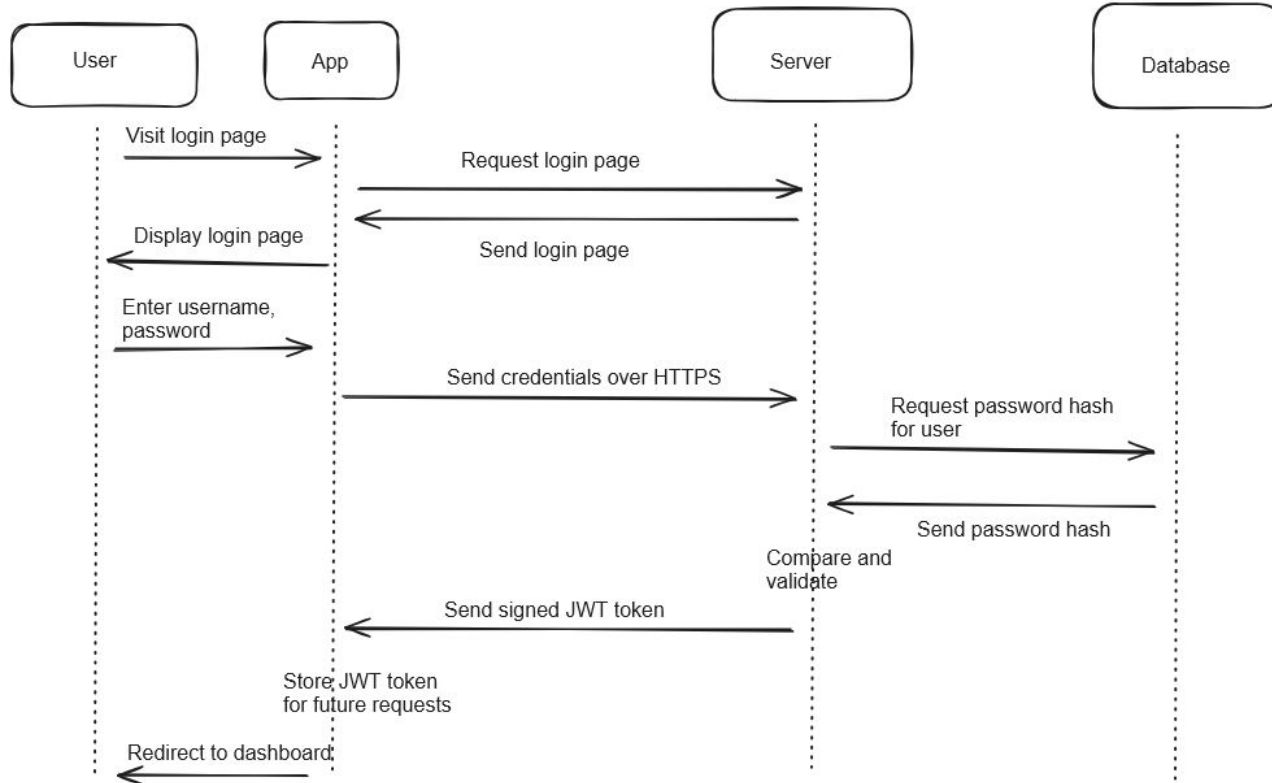
# Happy path
Scenario: User successfully logs in with valid credentials
Given The user is not logged in
When The user visits the login page
And submits a valid username and password
Then The system verifies the submitted username and password
And Logs the user in
And Redirects the user to the dashboard

# Unhappy path
Scenario: User unsuccessfully logs in with invalid credentials
Given The user is not logged in
When The user visits the login page
And submits an invalid username and password
Then The system fails to verify the submitted username and password
And Displays an "invalid credentials" error message

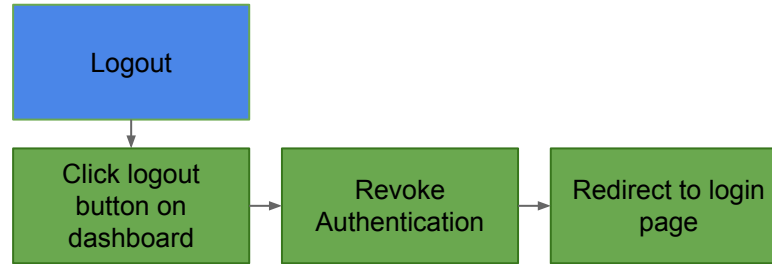
# Un/Happy path? not sure
Scenario: User tries to visit the login page while already logged in
Given The user is logged in
When The user visits the login page
Then The system redirects the user to the dashboard
```

Field Name	Description	Len	Type	Req'd	Valid Values	Default	Business Rules
username	Name of the user. After successful login, it's signed by JWT	8:20	Text	Y	Alphanumeric	None	Entered by user in login portal
password	Password of the user	8:20	Text	Y	Alphanumeric	None	Entered by user in login portal
JSON Web Token (JWT)	Token containing and signing username and token expiration time		Signed Token	Y		None	Created when a user logs in. Automatically expires after 1 hour. Payload includes user ID.

