

SCALABLE CERTIFICATE GENERATOR PROJECT

Course: Software Principles
Module Code:
Student ID:
Team Name:

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Task Allocations

Student	Task	Completed?
	Wireframe Use Case Diagram Flowcharts Prototypes Cover Page	Y Y Y Y Y
	Usability Navigation maps Flowcharts Evaluation Prototypes Mood Board	Y Y Y Y Y Y
Aleks	Use Case Diagram Pseudocode Trace tables Evaluation	Y Y Y Y

Project Introduction

Our project is based on the need for efficient and automated solutions; therefore, The Certificate Generator Application is designed to simplify the creation and distribution of the certificates, offering a versatile and user-friendly tool for various applications.

The Certificate Generator Application lets the user swiftly and effortlessly generate certificates for many purposes. Whether it be for academic achievements, professional certifications, or event participation, this project streamlines the often-tedious process of certificates creation.

It also automates the certificate generation process to reduce manual workload and minimise errors while providing a visually appealing and a user-friendly approach.

Project Requirements

This section of our presentation will introduce the different requirements and the set conditions that are to be met by our team provided by the Track Genesis Team to ensure that we meet their needs. This will provide us with an overview of what is needed to be done next, and the steps that we should follow to ensure the success of the project. This will outline some of the problems and solutions that we have concluded.

After reading the assignment brief, we determined that the program should be both effortless and efficient to use for customers with different levels of technology expertise, requiring minimal effort. Therefore, it should be automatically generated based on the requirements of the user.

We have come across a problem that hasn't been mentioned in the brief which needs to be looked at with detail, the ability to generate huge numbers of certificates at the same time for different users that have different specified requirements for the certificate and giving the same customer the number of different certificates, they need without duplication.

Some of the requirements that have been outlined to us by Track Genesis are:

Functional Requirements:

1. The prototype should prompt users to enter necessary details for the certificate, such as recipient name, event details, and any other relevant information.
2. The prototype should support dynamic content customization, allowing users to tailor certificates for different events or recipients.
3. The prototype should handle errors gracefully and provide informative error messages when input errors or other issues occur.
4. The prototype should be scalable to handle the generation of a large volume of certificates efficiently.
5. The prototype should ensure compatibility with different operating systems and Java environments.

Non-Functional Requirements:

1. The prototype should have a navigation bar where the user is able to navigate through the app.
2. The prototype should have a good colour scheme that is comfortable for the user and allows the user to read the text properly and easily.
3. The prototype should display previews of generalised certificates for the user to have an idea.
4. The buttons should do what the user expects them to do. i.e. the search bar when clicked on should allow the user to type.
5. If user doesn't have an account, they should be able to create one.
6. The user should be able to save and download the certificate.

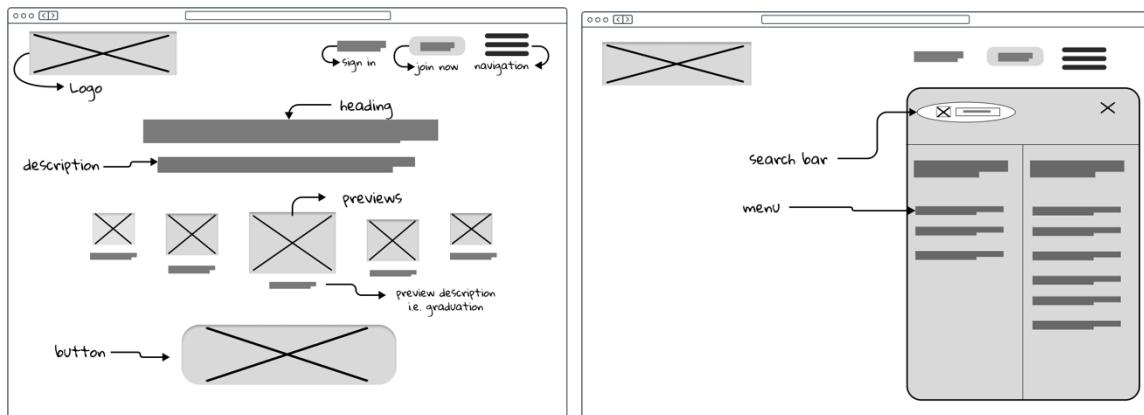
Usability

In this section will be focusing on the usability of the product that we are developing. The aim of this is to see how fast the user can learn how to use our program discarding their technology skills to achieve the tasks that they want to achieve by using the product. This will show how easy the program is to use and therefore, having a user-friendly program. There are different ways in which we can gather this information, we can do that through user feedback on the application or we can see how long the user spend on the app, the number of instalments and un-instalments of the app and so many more. However, for us to be able to review and check the quality and the satisfaction of the user experience on the app we must look at a few certain factors and these include:

- **Ease of learn**, this will show how easy it is for the user to learn how to use the website for different types of users some that have seen user interfaces like this and some others that haven't. this is important as it is crucial that all types of users are able to use the website with the same level of ease. This could also be achieved by having worldwide used icons and terms and therefore eliminating some language barriers and will help the user to use the app faster.
- **Efficiency**, this will demonstrate how the user can get their tasks done without putting a lot of effort and in the least steps needed. The less time it takes for the user to complete a task on the app the better it will be, as the user would not want to spend a lot of time navigating through the app and have a lot of pop-up windows.
- **Design** should have a user-friendly design that has the right colour schemes and is pleasant for the eyes. The colour schemes should take into consideration different conditions that people might have that are using, it should demonstrate an effortless understanding of the app. The design should be consistent and have the buttons in the same place on each page and using the same colour schemes for the user not to get confused.
- **Error clarity**, when the user does something wrong the app should demonstrate to the user what they have done wrong and what to do to fix it to be able to proceed with what they are doing on the app. This means that not just using a sound to attempt to demonstrate that the user has done something wrong. This can be fixed by highlighting the section that has the error and then providing some instructions on what to do next for the user. We could potentially instruct the user at the beginning on what to do and what information is needed and what is optional by having the "*" next to the important information that is needed.
- **Navigation bar**, this is important as it helps the user navigate through the whole app and go back and forth to the needed pages. It is important for it to be in plain sight and for the user to be able to find it easily as it makes the whole process faster.
- **Informative**, when the user goes to the page where they want to get their task done it should well informed and has all the instructions needed for them to be able to seamlessly get that task done. Control clarity is a very important part of this.
- **Compatibility**, the app should be compatible with all different user devices and therefore for the user to be able to use this app on whatever device or OS they have.
- **Memorability**, the app should be simple and very easy to use and therefore this will allow the user to remember how to use it when they are next on the app. Therefore, allowing them to effectively use it.
- **Subject satisfaction**, this will show if the user likes using the app and the system that has been developed that the app has been built upon.

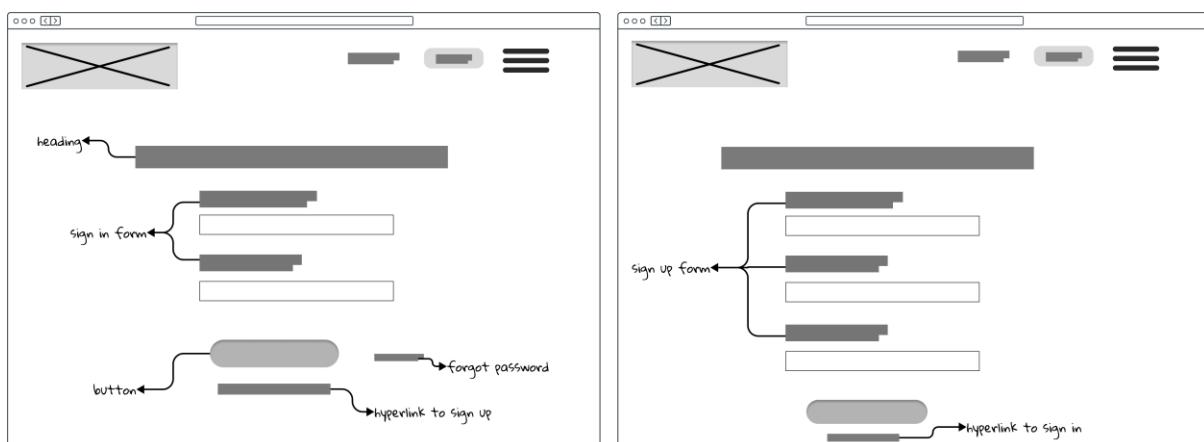
Wireframe Diagram

A wireframe is mainly a low or high-fidelity sketch diagram that aids in helping us visualise how we want our application to look, we think of this as the blueprint or the “skeleton” to our application. It is usually represented as a two-dimensional sketch with shapes and minimal colours, lacking in both details and designs. It provides us with an overview to site features, functionalities, and the user interfaces/interactions while being both costly efficient and a safe method before executions as it is open for discussions between clients, programmers and UX designers, allowing changes.



