“Il semble que la perfection soit atteinte non quand il n’y a plus rien à ajouter, mais quand il n’y a plus rien à retrancher”

- Antoine de Saint-Exupéry

AAOS Project for ACME Insurance Solutions

420-436-VA: Deliverable 5

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Executive Overview 4
Revised Summary Narrative Description 4
Business Problem 4
Usability Principles and Guidelines 5
Simplicity and Clarity 5
Consistency 5
Visibility of System Status 5
User Control and Freedom 5
Error Prevention 5
Flexibility and Efficiency of Use 5
Help and Documentation 5
Minimize Load 5
Accessibility 5
Feedback and Confirmation 6
References 6
Prototype Interfaces 7
Client Comments 14
How we reached our client 14
Comments on first prototype 14
Comments on second prototype 14
Changes between prototypes 15
Second Prototype HTML Pages 15
Appendix 1 19
User Stories for Admins 19
User Stories for Users 20
Test Scenarios 21
Changes Following Deliverable 4 37

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Appendix 2..... 38

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Executive Overview

Team AAOS is developing a web application for ACME Insurance Solutions' health insurance department to streamline claim submission and review processes. The project aims to enhance operational efficiency and improve customer satisfaction by addressing challenges associated with manual claim processing.

Revised Summary Narrative Description

The project remains focused on enhancing ACME's operational efficiency and customer experience by streamlining claim submission and review processes. We have removed the goal of analyzing claim processing metrics to identify bottlenecks and areas for improvement. Instead, several new features have been added: Admins can now track the status of each claim in real-time, automate routine tasks such as data entry, archive historical claims, provide self-service tools for customers to track claim progress, conduct user satisfaction surveys to gather feedback, implement role-based access controls, deploy an AI-powered chatbot for assistance, streamline the process of onboarding new claimants, and conduct regular reviews of claim processing procedures for updates. Additionally, users can now receive notifications about important updates or changes in the system, easily request policy endorsements or modifications online, receive proactive alerts about potential risks or changes in their coverage, access a virtual assistant or FAQ bot for assistance, enroll in automatic premium payments, submit feedback or complaints, utilize a user-friendly interface that guides them through the process, receive notifications about potential discounts or savings, and access a knowledge base of articles and resources related to insurance claims. These comprehensive additions aim to provide users with a seamless and efficient experience while interacting with ACME's insurance services.

Business Problem

The business problem that the new system will resolve is the time-consuming and error-prone manual process of claim submission and review. This process leads to delays in processing and customer dissatisfaction. The new system aims to improve efficiency while maintaining accuracy to enhance the overall customer experience.

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Usability Principles and Guidelines

Simplicity and Clarity

The interface will be kept simple and clear, guiding users through the process without overwhelming them. **(Nielsen Norman Group)**

Consistency

Consistent design elements will be maintained throughout the application to minimize load. **(Usability.gov)**

Visibility of System Status

Clear feedback will be provided to users about the status of their actions. **(Interaction Design Foundation)**

User Control and Freedom

Users will have the ability to navigate back and forth within the application easily. **(Usability.gov)**

Error Prevention

Validation checks will be implemented to prevent errors during claim submission. **(Nielsen Norman Group)**

Flexibility and Efficiency of Use

The application will accommodate both novice and expert users. **(ISO 9241-11:2018)**

Help and Documentation

Easily accessible help resources will be provided to assist users in understanding complex processes. **(Interaction Design Foundation)**

Minimize Load

Information will be presented in digestible chunks to avoid information overload. **(Nielsen Norman Group)**

Accessibility

The application will adhere to WCAG standards for accessibility. **(Web Accessibility Initiative)**

Feedback and Confirmation

Immediate feedback will be provided to users upon completing actions. **(Usability.gov)**

References

Nielsen Norman Group. (https://www.nngroup.com/)

Usability.gov. (https://www.usability.gov/)

Interaction Design Foundation. (https://www.interaction-design.org/)

ISO 9241-11:2018 - Ergonomics of human-system interaction

Web Accessibility Initiative. (https://www.w3.org/WAI/test-evaluate/)

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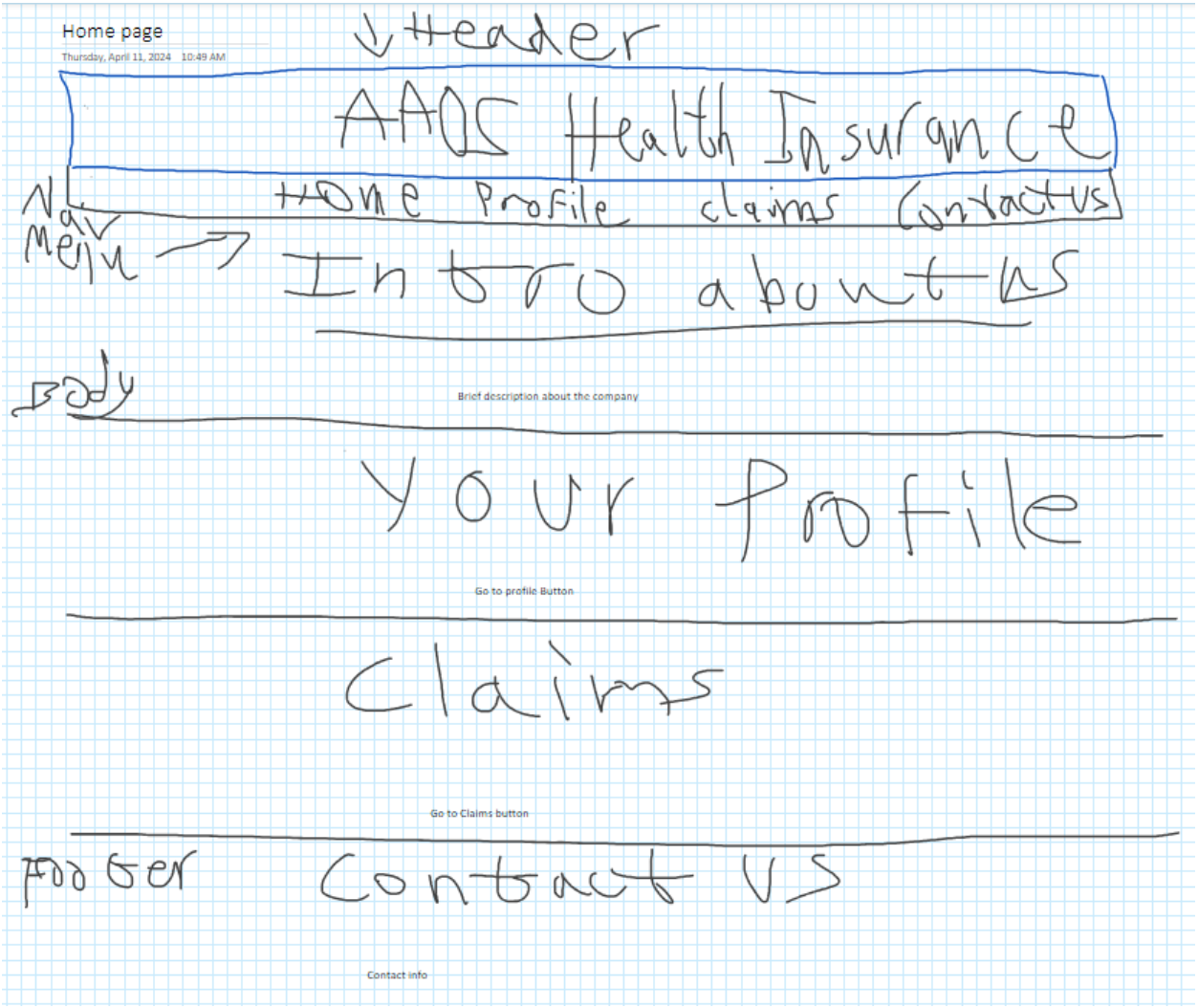
Prototype Interfaces

Home Page:



