



# Mid Project Review

## BillSyncEase

Group 1



# Objectives of the project

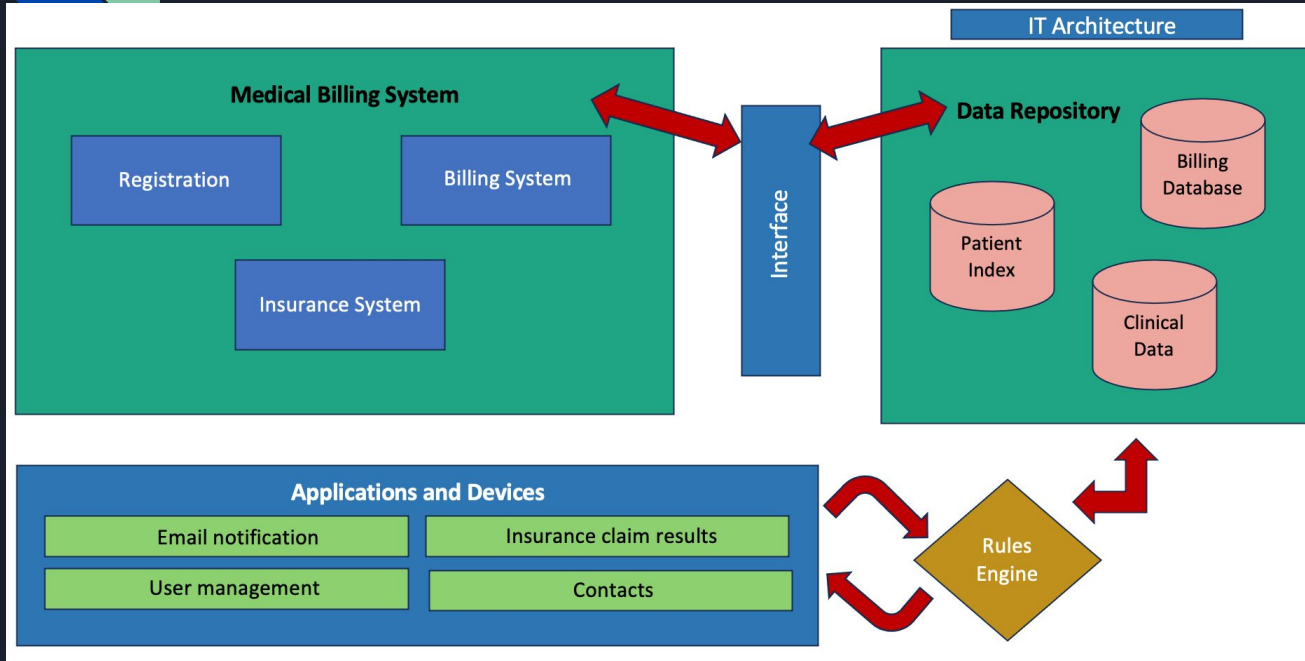
- The main objective of the project is to develop a user-friendly medical billing system that allows patients to easily submit claims for insured healthcare services.
- Aim to reduce the stress associated with healthcare costs, particularly for services that are not covered by universal healthcare in Canada, such as dental care, physiotherapy, and certain surgeries.
- By providing a seamless platform for claim submission, the project seeks to improve accessibility to healthcare services and streamline the reimbursement process for both patients and healthcare providers.



# Goals and Scope of the project

- By the completion of the semester, we intend to have a functional prototype of our medical billing system, that allows users to interact with the platform and utilize the basic features