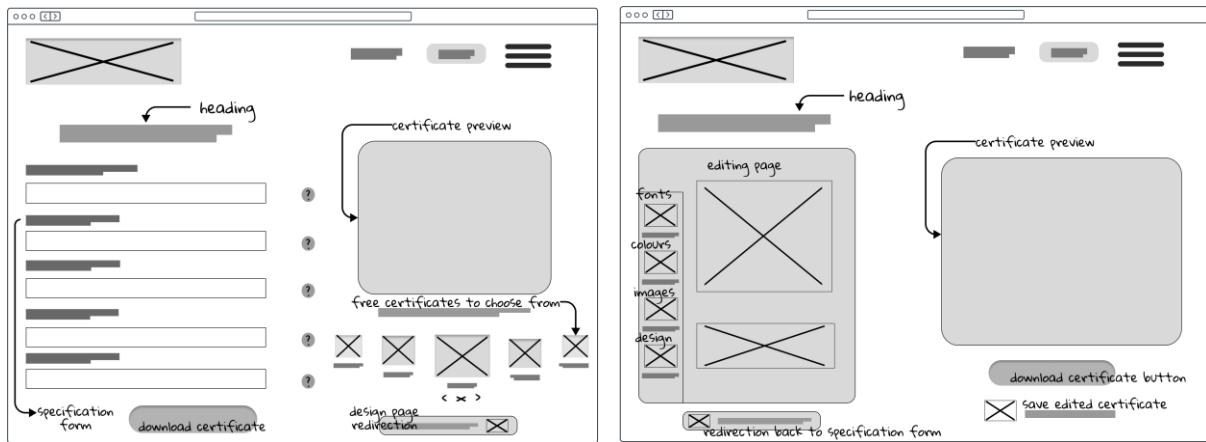
Home page: Upon first re-direction to our website, this will be what the users see. This page consists of a logo to represent the company, a heading to inform users of the purpose of the site as well as a description to give any information relating to the site or company, visual previews with descriptions underneath the image to both draw users in by seeing what the site can offer and giving context to the certificates, accompanied by a button to redirect the users to the certificate generator (if the user isn't signed in, it will first send them to the sign in/up page), a sign in and on the top right, a join now next to the sign in button to allows users and sign in option not having any colour or standing out as much as the “join now” button to avoid confusing users and a navigation button which is the triple bar's purpose is to allow clients can delve deeper to find out more information.

Navigation pop-up: once the triple bar has been hovered over or clicked, it will display an ‘x’ to signify exit at the top, a search bar if users would prefer to search things up and a list of hyperlinks for users to delve deeper for more information e.g. help, contact us.



Sign in/Sign up page:

This page consists of a heading to inform the user the purpose of the site, as well as a button which could be sign in or sign up depending on which page the user is on. There will be hyperlinks to redirect users to either site and forgot password hyperlink to redirect to forgot password page. The user will have to type in their email and password to sign in, and to sign up the user will have to type in their email, password and re-enter their password again to avoid typos.



Specification form: The specification form is used for input to write text on the certificate. The input boxes will consist of the title, name, signature, date, and event details, E.T.C. The user will also have minimal options for designing as they will have to pay for more editing. There will also be help icons beside each input box to help users, when hovered it will give information as to what each text box does. The user has the option to download the certificate, and to redirect to the design page.

Editing page: The editing page will consist of different options of design editing, the user can change fonts, colours, add images, and have a more varied design than the one on the specification form. The user has the option to save the edited certificate to their certificate library which will be saved and accessed via their profile. This page is only accessible with a premium subscription, which the user will have to purchase.

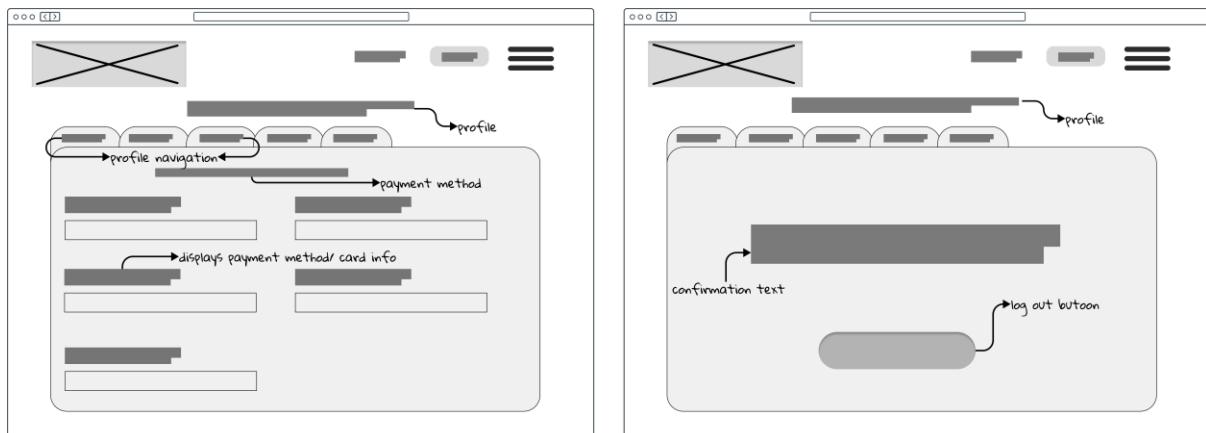
Both pages consist of:

- Redirection link to redirect to each page if user wants to go back to tweak something.
- Download button to download certificate.
- Certificate preview so users can visually see edited changes to certificates.
- Heading to inform users of the purpose for each page.



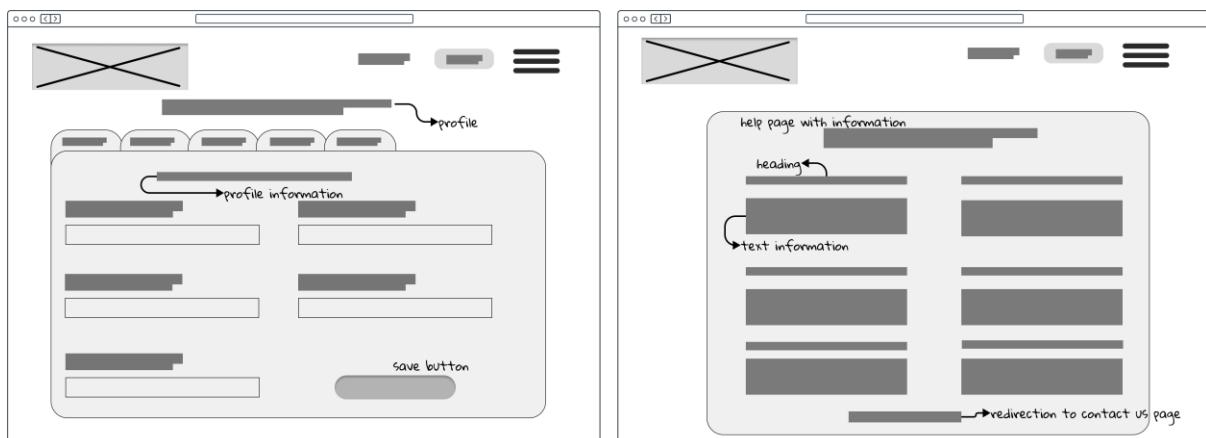
Subscription page: The subscription page will be redirected if users want extra features, the first tier is the free feature tier, and the second tier is the premium feature tier. Users will have the option to save edited certificates, more design options, and the ability to create unlimited number of certificates.

Payment page: If user chooses to access the premium feature, they're redirected to the payment page, users will have to fill in their card details such as card holder name, card expiry date, card number and the CVC, user will also have to input their billing address. There will also be icons of different banks accepted such as VISA, Mastercard and American Express to give users visual information of acceptable card providers.



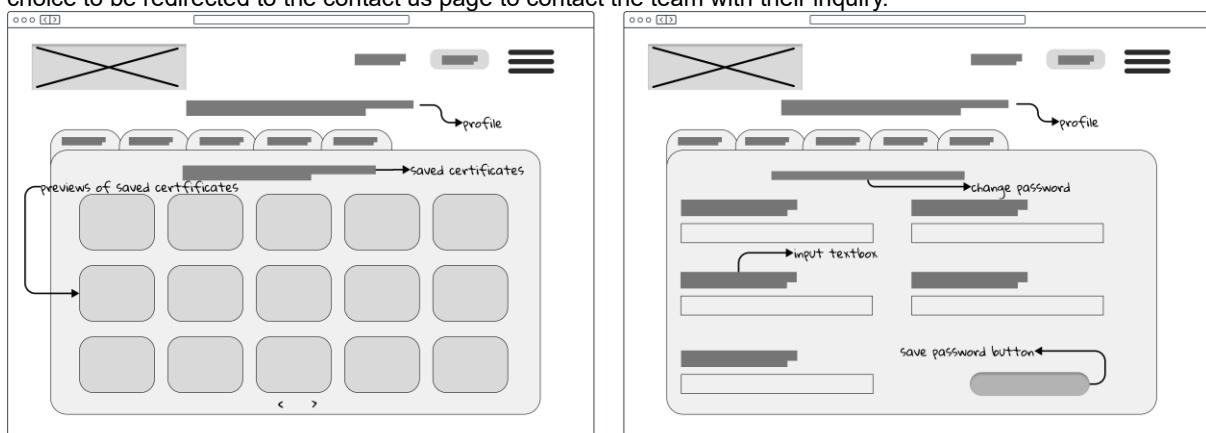
Payment method: The profile page will consist of different navigation tabs users can access, if user chooses to access the payment method, it will show the card information the user has used previously such as billing address, card holder name and card expiry date. This will be heavily censored for security reasons by asterisks. If user has no payment method added, it will show "no information added" under each section.