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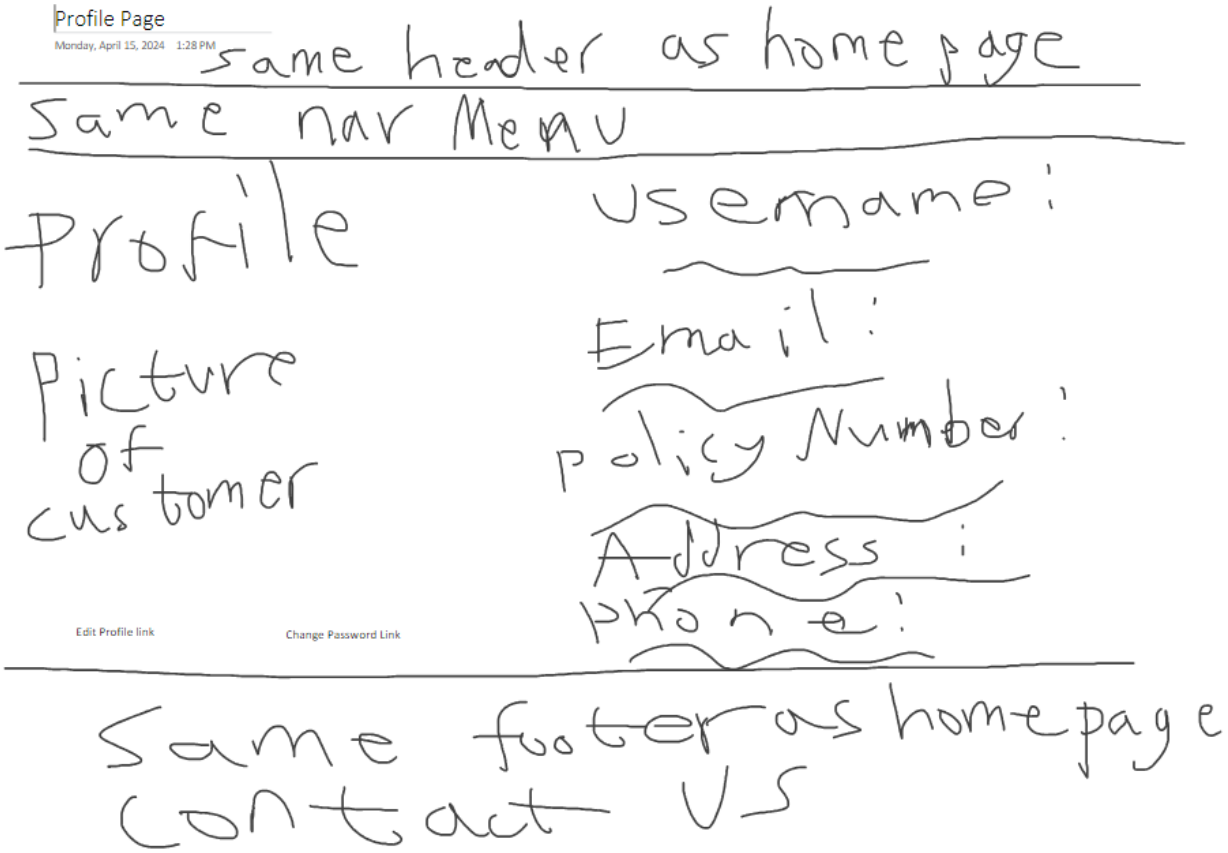
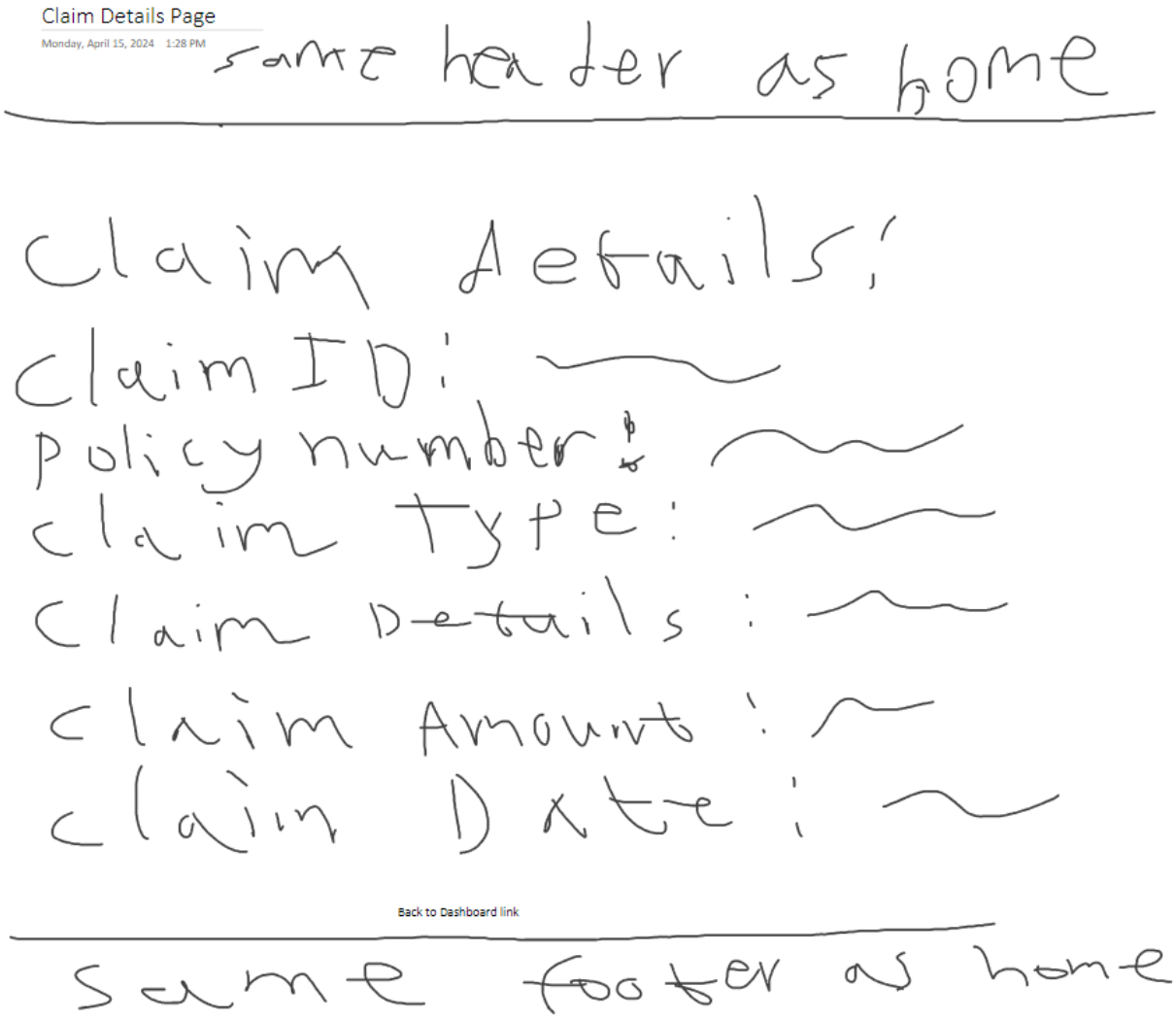
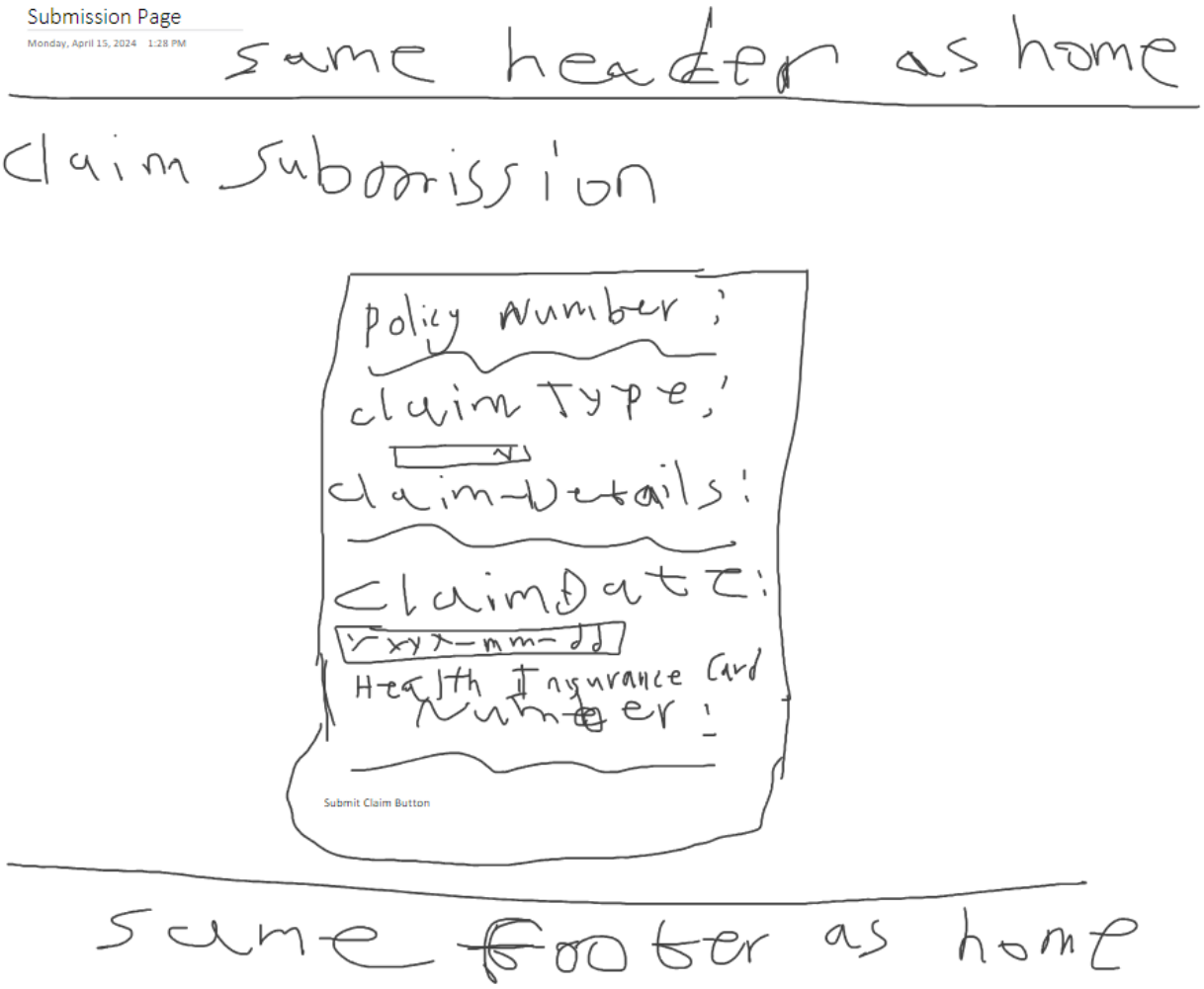
Profile Page:



Claim Details Page:



Claim Submission Page:



“Il semble que la perfection soit atteinte non quand il n’y a plus rien à ajouter, mais quand il n’y a plus rien à retrancher”

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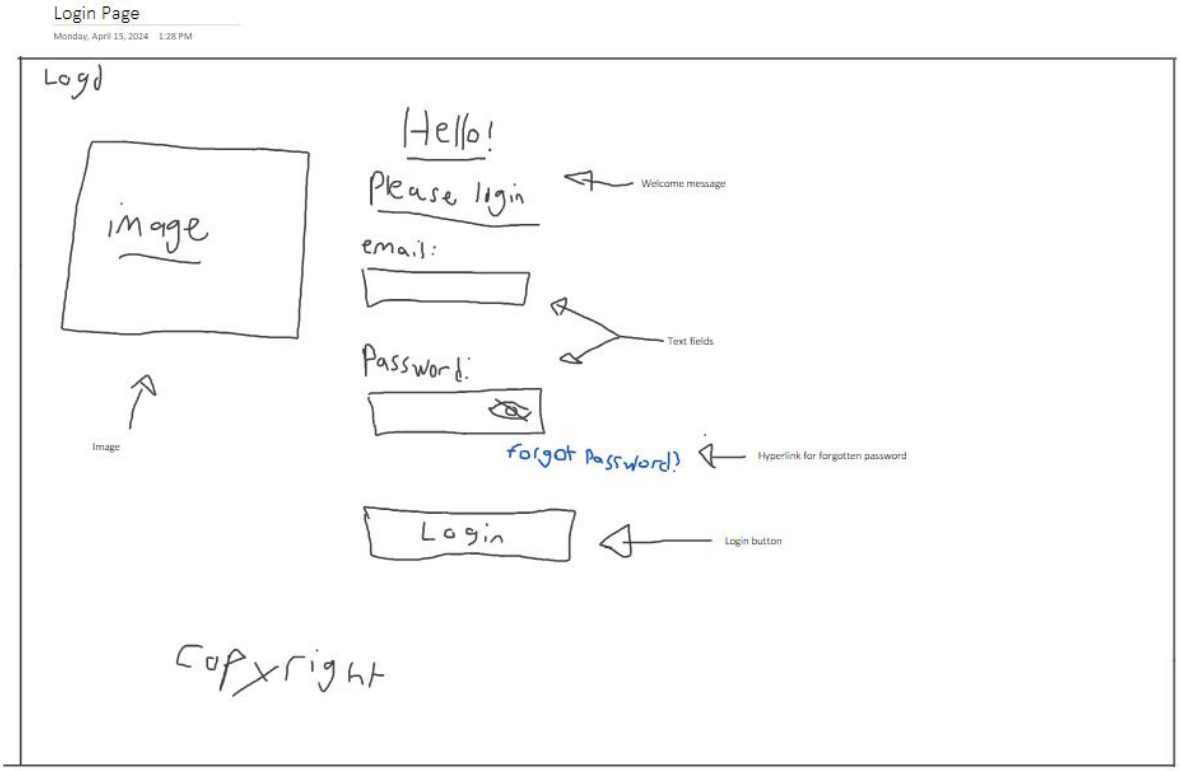
Login Page:



“Il semble que la perfection soit atteinte non quand il n’y a plus rien à ajouter, mais quand il n’y a plus rien à retrancher”

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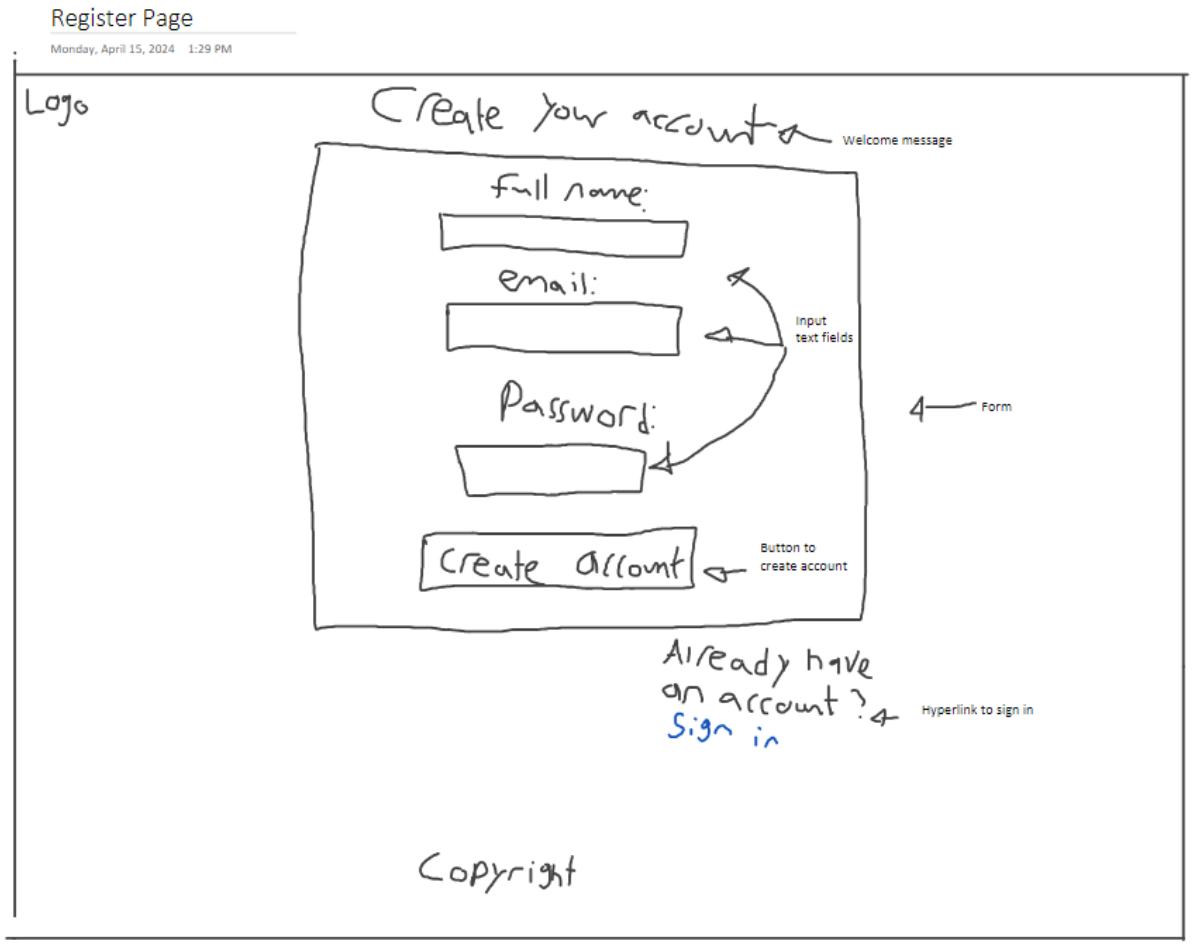
Register Page:



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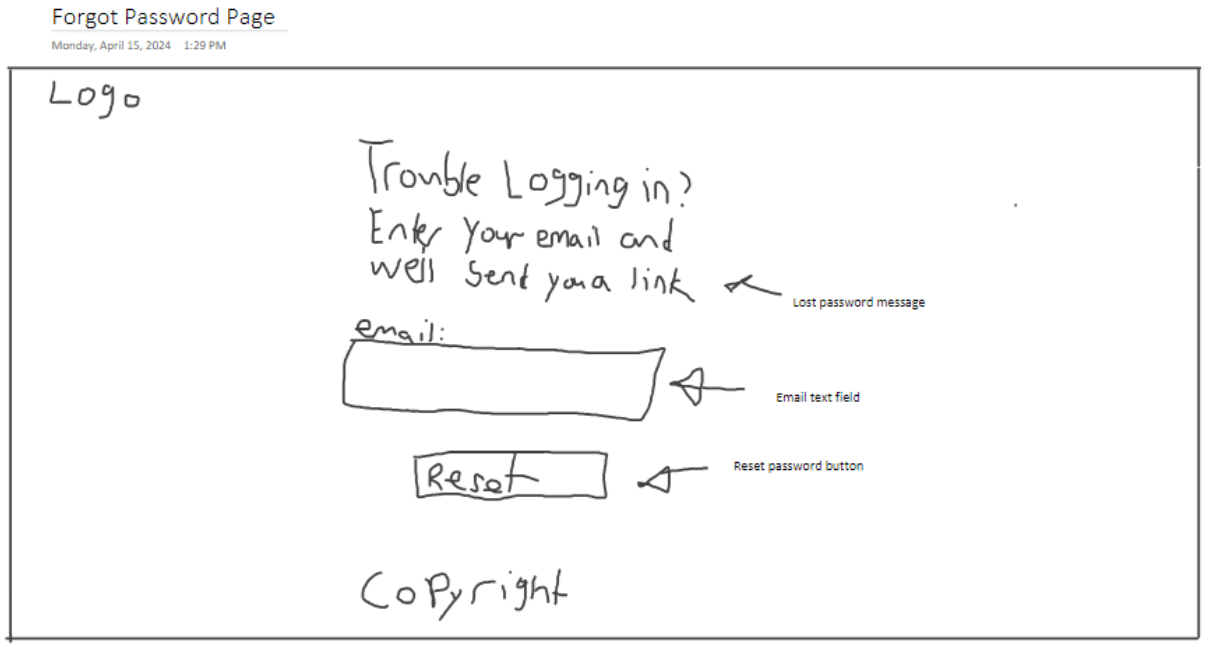
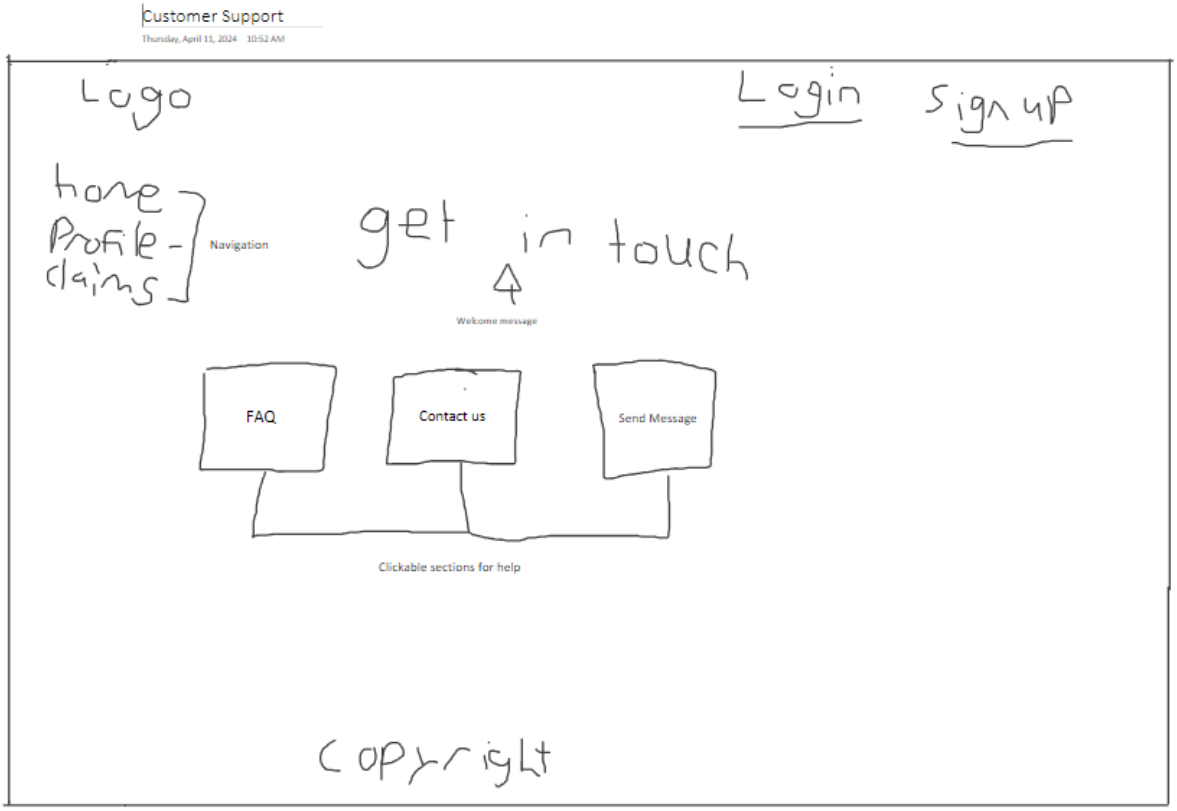
Forgot Password Page:



Customer Support Page:



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Client Comments

How we reached our client

The interaction with the client primarily occurred via video conferencing through Zoom sessions. These sessions allowed for real-time discussions where the client could share their feedback, concerns, and suggestions regarding the various aspects of the project. This approach facilitated direct and immediate communication, ensuring that any issues or questions could be addressed promptly and effectively.

Comments on first prototype

The client mentioned that the login screen appears functional and ready for use, providing a positive first impression. However, they expressed concern about the registration process, noting missing text fields and essential details, which could hinder the smooth sign-up process. As for the forgotten password feature, they found it to be perfect, requiring no improvements. In terms of customer support, the client suggested having a FAQ section and a "Contact Us" option visibly displayed on the side for easier access, indicating a desire for enhanced user support options.

Moving on to the claim details, the client found the presentation clear and concise, facilitating understanding. However, they found the home page cluttered, suggesting a need for better organization and prioritization of content. Additionally, they mentioned that the profile page is missing some key features to fully get the full experience. On the bright side, they noted that the submission claim visually looks okay.

Comments on second prototype

From the client's perspective, the login page displays professionalism and features a user-friendly design, ensuring a seamless login process. Additionally, the customer support contact page stands out with its visible FAQ section and contact information, enhancing user accessibility and support options. Furthermore, the simple yet effective design of the footer across all pages maintains consistency and professionalism throughout the website. Overall, these visual elements contribute positively to the user experience, though there's room for improvement in organizing the home page and enhancing features on the profile page.