# Login: Sequence Diagram



# Logout: Story Map



# Logout: Feature File & Data Definition

**Feature:** View Specific Progress Note

As a user

I need to be able to log out of my current session

So that I ensure others that use the same machine as me do not have unauthorized access to privileged information

# Happy path

**Scenario:** User successfully logs out

**Given** The user is authenticated

**And** On the dashboard page

**When** The user clicks "Log Out"

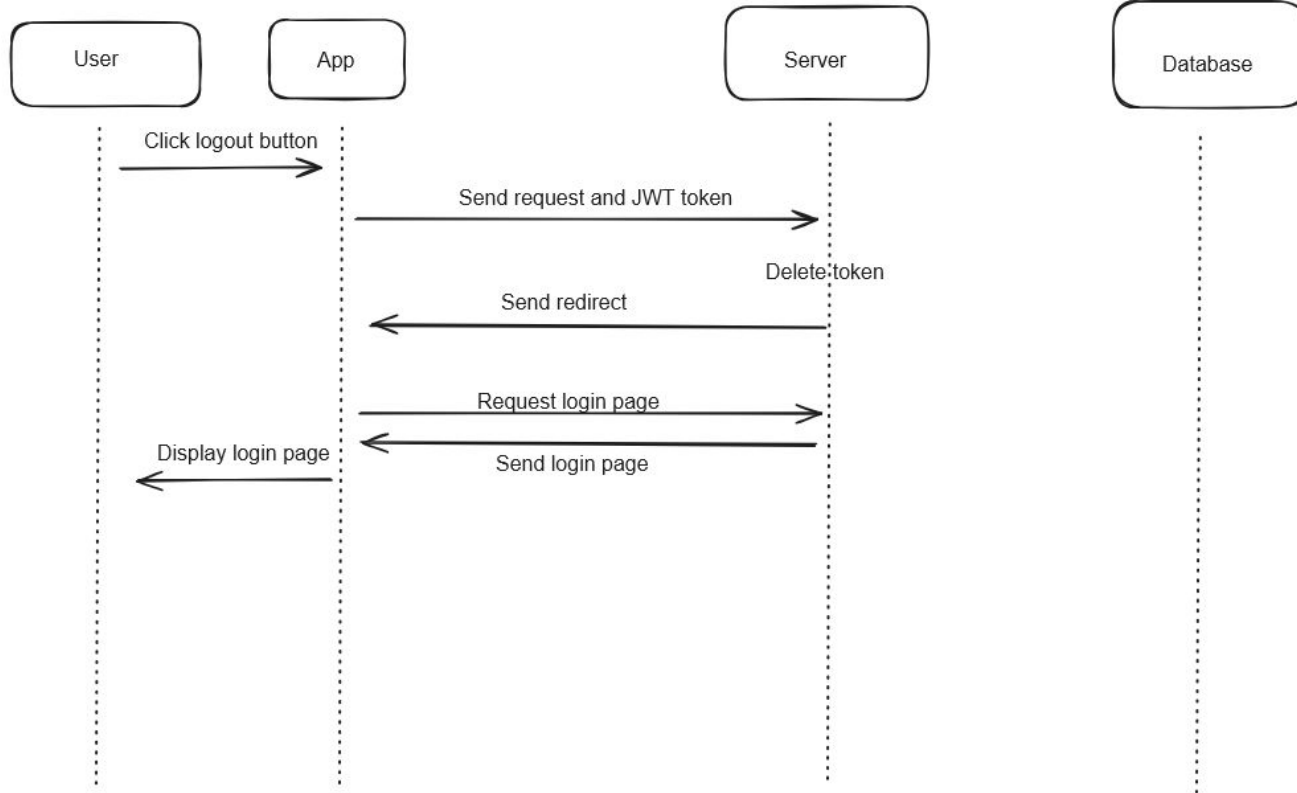
**Then** The system logs the user out

**And** deletes the cookie containing authentication information

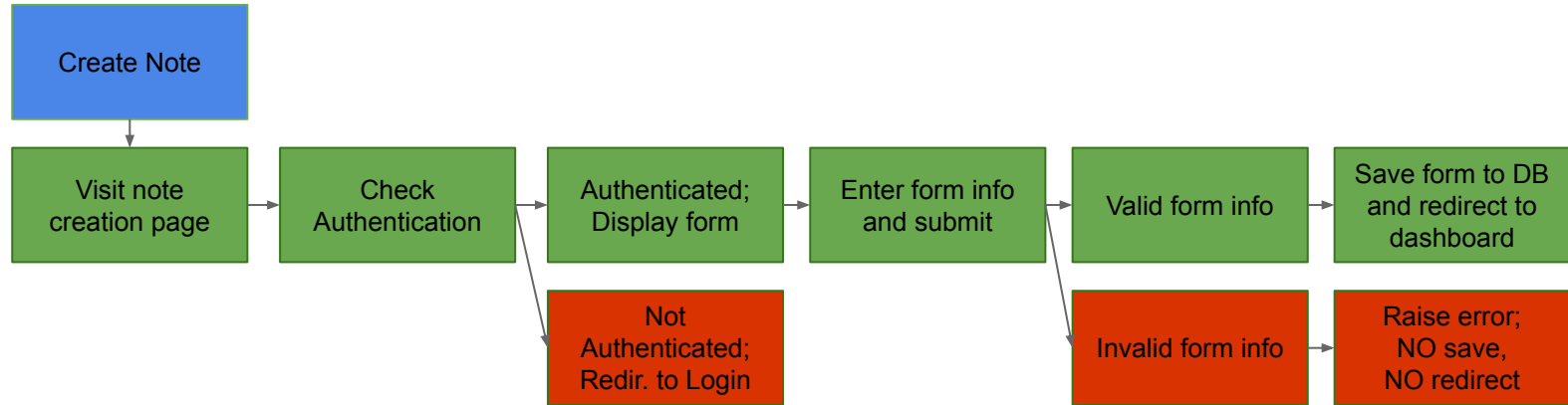
Logout							
Field Name	Description	Len	Type	Req'd	Valid Values	Default	Business Rules
JSON Web Token (JWT)	Token containing and signing username and token expiration time		Signed Token	Y		None	Token is cleared from user's cookies, automatically expires after hour



# Logout: Sequence Diagram



# Create Note: Story Map



# Create Note: Feature File & Data Definition

```
Feature: Create Progress Notes
As a user,
I need to create progress Notes
So I can log and maintain the progress of patients I work with

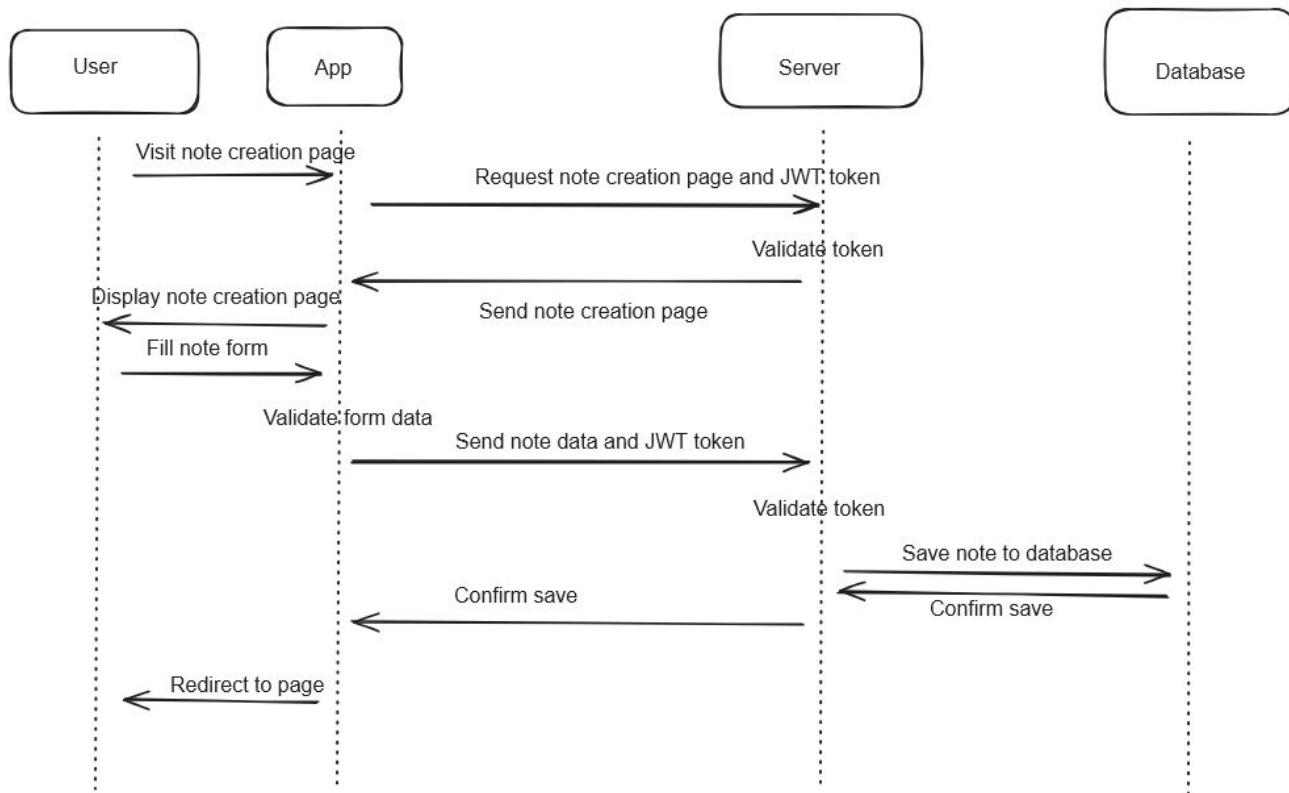
# Happy path
Scenario: User successfully creates a progress note