Log out: Users can log out via the profile section, the text will ask users if they are sure they want to log out, once user clicks the "log out" button, the user is signed out and redirected to the homepage. The user will have no access to the account until signed in again.



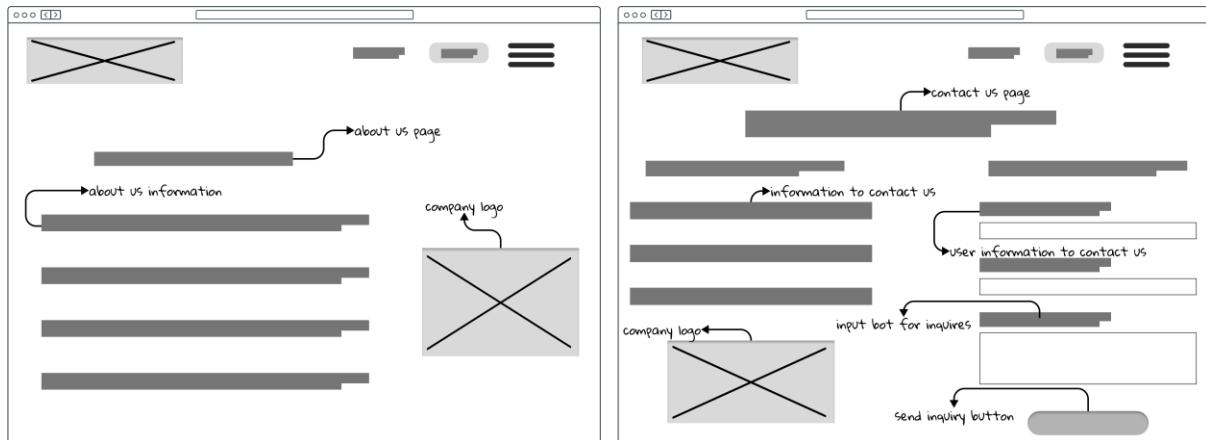
Profile information: the profile information will consist of the email, the subscription tier user has, the password (which will be heavily censored by asterisks with no character previews).

Help page: The help page will have different information regarding commonly asked questions, such as information of subscriptions, how to upgrade if the user does not find what they are looking for, they will have the choice to be redirected to the contact us page to contact the team with their inquiry.



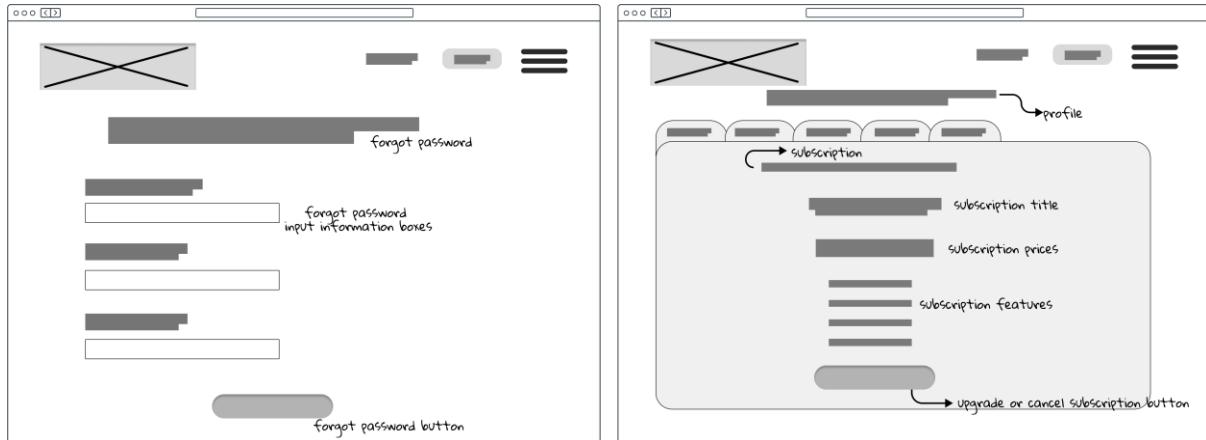
Saved certificates: Users with premium subscriptions can save unlimited amounts of certificates, this page will include slots that the certificates previews will be saved to.