# System Architecture



## Data Repository:

Large database that is used to manage and store data for analysis

Clinical data

- Medical history

Patient index

- ID, contacts

Billing database

- Addresses, receipts

## Applications and devices:

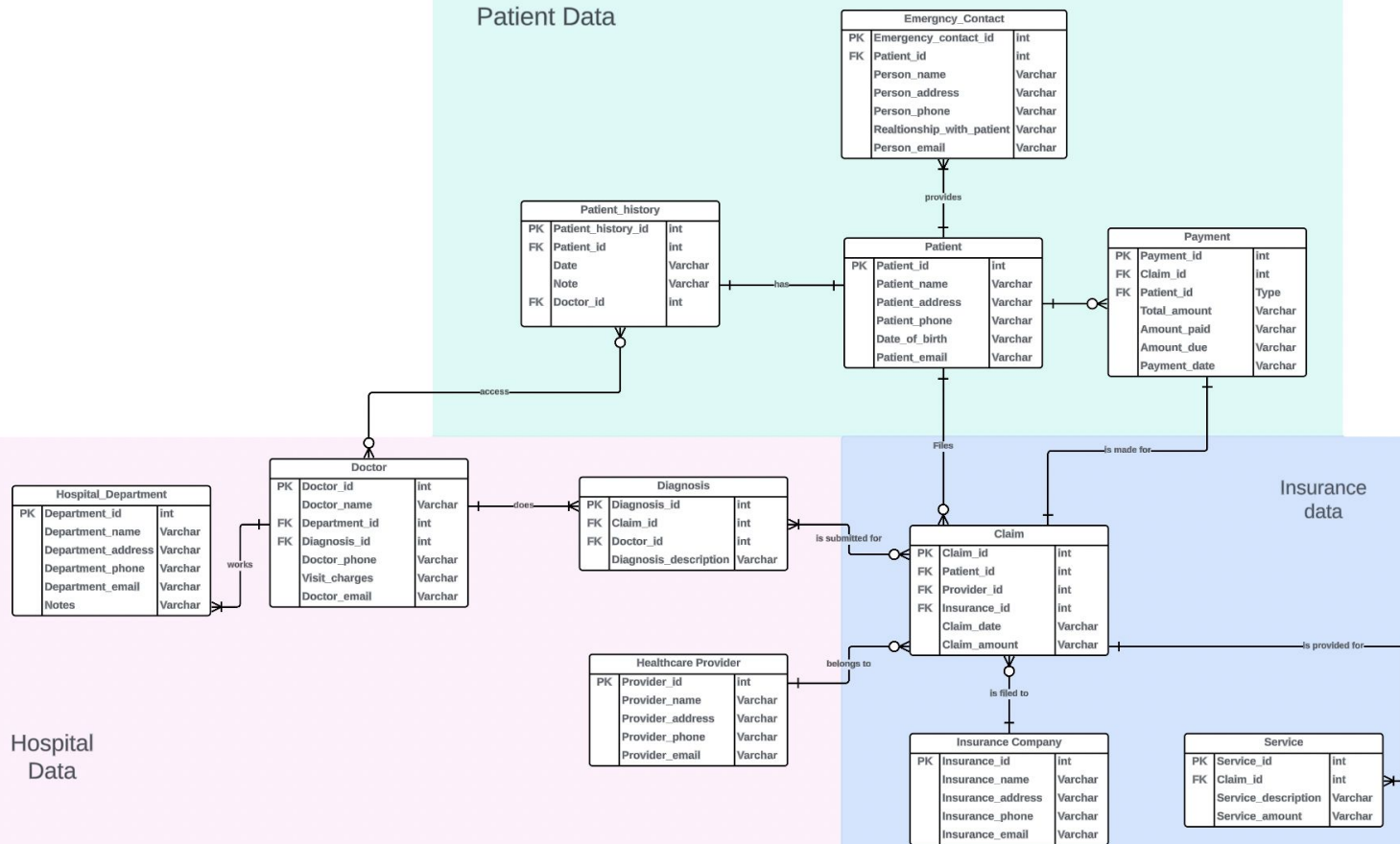
Functions that will be in the app

## Rules Engine:

Deals with authorization and rules



# Database Design Entity Relationship Diagram



# User Flow Diagram - View claim



**Bob**

Age:  
31

Occupation:  
Construction worker