Given The user is authenticated
When The user visits the note creation page
And Enters valid values into the form fields
And Submits the form
Then The system saves the note to the database
And Redirects the user to the dashboard

# Unhappy path
Scenario: The user unsuccessfully creates a progress note due to invalid input
Given The user is authenticated
When The user visits the note creation page
And Enters invalid values into the form fields
And Submits the form
Then The system raises an error notifying the user which fields contain invalid input

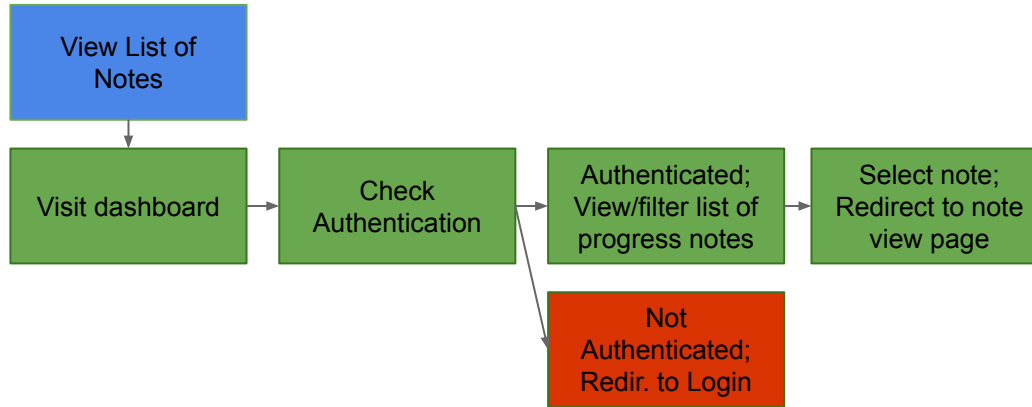
# Unhappy path
Scenario: The user is not authorized to create a note
Given The user is not authenticated
When The user visits the note creation page
Then The system redirects the user to the login page
```

Create Note							
Field Name	Description	Len	Type	Req'd	Valid Values	Default	Business Rules
Note ID	ID of the specific note being created	1:10	Number	Y	digits 0-9	None	Autoassigned by system when note is uploaded
Provider ID	User ID of the provider creating the progress note.	TBD	Text	Y		None	Assigned to a user when an account is created. Increments when a new user is created. Retrieved from JWT after user logs in.
Patient Name	Name of patient the provider is interacting with for the given note's session	TBD	Text	Y	Alphanumeric	None	Entered by user.