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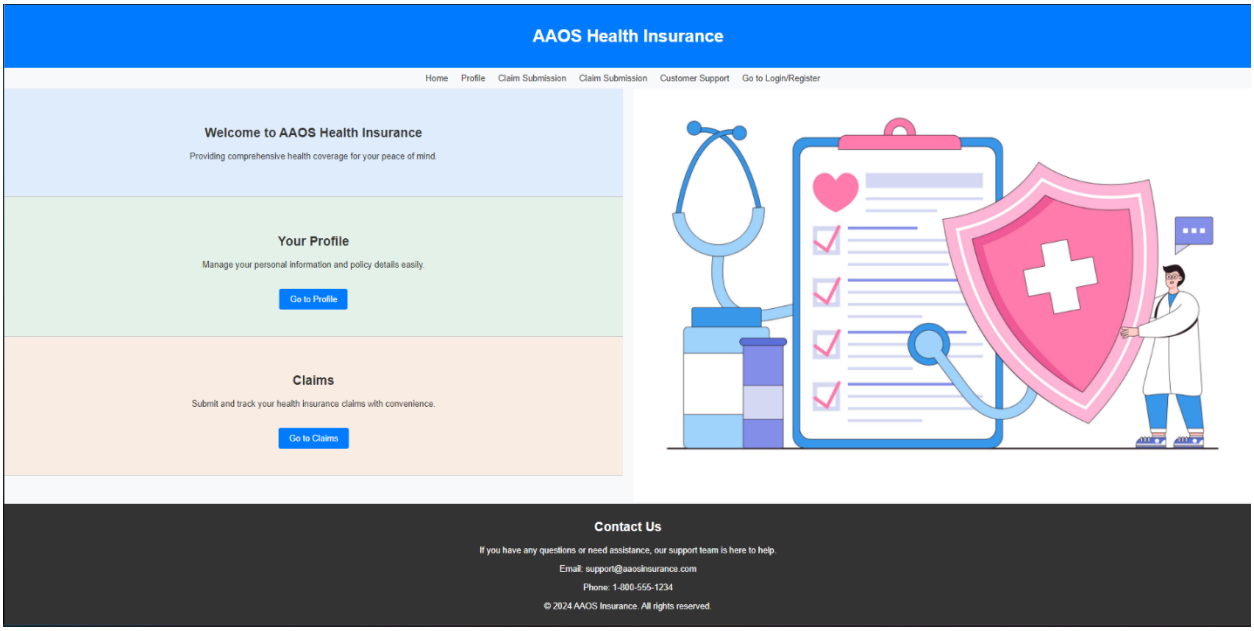
Changes between prototypes

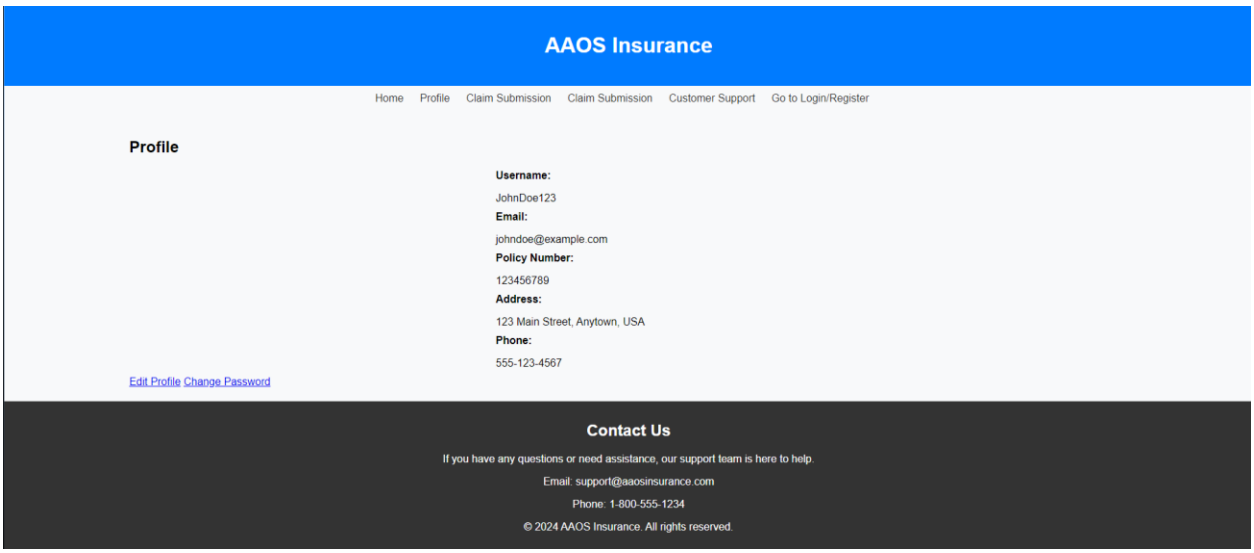
Second Prototype HTML Pages

Home Page:



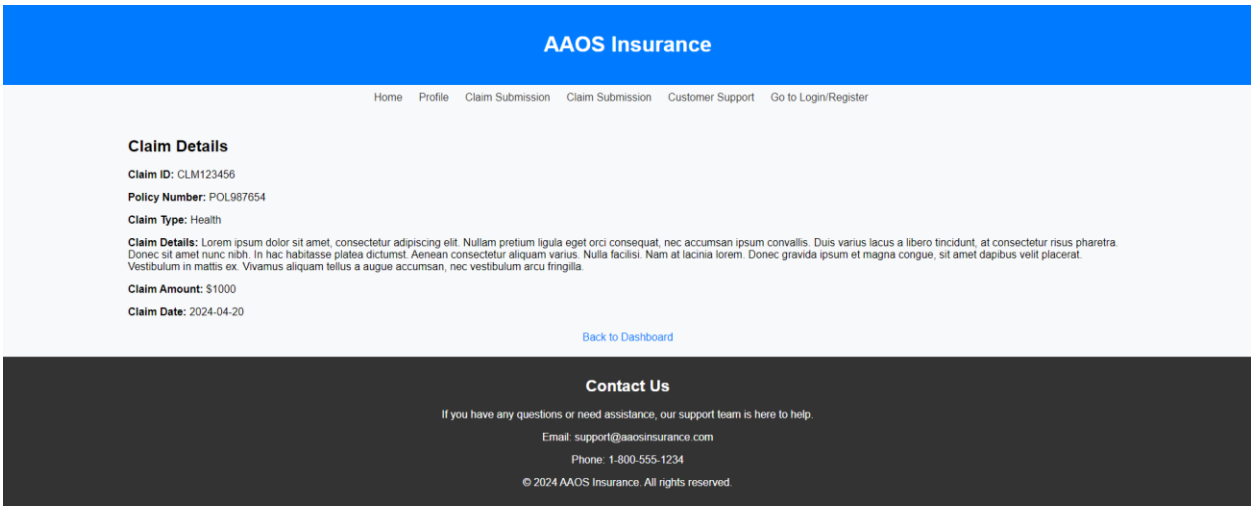
Changes: The client wanted to add some nice looks to the home page since it will be the first page the customers will see. He demanded a nice banner, also some light colors to separate the sections, and so we did what he asked.

Profile Page:



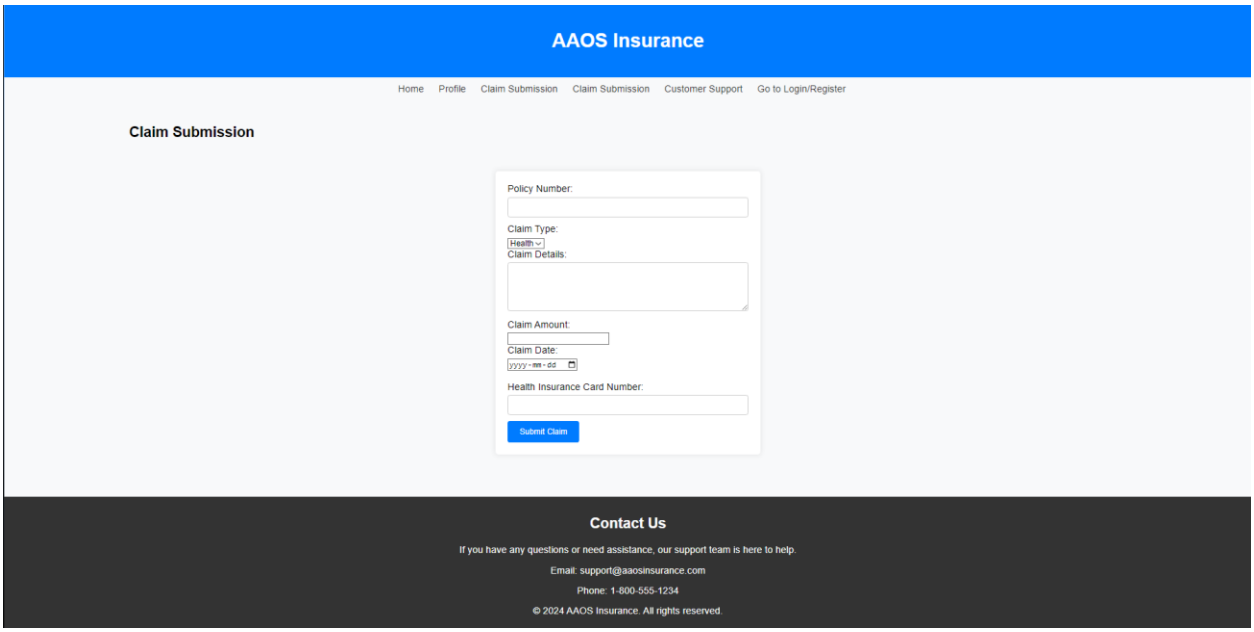
Changes: For the profile page there was not much change needed, the client just wanted to add some spacing between the profile picture and the profile information.