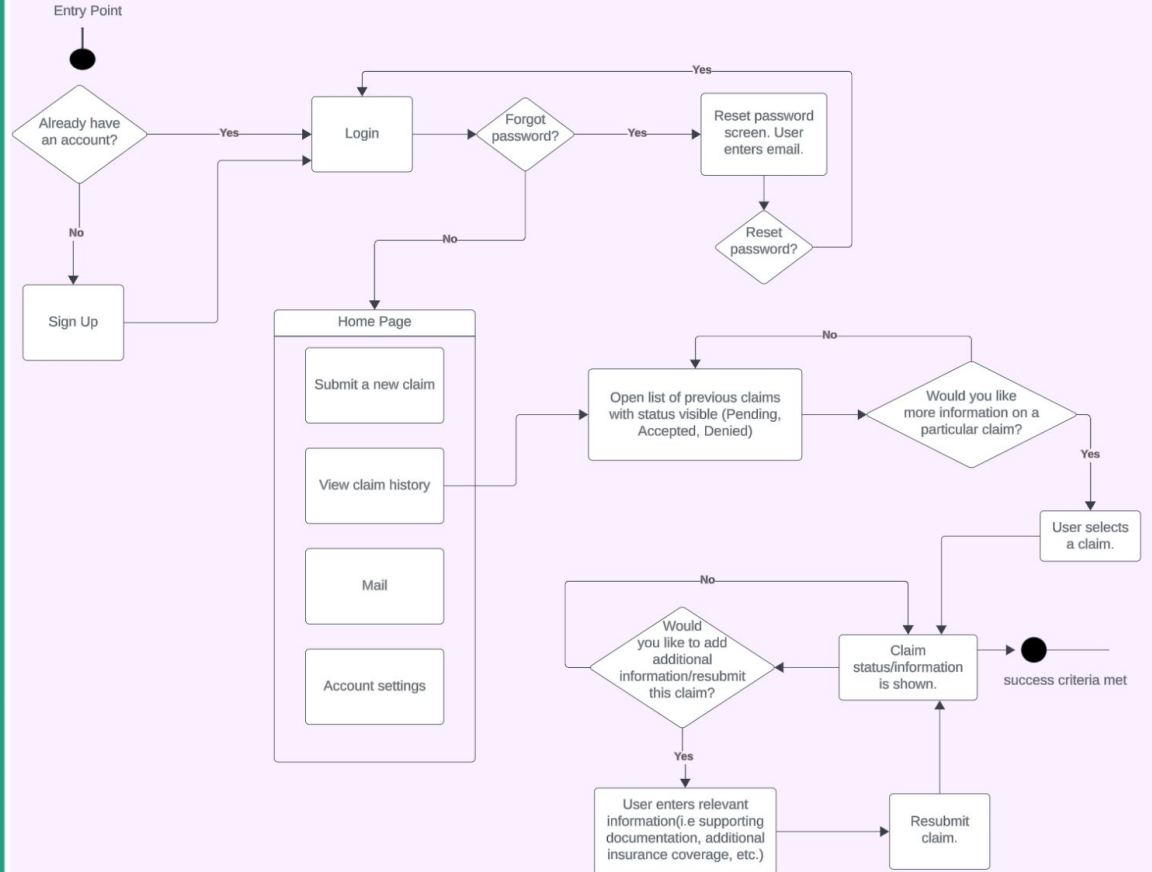
Address:  
25 Poseidon Bay,  
Winnipeg, MB R3M  
3E4

## Objective

As a construction worker, I want to view my previous claim relating to a work injury so that I can provide additional information as needed and comply with return to work policy.

## Task Analysis

- Login or create account
- Password reset
- View all previous claims
- Select a particular claim
- See status of claim
- See information about the selected claim
- Add relevant additional information to claim
- Resubmit claim