Change password: Users will have the ability to change their password, they will be prompted to enter their current password, new password, re-enter their new password. They will then be able to change their password by the 'save password' button which will save the new password entered.



About us page: The about us page will consist of the heading to inform users of the page with information about the site and the company, it will then have an image box that the company logo can be added too.

Contact us page: The user will be prompted to enter the name, email and their query in the box provided with a box to forward the inquiry to the company. There is also an image box for the company logo to be added.



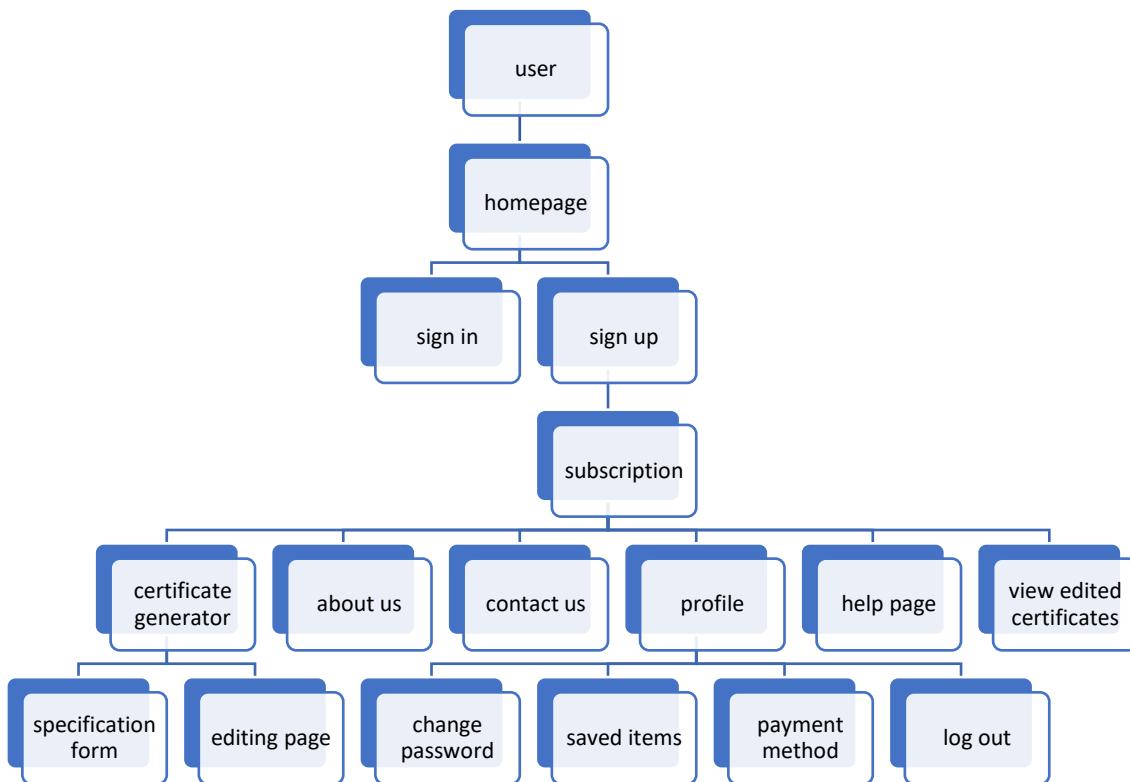
Forgot password: Users who have forgotten their password can change their password, they will be prompted to enter their email, new password and re-enter their new password. There will be a button to save the forgotten password to their new password.

Subscription management: Users can view and upgrade via the subscription page on their profile, this will give the users information on their subscription such as the price, tier and the features.

Navigation Map

In this section we will be introducing navigation maps. Navigation maps are pathways of each page in the program that the user can take to achieve a goal or to reach their desired page. This will be showcased in a hierarchical structure from the start to the end showing the pathway and the different hyperlinks and pages the user goes through and can explore throughout their journey to their destinated page.

However, to have a good and easy to use program we have to have a clear and well-organised navigation map for the user to efficiently use the app and get to the desired page in one click.



Home Page:

When the user goes on the app the first thing, he will see is the home page and then they will be able to sign in or sign up if they don't have an account yet. They will then get an option after signing up to get a subscription where they will get a free 7-day trial of all the premium features and the decide if they want to create a subscription and pay for it.

The user will be able to access all the pages from the home page as it will have the navigation bar which will be available on all the different pages allowing the user to access all the pages and explore easily and efficiently.