Service	Type of service the patient is receiving	TBD	Text	Y	Alphanumeric	None	Entered by user.
Service Date	Date when the service took place	N/A	Date	Y	Any date	None	Entered by user.
Start Time	Start time of service	N/A	Time	Y	0:00 to 23:59	None	Entered by user.
End Time	End time of service	N/A	Time	Y	0:00 to 23:59	None	The end time must come chronologically after the start time. It cannot cross midnight.
Summary	Summary of treatment provided to patient	TBD	Text	Y	Alphanumeric	None	Entered by user.
Progress	Progress with the overall treatment over many sessions	TBD	Text	Y	Alphanumeric	None	Entered by user.
Response	The patient's response to the treatment	TBD	Text	Y	Alphanumeric	None	Entered by user.
Assessment Status	The provider's assessment of the current mental health of the patient	TBD	Text	Y	Alphanumeric	None	Entered by user.
Risk Factors	Any risk factors that may be pertinent to ongoing treatment	TBD	Text	Y	Alphanumeric	None	Entered by user.
Emergency Interventions	Any emergency interventions	TBD	Text	Y	Alphanumeric	None	Entered by user.
Status	The status for whether an administrator has approved a note or not	TBD	Text	Y	Pending Approved Denied	Pending	Notes submitted by a provider automatically are set to Pending.