# User Flow Diagram - Submit claim



**Melissa**

Age:  
24

Occupation:  
Student

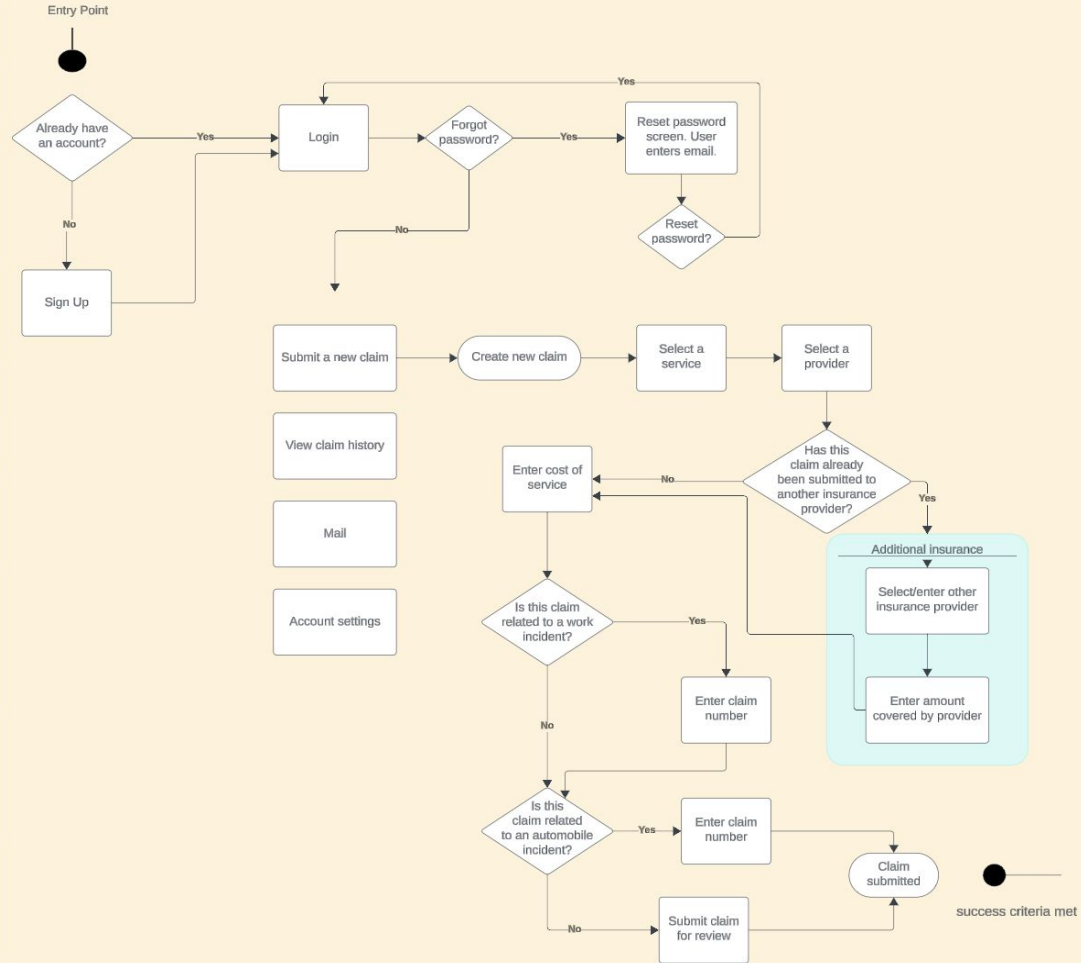
Address:  
109 Sidney Smith St,  
Winnipeg, MB R3T  
2M6

## Objective

As a student, I want to submit claims to my secondary insurance agency for a recent injury so that I can be financially compensated and budget accordingly.

## Task Analysis

- Login or create account
- Password reset
- Generate a new claim file
- Search for a service and select
- Search for a provider and select
- Gather information about additional insurance
- Enter cost of service
- Determine if this claim is associated with other relevant claims
- Submit claim



# Product Backlog

	A	B	C	D	E	F	G
3	1	Customer	Create an account easily	So i do not have to remember many login credentials	High	1	Done
4	2	Customer	Access and view my billing statements online	Monitor charges and payments conveniently	High	1	Done
5	3	Customer	Send and view emails to insurance companies and doctors	See replies to my queries	High	1	Done
6	4	Customer	Easily enter and update my insurance information online	Ensure accurate billing and avoid claim denials	High	1	Done
7	5	Customer	Acces, download and upload my bills or any important PDFs	Easily track all my records in a compiled form	High	1	Done
8	6	Administration	Enter patient information such as name, date of birth, and insurance details	Ensure accurate record keeping and billing processes	High	1	Done
9	7	Administration	Verify insurance eligibility and coverage for patients	Ensure proper billing and reimbursement	High	1	Done
10	8	Administration	Generate and send electronic claims to insurance companies	Expedite payment processing and reduce administrative burden	High	1	Done
11	9	Customer	Receive email notifications for upcoming payments	Stay informed about billing deadlines	Medium	1	Done
12	10	Customer	Set up automatic payment options	Simplify the payment process and avoid late fees	Medium	2	Done
13	11	Administration	Track outstanding claims and follow up on unpaid invoices	Improve revenue cycle management and cash flow	Medium	2	Done
14	12	Administration	Generate detailed billing reports for financial analysis	Evaluate performance and identify areas for improvement	Medium	2	Done
15	13	Customer	View explanations of benefits (EOBs) online	Understand insurance coverage and billing details	Medium	2	Done
16	14	Customer	Submit billing inquiries or disputes online	Resolve billing issues efficiently	High	2	Done
17	15	Administration	Integrate with Electronic Health Record (EHR) systems	Streamline data entry and minimize errors	High	3	In Progress
18	16	Administration	Receive real-time updates on claim statuses from insurance companies	Monitor claim progress and resolve issues promptly	Medium	3	In Progress
19	17	Customer	Provide feedback on billing experiences through online surveys	Help improve billing processes and customer satisfaction	Medium	3	To be started
20	18	Customer	Access historical billing data and invoices online	Keep track of past payments and expenses	Medium	3	To be started
21	19	Customer	Access billing support resources and FAQs online	Find answers to common billing questions easily	Low	4	To be started
22	20	Customer	Receive personalized billing assistance from customer service representatives	Resolve complex billing issues with expert help	High	4	To be started
23	21	Administration	Customize billing templates for different specialties and procedures	Tailor billing processes to specific practice needs	Low	4	To be started
24	22	Administration	Utilize coding assistance tools for accurate code selection	Ensure compliance with coding standards and maximize reimbursement	High	4	To be started
25	23	Administration	Implement automated payment posting from insurance companies	Reduce manual data entry and improve efficiency	Medium	5	To be started