Sign in/ Sign up:

After the user has gone on to the app the page will load, and it will show the sign in / sign up page if the user has already signed in then this page will not show however if the user doesn't have an account already then, they will have to create an account and sign up for the subscription scheme which will give them more editing tools. They will get a 7-day trial which will allow them to see the different options and see if they would want to pay for it, it will give them access to more editing tools.

Certificate Generator:

This page is dedicated for the user to get a preview of all the different certificates available, from this page he cold accesses the specification form in which they can add why they need the certificate for what and who and then they add the colour scheme and describe how they would like it to look like. The editing page can also be accessed and that would give them actual tools to edit the certificate like changing the placement of certain things in the certificate etc.. From this page the user can also access the editing page in which they can edit the certificate to their liking. However, this page can be accessed from all the pages from the navigation bar.

About us:

This will give the user a summary about Track Genesis company where it is situated and just a background story about the company.

Contact us:

This page will give them the company's contact information, the different social media platforms that the company is available on and website if needed to be accessed.

Profile:

This is where the user can see the different information, they have entered about themselves like the payment methods, saved items and the ability to change their password.

Help page:

This page will guide the user through the different aspects of the app and will help them achieve a certain task.

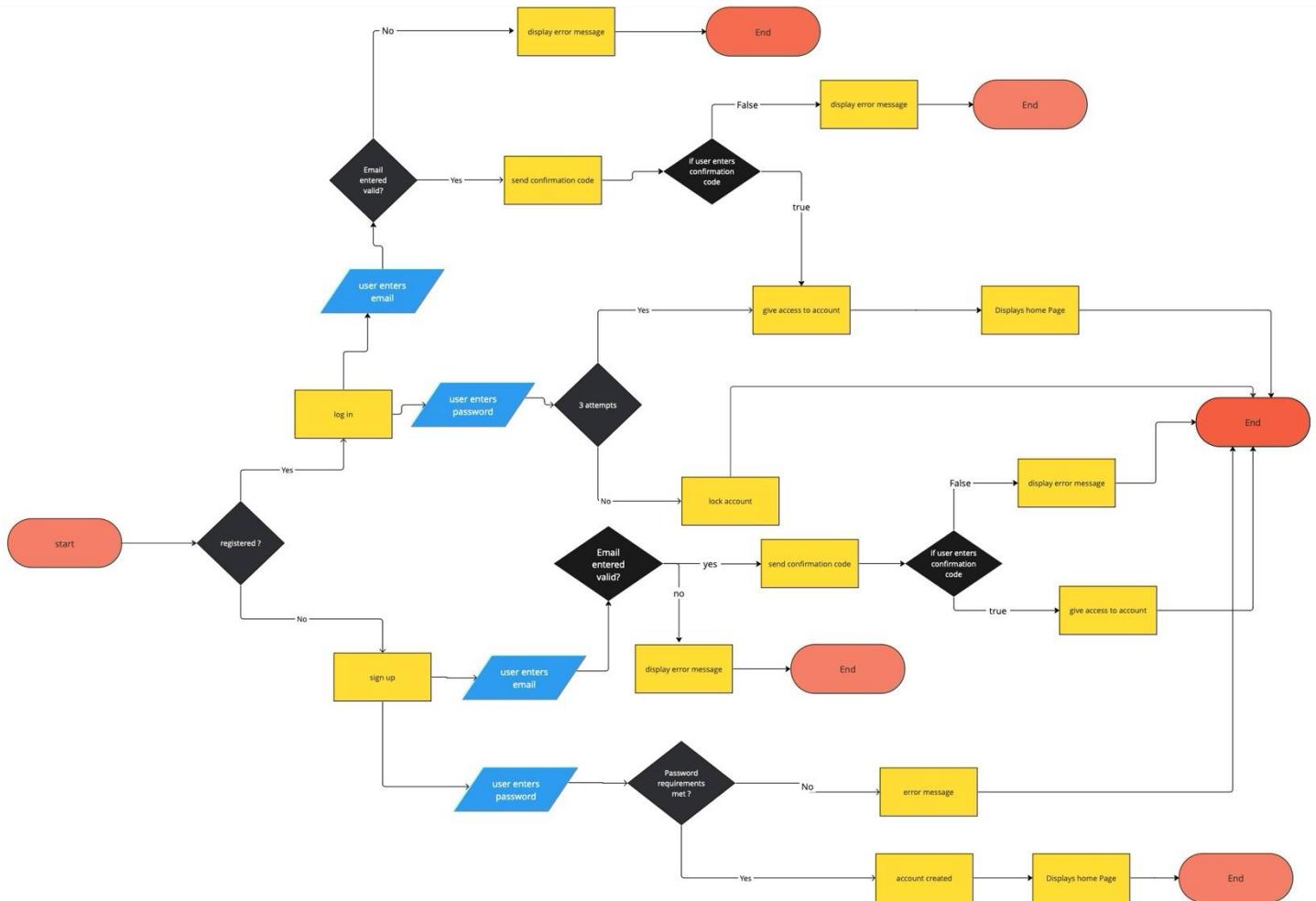
View edited certificates:

This will allow the user to view the previously edited certificates and access them later if they need something similar or what them again.