# Create Note: Sequence Diagram



# View Notes: Story Map



# View Notes: Feature File & Data Definition

Feature: View List of Progress Notes

As a user

I need to be able to view a list of all the notes I am authorized to view

So that I can maintain a record of the past therapy sessions I am authorized to view

# Happy path

Scenario: User successfully views the list of progress notes they are authorized to view

Given The user is authenticated

When The user visits the dashboard page

Then The system displays a table of all the progress notes the user is authorized to view with a link to each note

# Unhappy path

Scenario: User unsuccessfully views list of progress notes due to lacking authentication

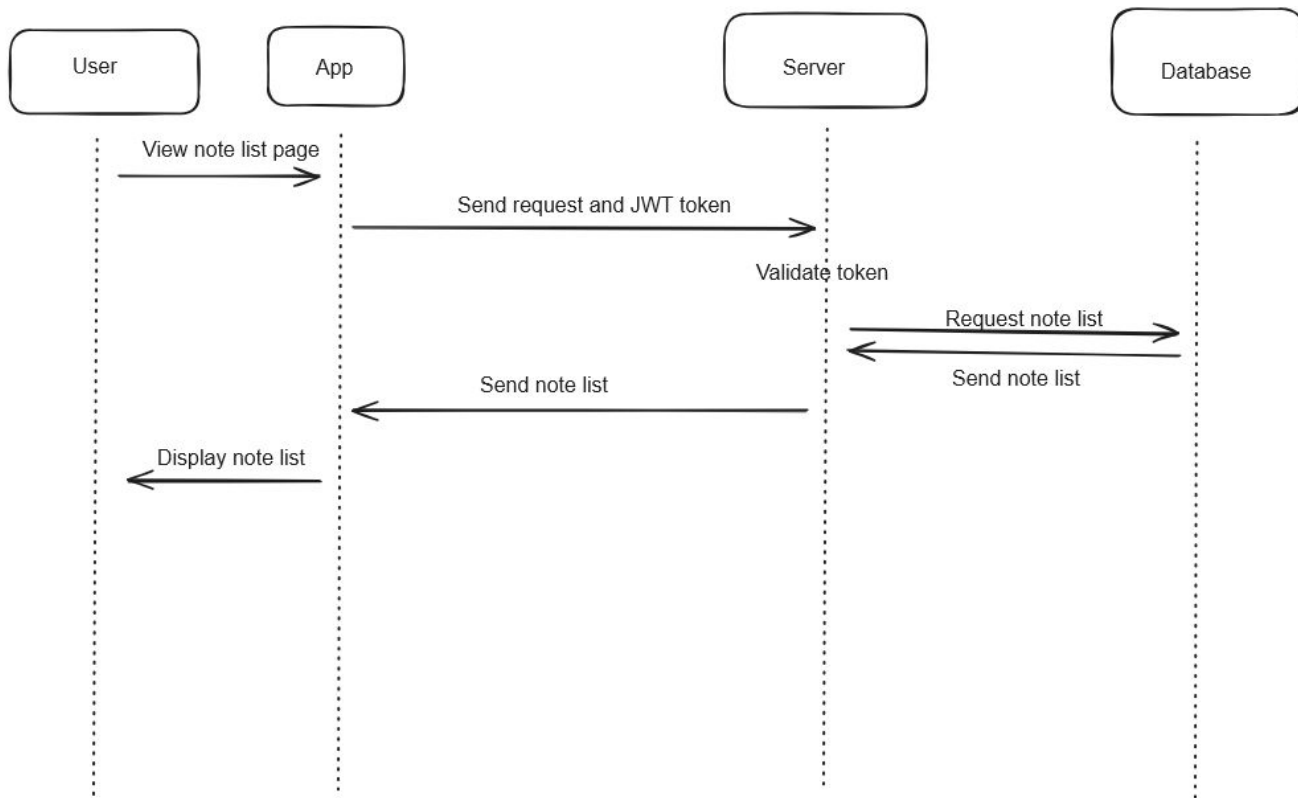
Given The user is not authenticated

When The user visits the dashboard page

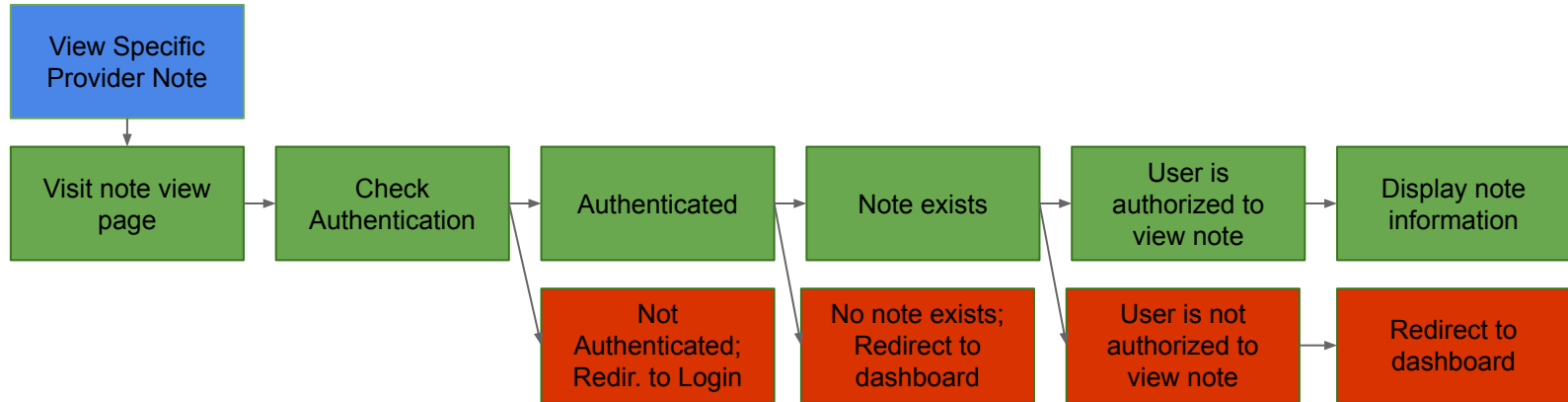
Then The system redirects the user to the login page

View Notes							
Field Name	Description	Len	Type	Req'd	Valid Values	Default	Business Rules
User ID	An ID corresponding to the user viewing the list of provider notes they have the privilege to access.	1:10	Number	Y		None	Retrieved from JWT after user logs in.