Claim Details Page:



Changes: For the Claim Details page there was not much change needed, the client just wanted to add some spacing between the texts, He also wanted the same navigation menu as the home page.

Claim Submission Page:



Changes: For the Claim Submission page there was not much change needed, the client just wanted to add some spacing between the texts and fields, He also wanted the same navigation menu as the home page. Banner image will be added later

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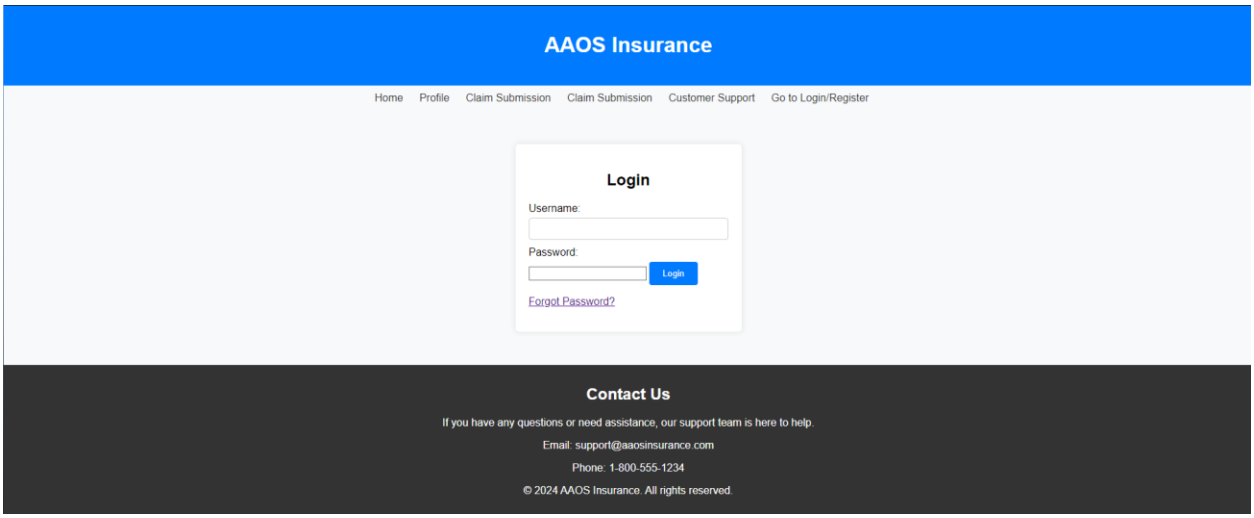
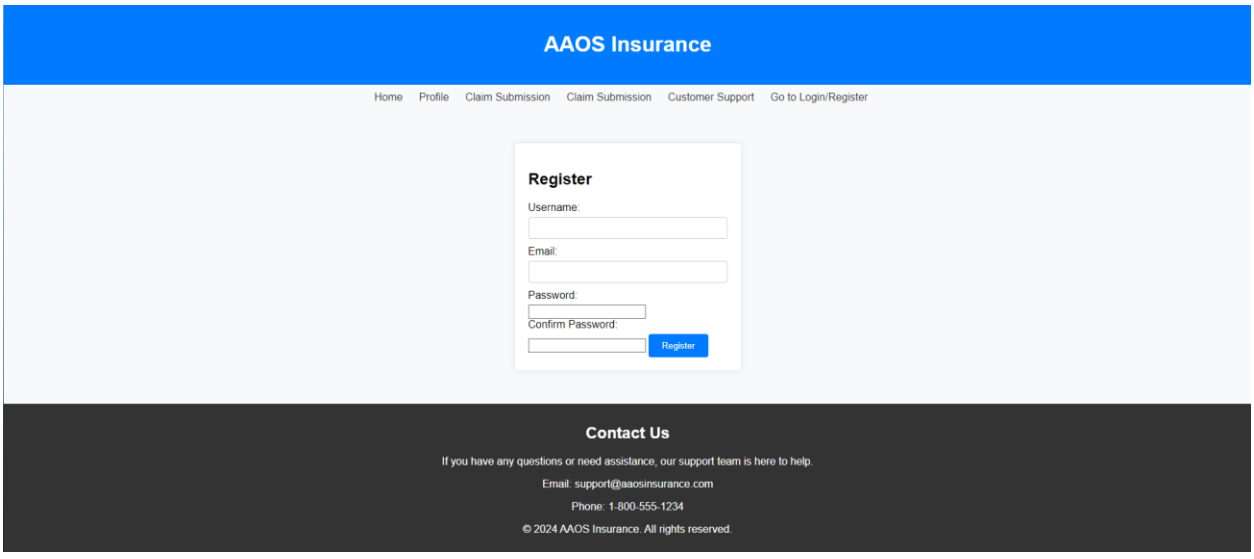
Login Page:



Changes: For the Login page there was not much change needed, the client just wanted to add a box form for the login and some spacing between the texts and fields, He also wanted the same navigation menu as the home page. Banner image will be added later

Register Page:



Changes: For the Register page there was not much change needed, the client just wanted to add a confirm password field and some spacing between the texts and fields, He also wanted the same navigation menu as the home page. Instead of asking if the customer already has an account, the client wanted to just put a Register button.