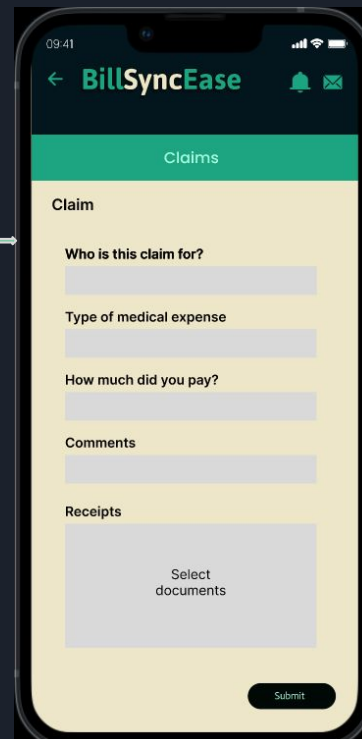
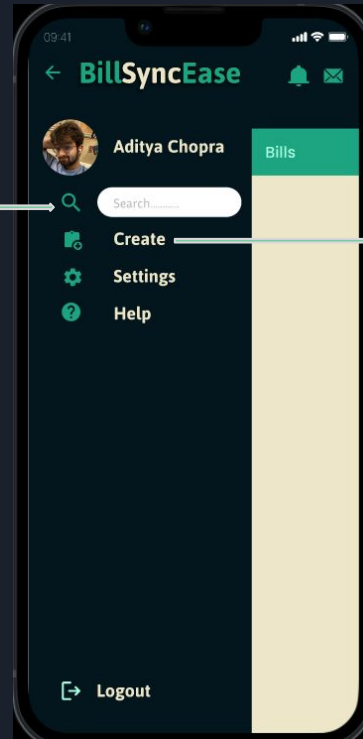
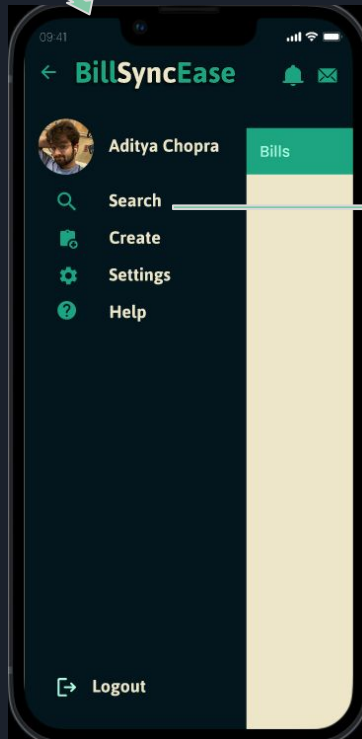
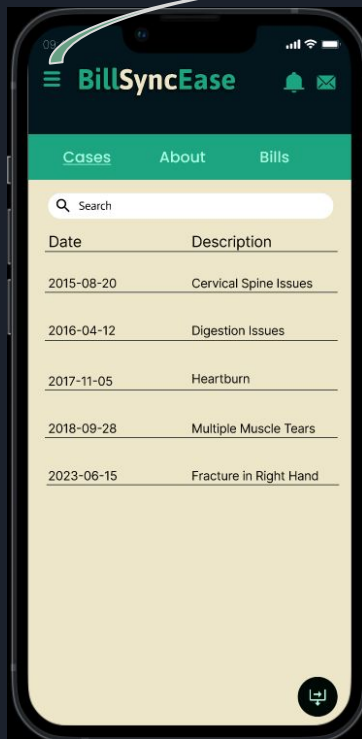
# Prototype