Progress Notes	List of notes the user is authorized to view (Subfields from note displayed: NoteID, PatientName, StartTime, EndTime, ServiceDate, Status)	Indefinite	List	Y	Notes	Empty	Presented as a table. Possible for list to be empty if no authorized notes currently exist. Retrieved from MySQL server when page loads.

# View Notes: Sequence Diagram



# View Specific Note: Story Map





# View Specific Note: Story Map & Data Def.

View Specific Provider Note							
Field Name	Description	Len	Type	Req'd	Valid Values	Default	Business Rules
User ID	ID of the user trying to view the completed progress note	1:10	Number	Y	digits 0-9	None	Used to confirm if the user has appropriate privilege to view the note being accessed. Retrieved from JWT after user logs in.
Note ID	ID of the specific note being viewed	1:10	Number	Y	digits 0-9	None	Retrieved from MySQL server and used to automatically populate the page.
Provider ID	User ID of the provider that created the progress note.	TBD	Text	Y		None	
Patient Name	Name of patient the provider interacted with for the given note's session	TBD	Text	Y	Alphanumeric	None	
Service	Type of service the patient received	TBD	Text	Y	Alphanumeric	None	
Service Date	Date when the service took place	N/A	Date	Y	Any date	None	
Start Time	Start time of service	N/A	Time	Y	0:00 to 23:59	None	
End Time	End time of service	N/A	Time	Y	0:00 to 23:59	None	