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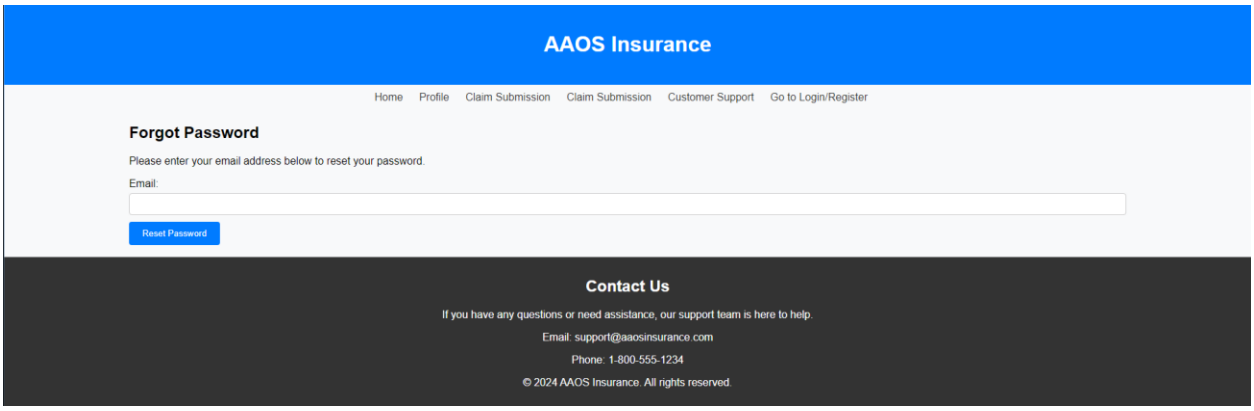
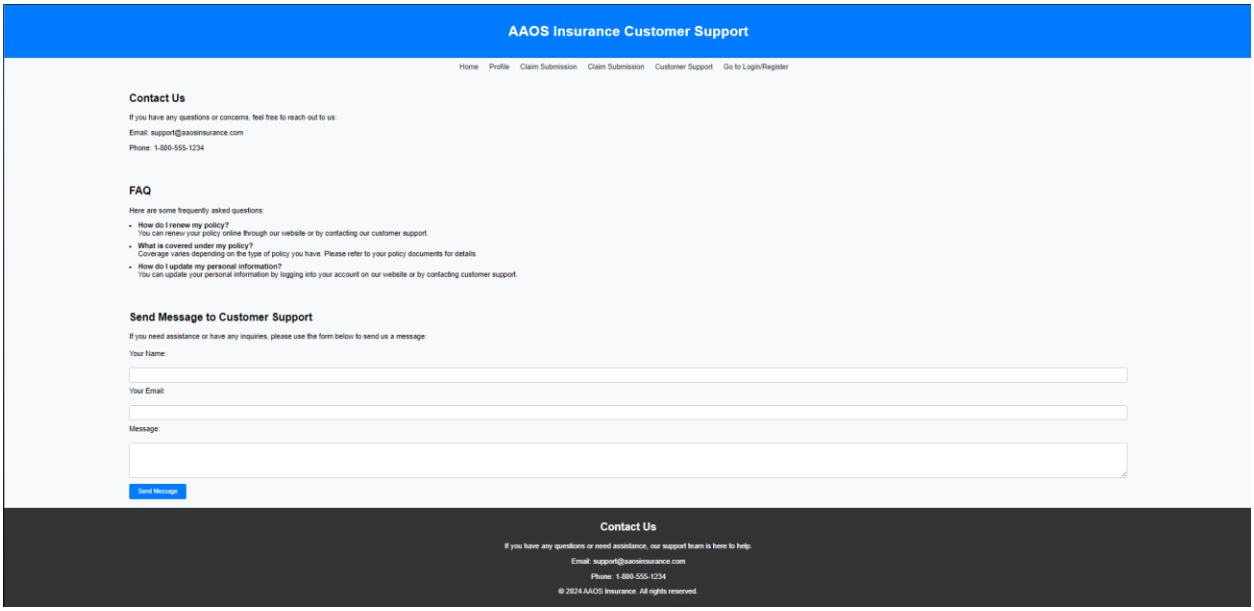
Forgot Password Page:



Changes: For the Forgot Password page there was not much change needed, the client just wanted to add some spacing between the texts and fields, He also wanted the same navigation menu as the home page.

Customer Support Page:



Changes: For the Customer Support page, as we were trying a different approach of design, the client was not pleased, and requested to keep the same simplistic design we had for the other pages as this will make the website more practical for Customers.

Note: This is not the final design for all the pages, there will be certain improvements added as we go; like adding some background pictures or background colors, to enhance the look and feel of the website.

Appendix 1

User Stories for Admins

As an admin, I want to be able to log in securely to the system.

As an admin, I want to review submitted claim documents for completeness and accuracy.

As an admin, I want to request additional information from customers if necessary.

As an admin, I want to have the ability to approve or deny claims based on policy criteria.

As an admin, I want to generate payments for approved claims accurately and efficiently.

As an admin, I want to categorize claims based on urgency and priority for streamlined processing.

As an admin, I want to assign claims to specific processors or teams for efficient handling.

As an admin, I want to track the status of each claim in real-time to ensure timely resolution.

As an admin, I can view a claim and all associated interactions and add audit results.

As an admin, I want to automate routine tasks in claim processing, such as data entry or document verification, to improve efficiency.

As an admin, I want to archive historical claims data securely for regulatory compliance and future reference purposes.

As an admin, I want to provide self-service tools for customers to track the progress of their claims and upload additional documents as needed.

As an admin, I want to conduct regular user satisfaction surveys to gather feedback and identify areas for improving the claims processing experience.

As an admin, I want to implement role-based access controls to ensure that only authorized personnel can access sensitive claims data.

As an admin, I want to integrate AI-powered chatbots to assist users with frequently asked questions and reduce the workload on customer support staff.

As an admin, I want to streamline the process of onboarding new claimants by providing pre-filled forms and guided submission instructions.

As an admin, I want to conduct regular reviews of claim processing procedures and update them as needed to adapt to changing business requirements.

User Stories for Users

As a user, I want to log in securely to access the system.

As a user, I want to submit claim documents easily through the web application.

As a user, I want to receive timely updates on the status of my submitted claim via email or SMS.

As a user, I want to view the history of my past claims and their statuses.

As a user, I want to be able to contact customer support for assistance with my claim through ticket support on the website.

As a user, I want to reset my password if I forget it securely through email verification.

As a user, I want to update my profile information if needed, such as contact details or address.

As a user, I want to receive notifications about important updates or changes in the system, such as policy revisions or system maintenance.

As a user, I want to access help documentation or tutorials to understand how to use the system effectively, including FAQs and user guides.

As a user, I want to easily request policy endorsements or modifications online without having to fill out lengthy paperwork.

As a user, I want to receive proactive alerts about potential risks or changes in my coverage that may affect my policy.

As a user, I want to have access to a virtual assistant or FAQ bot that can provide instant answers to common insurance-related queries.

As a user, I want to have the option to enroll in automatic premium payments to avoid the risk of policy lapses.

As a user, I want to be able to submit feedback or complaints regarding my claims experience directly through the web application.

As a user, I want to have access to a user-friendly interface that guides me through the claim's submission process step-by-step.

As a user, I want to receive notifications about potential discounts or savings opportunities.

As a user, I want to have access to a knowledge base of articles and resources related to insurance claims, coverage options, and industry news.

Test Scenarios

Feature: Admin Login

In order to access the system securely

As an admin

I need to log in with valid credentials

Scenario: Successful login with valid credentials

Given I am on the login page

When I enter valid admin credentials

And click Login

Then I should be logged in and directed to the dashboard

Scenario: Failed login with invalid credentials

Given I am on the login page

When I enter invalid admin credentials

And click Login

Then I should see an error message indicating invalid credentials

Feature: Review Claim Documents

In order to ensure completeness and accuracy of claim documents

As an admin

I need to review submitted claim documents

Scenario: Reviewing claim documents

Given I am logged into the system

When I navigate to the claims review section

Then I should be able to view submitted claim documents

Scenario: Providing feedback on claim documents

Given I am reviewing claim documents

When I identify missing or inaccurate information

And request additional information from the customer

Then the customer should be notified to provide the necessary documentation

Feature: Approve or Deny Claims

In order to ensure compliance with policy criteria

As an admin

I need to approve or deny claims

Scenario: Approving a claim

Given I review a submitted claim

When the claim meets all policy criteria

Then I should be able to approve the claim

Scenario: Denying a claim

Given I review a submitted claim

When the claim does not meet policy criteria

Then I should be able to deny the claim

Feature: Generate Payments

In order to process approved claims accurately and efficiently

As an admin

I need to generate payments for approved claims

Scenario: Generating payment for an approved claim

Given I approve a claim

When the payment generation process is initiated

Then the payment should be generated accurately and efficiently

Feature: Categorize Claims

In order to streamline processing workflow

As an admin

I need to categorize claims based on urgency and priority

Scenario: Categorizing claims

Given I review a claim

When I categorize the claim based on urgency and priority

Then the claim should be prioritized accordingly for processing

Feature: Assign Claims

In order to ensure efficient handling and resolution

As an admin

I need to assign claims to specific processors or teams

Scenario: Assigning claims to processors or teams

Given I review a claim

When I assign the claim to a specific processor or team

Then the claim should be routed to the designated entity for processing

Feature: Track Claim Status

In order to ensure timely resolution

As an admin

I need to track the status of each claim in real-time

Scenario: Tracking claim status

Given I am logged into the system

When I navigate to the claim status tracking page

Then I should be able to view the real-time status of all claims

Feature: View Claim Interactions and Add Audit Results

In order to maintain comprehensive records and ensure compliance

As an admin

I need to view a claim and all associated interactions, and add audit results

Scenario: Viewing a claim and associated interactions

Given I am logged into the system

When I view a specific claim and its interactions

Then I should see all associated details and interactions

Scenario: Adding audit results to a claim

Given I am viewing a specific claim

When I add audit results to the claim

Then the audit results should be saved and associated with the claim

Feature: Request Additional Information

In order to complete claim processing

As an admin

I need to request additional information from customers

Scenario: Requesting additional information

Given I identify missing or unclear information in submitted claim documents

When I request additional information from the customer

Then the customer should be notified to provide the necessary documentation

Feature: Automate Routine Tasks

In order to improve efficiency in claim processing

As an admin

I need to automate routine tasks such as data entry or document verification

Scenario: Automating data entry

Given I am processing a claim

When I encounter fields with standard data that can be automatically filled

Then the system should automatically populate these fields to reduce manual data entry