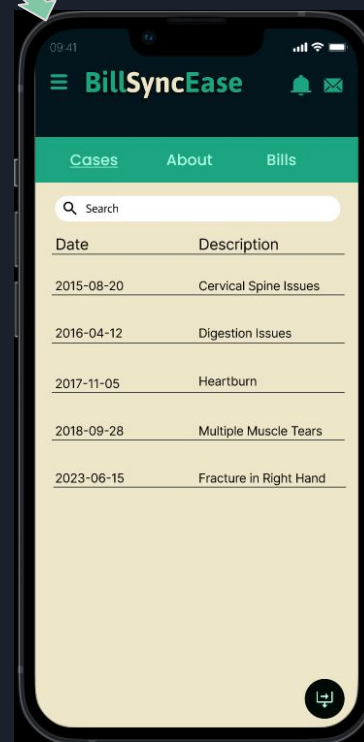
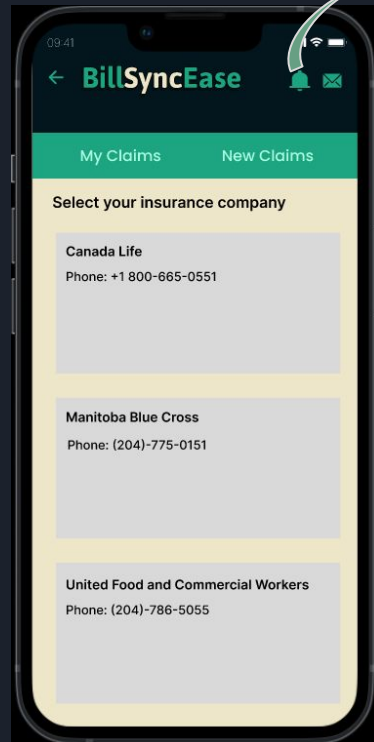
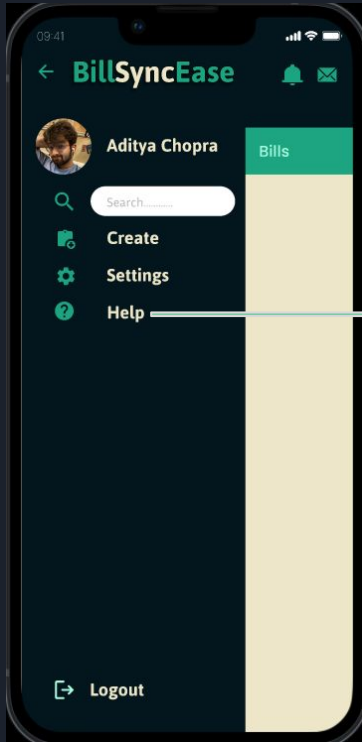
# Prototype 2/5



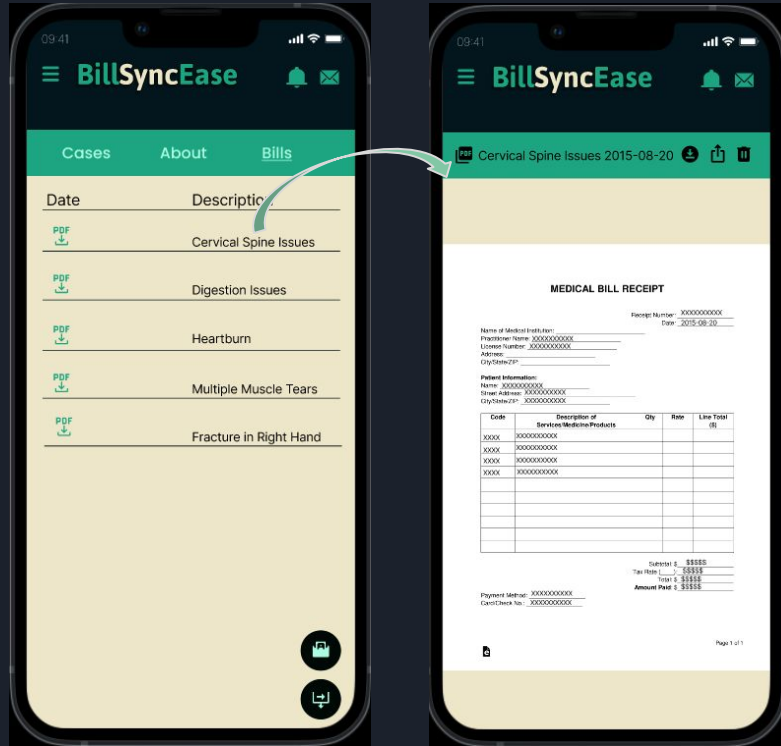
# Prototype 3/5



# Prototype 4/5



# Prototype 5/5



More coming Soon.....