Summary	Summary of treatment provided to patient	TBD	Text	Y	Alphanumeric	None	
Progress	Progress with the overall treatment over many sessions	TBD	Text	Y	Alphanumeric	None	
Response	The patient's response to to the treatment	TBD	Text	Y	Alphanumeric	None	
Assessment Status	The provider's assessment of the current mental health of the patient	TBD	Text	Y	Alphanumeric	None	
Risk Factors	Any risk factors that may be pertinent to ongoing treatment	TBD	Text	Y	Alphanumeric	None	
Emergency Interventions	Any emergency interventions	TBD	Text	Y	Alphanumeric	None	
Status	The status for whether an administrator has approved a note or not	TBD	Text	Y	Pending Approved Denied	Pending	

## Feature: View Specific Progress Note

As a user

I need to be able to view any specific progress note I am authorized to view  
So that I can review past therapy sessions I am authorized to view

### # Happy path

**Scenario:** User successfully views a specific progress note they are authorized to view  
**Given** The user is authenticated  
**And** Is authorized to view a specific proogress note  
**When** The user visits the page to view said progress note  
**Then** The system displays the details for the progress note

### # Unhappy path

**Scenario:** User unsuccessfully views a specific progress note due to lacking authentication  
**Given** The user is not authenticated  
**When** The user visits the page to view a specific progress note  
**Then** The system redirects the user to the login page

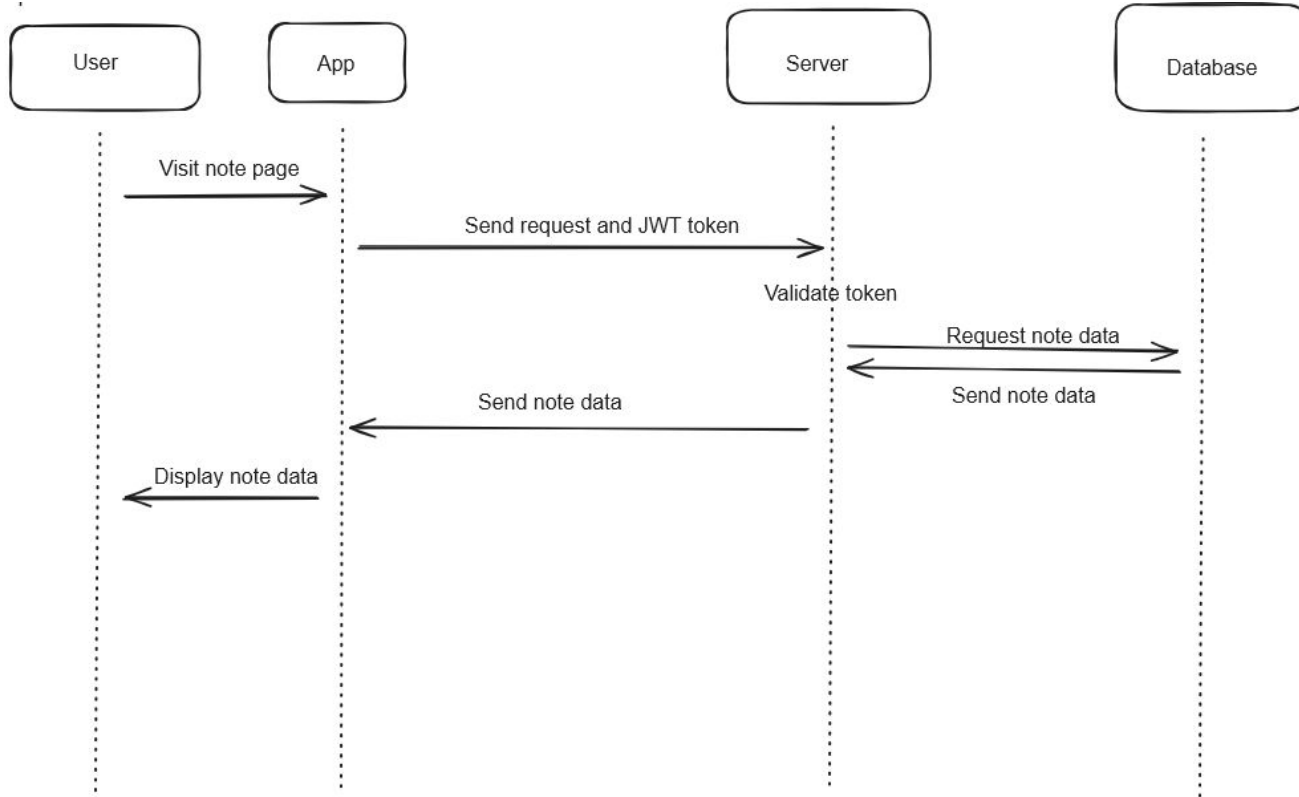