Scenario: Automating document verification

Given I am verifying claim documents

When I identify standard verification procedures for certain types of documents

Then the system should automatically verify these documents based on predefined criteria

Feature: Archive Historical Claims Data

In order to comply with regulations and facilitate future reference

As an admin

I need to securely archive historical claims data

Scenario: Archiving historical claims data

Given I am logged into the system as an admin

When I access the archive feature

Then I should be able to securely archive historical claims data

Feature: Self-Service Tools for Claim Tracking and Document Upload

In order to empower customers and streamline claim management

As an admin

I need to provide self-service tools for claim tracking and document upload

Scenario: Tracking claim progress

Given I am a logged-in customer

When I navigate to the claim tracking section

Then I should be able to view the progress of my claims

Scenario: Uploading additional documents

Given I am a logged-in customer

When I access my claim details

And upload additional documents

Then the documents should be successfully added to my claim

Feature: User Satisfaction Surveys

In order to gather feedback and improve claims processing

As an admin

I need to conduct regular user satisfaction surveys

Scenario: Conducting user satisfaction survey

Given I am logged into the admin panel

When I initiate a user satisfaction survey

Then customers should receive the survey and provide feedback

Feature: Role-Based Access Controls

In order to protect sensitive data

As an admin

I need to implement role-based access controls

Scenario: Setting up role-based access controls

Given I am logged into the admin panel

When I configure access controls for different roles

Then only authorized personnel should access sensitive claims data

Feature: AI-Powered Chatbots Integration

In order to provide efficient support and reduce workload

As an admin

I need to integrate AI-powered chatbots

Scenario: Chatbot assisting with FAQs

Given I am on the website

When I interact with the AI chatbot

Then it should provide helpful responses to frequently asked questions

Feature: Streamlined Onboarding Process

In order to improve efficiency in onboarding new claimants

As an admin

I need to provide pre-filled forms and guided submission instructions

Scenario: Onboarding new claimants

Given a new claimant accesses the onboarding process

When they follow the guided instructions

Then they should be able to submit their claim easily

Feature: Claim Processing Procedure Reviews

In order to adapt to changing requirements

As an admin

I need to conduct regular reviews of claim processing procedures

Scenario: Reviewing claim processing procedures

Given I am logged into the admin panel

When I review the current claim processing procedures

Then I should be able to identify areas for improvement and updates

Feature: Secure User Login

In order to access the system securely

As a user

I need to log in with valid credentials

Scenario: Successful login with valid credentials

Given I am on the login page

When I enter valid user credentials

And click Login

Then I should be logged in and directed to the dashboard

Scenario: Failed login with invalid credentials

Given I am on the login page

When I enter invalid user credentials

And click Login

Then I should see an error message indicating invalid credentials

Feature: Easy Claim Document Submission

In order to submit claim documents conveniently

As a user

I need to be able to upload documents through the web application

Scenario: Uploading claim documents

Given I am logged into the system as a user

When I navigate to the claim submission section

And upload required documents

Then the documents should be successfully submitted with the claim

Feature: Claim Status Updates

In order to stay informed about my claim status

As a user

I need to receive updates via email or SMS

Scenario: Receiving claim status updates

Given I have submitted a claim

When there is a status change in my claim

Then I should receive an email or SMS notification with the updated status

Feature: Viewing Claim History

In order to track my past claims

As a user

I need to view the history of my claims and their statuses

Scenario: Viewing claim history

Given I am logged into the system as a user

When I navigate to the claim history section

Then I should see a list of my past claims with their statuses

Feature: Contacting Customer Support

In order to get assistance with my claim

As a user

I need to contact customer support through ticket support

Scenario: Contacting customer support

Given I am logged into the system as a user

When I navigate to the support section

And submit a support ticket for my claim

Then customer support should respond to my query

Feature: Password Reset

In order to recover my account

As a user

I need to reset my password securely through email verification

Scenario: Resetting password via email

Given I have forgotten my password

When I request a password reset

Then I should receive an email with instructions to reset my password

Feature: Profile Information Update

In order to keep my profile information up to date

As a user

I need to update my contact details or address if needed

Scenario: Updating profile information

Given I am logged into the system as a user

When I navigate to the profile settings

And update my contact details or address

Then my profile information should be successfully updated

Feature: System Notifications

In order to stay informed about system updates

As a user

I need to receive notifications about important changes

Scenario: Receiving system notifications

Given there is an important update or change in the system

Then I should receive a notification via email or in-app notification

Feature: Accessing Help Documentation

In order to understand how to use the system effectively

As a user

I need access to help documentation and tutorials

Scenario: Accessing help documentation

Given I am logged into the system as a user

When I navigate to the help section

Then I should be able to access FAQs, user guides, and tutorials

Feature: Online Policy Endorsements

In order to request policy endorsements or modifications conveniently

As a user

I need to be able to do so online without lengthy paperwork

Scenario: Requesting policy endorsements online

Given I am logged into the system as a user

When I navigate to the policy endorsements section

And request an endorsement or modification

Then my request should be processed without requiring extensive paperwork

Feature: Proactive Risk Alerts

In order to stay informed about potential risks or changes in coverage

As a user

I need to receive proactive alerts

Scenario: Receiving proactive risk alerts

Given there is a potential risk or change in coverage

Then I should receive a proactive alert via email or in-app notification

Feature: Virtual Assistant/FAQ Bot

In order to get instant answers to common queries

As a user

I need access to a virtual assistant or FAQ bot

Scenario: Interacting with the virtual assistant/FAQ bot

Given I am on the website

When I interact with the virtual assistant/FAQ bot

Then it should provide instant answers to my queries

Feature: Automatic Premium Payments Enrollment

In order to avoid policy lapses

As a user

I need the option to enroll in automatic premium payments

Scenario: Enrolling in automatic premium payments

Given I am logged into the system as a user

When I navigate to the payment settings

And enroll in automatic premium payments

Then my payments should be automatically processed to avoid policy lapses

Feature: Submitting Feedback or Complaints

In order to provide feedback or complaints

As a user

I need to be able to do so directly through the web application

Scenario: Submitting feedback or complaints

Given I am logged into the system as a user

When I navigate to the feedback/complaints section

And submit my feedback or complaint

Then it should be recorded and addressed by the appropriate team

Feature: User-Friendly Claim Submission Interface

In order to submit claims easily

As a user

I need a user-friendly interface that guides me through the process

Scenario: Using the user-friendly interface for claim submission

Given I am logged into the system as a user

When I navigate to the claim submission section

And follow the step-by-step instructions

Then I should be able to submit my claim without difficulties

Feature: Discount/Savings Notifications

In order to take advantage of discounts or savings opportunities

As a user

I need to receive notifications about them

Scenario: Receiving discount/savings notifications

Given there is a potential discount or savings opportunity

Then I should receive a notification via email or in-app notification

Feature: Accessing Knowledge Base

In order to access information about insurance

As a user

I need access to a knowledge base of articles and resources

Scenario: Accessing the knowledge base

Given I am logged into the system as a user

When I navigate to the knowledge base section

Then I should be able to access articles and resources about insurance claims, coverage options, and industry news

Changes Following Deliverable 4

Added multiple user stories for completion/coverage of the features, and their accompanying scenarios.

“Il semble que la perfection soit atteinte non quand il n’y a plus rien à ajouter, mais quand il n’y a plus rien à retrancher”

- Antoine de Saint-Exupéry

Appendix 2

Revised story map

Changes made:

multiple new user stories were added after deliverable 4. Below you will find all the stories that were added:

- Claim Processing Reviews
- Automate Routine tasks
- Archive Historical Claims data
- Role Based Access Controls

- Access customer support
- Streamlined Onboarding Process
- Online Policy endorsement
- Access to knowledge base
- Ai powered chatbot
- Virtual Assistant/FAQ bot
- Automatic payment enrollment
- User satisfaction survey
- Self-service tool for uploading document
- Submit review and complaints