### # Unhappy path

**Scenario:** User unsuccessfully views a specific progress note they are not authorized to view  
**Given** The user is authenticated  
**And** Is not authorized to view a specific proogress note  
**When** The user visits the page to view said progress note  
**Then** The system redirects the user to the dashboard

### # Unhappy path

**Scenario:** User unsuccessfully tries to view a note that does not exist  
**Given** The user is authenticated  
**When** The user visits the page to view a progress note that does not exist  
**Then** The system redirects the user to the dashboard

# View Specific Note: Sequence Diagram



**Tech Demo**

# Speed bumps in Development

- Familiarizing group with codebase
- Storing persistent info

# MVP Stories

# Improvements

## Authorization

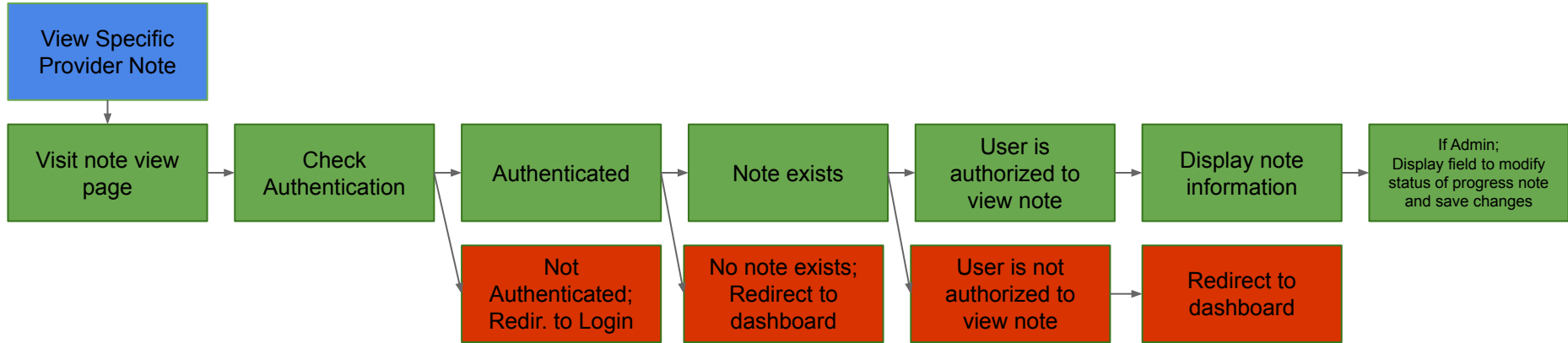
Currently: User specific or global

Plan: Hierarchical roles

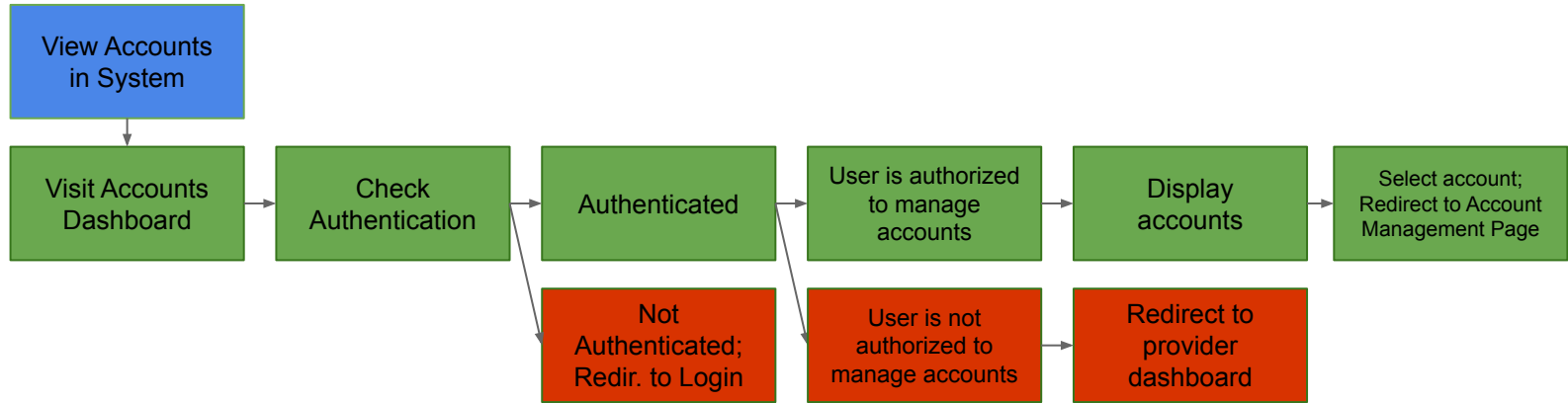
Add field to tables

Add field to JWT

# View Specific Note: Story Map (Update)

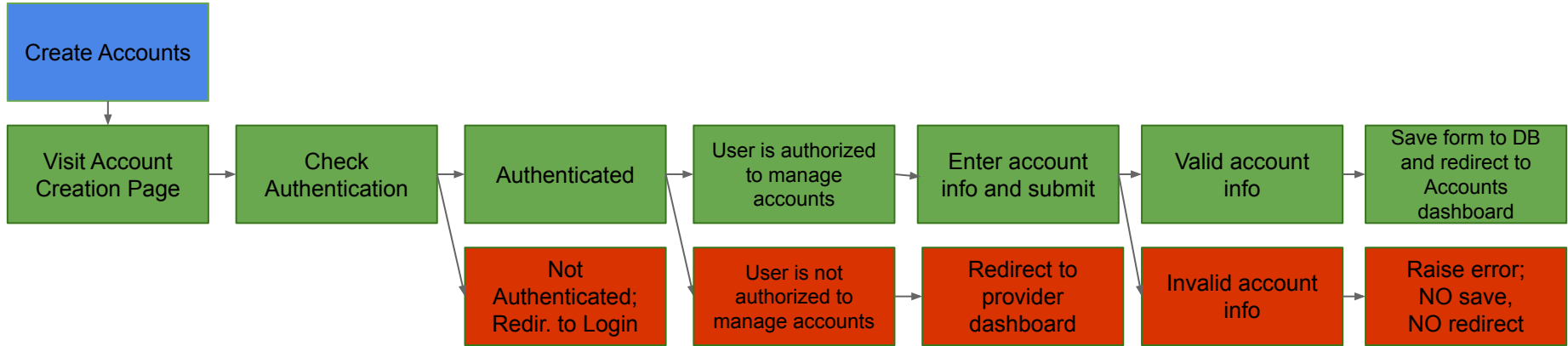


# (Admin) View Accounts: Story Map

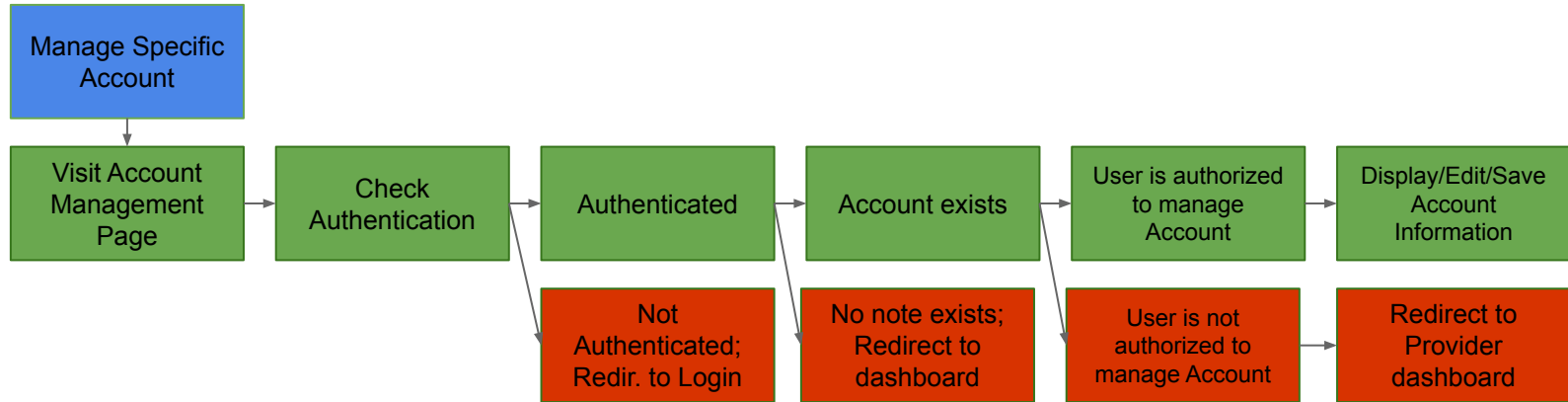




# (Admin) Create Accounts: Story Map



# (Admin) Manage an Account: Story Map



**Thank you!**

**Questions?**