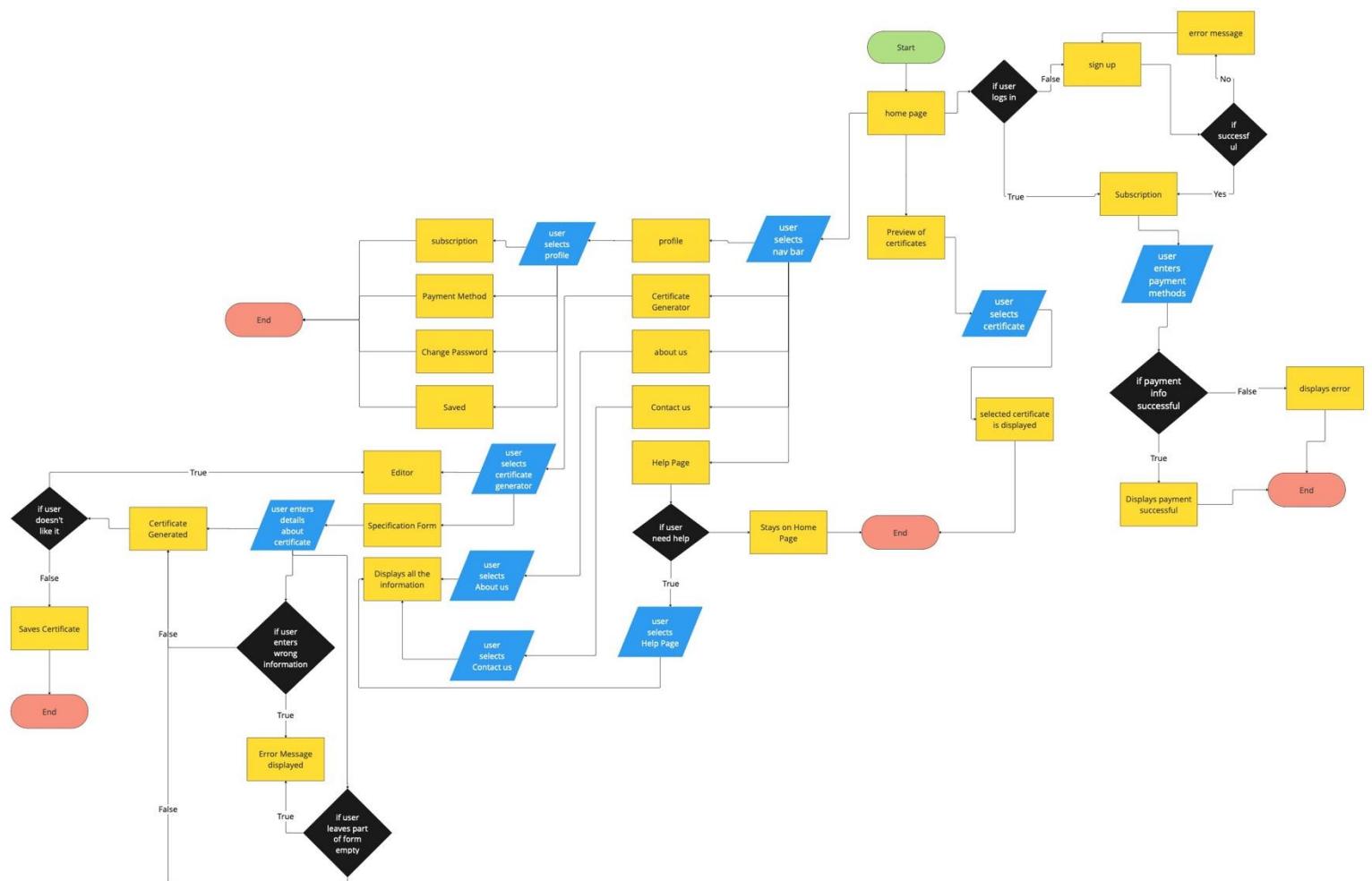
Flow Chart

In this section we will be showing how the input and output flow process is achieved by our program by using flow charts.

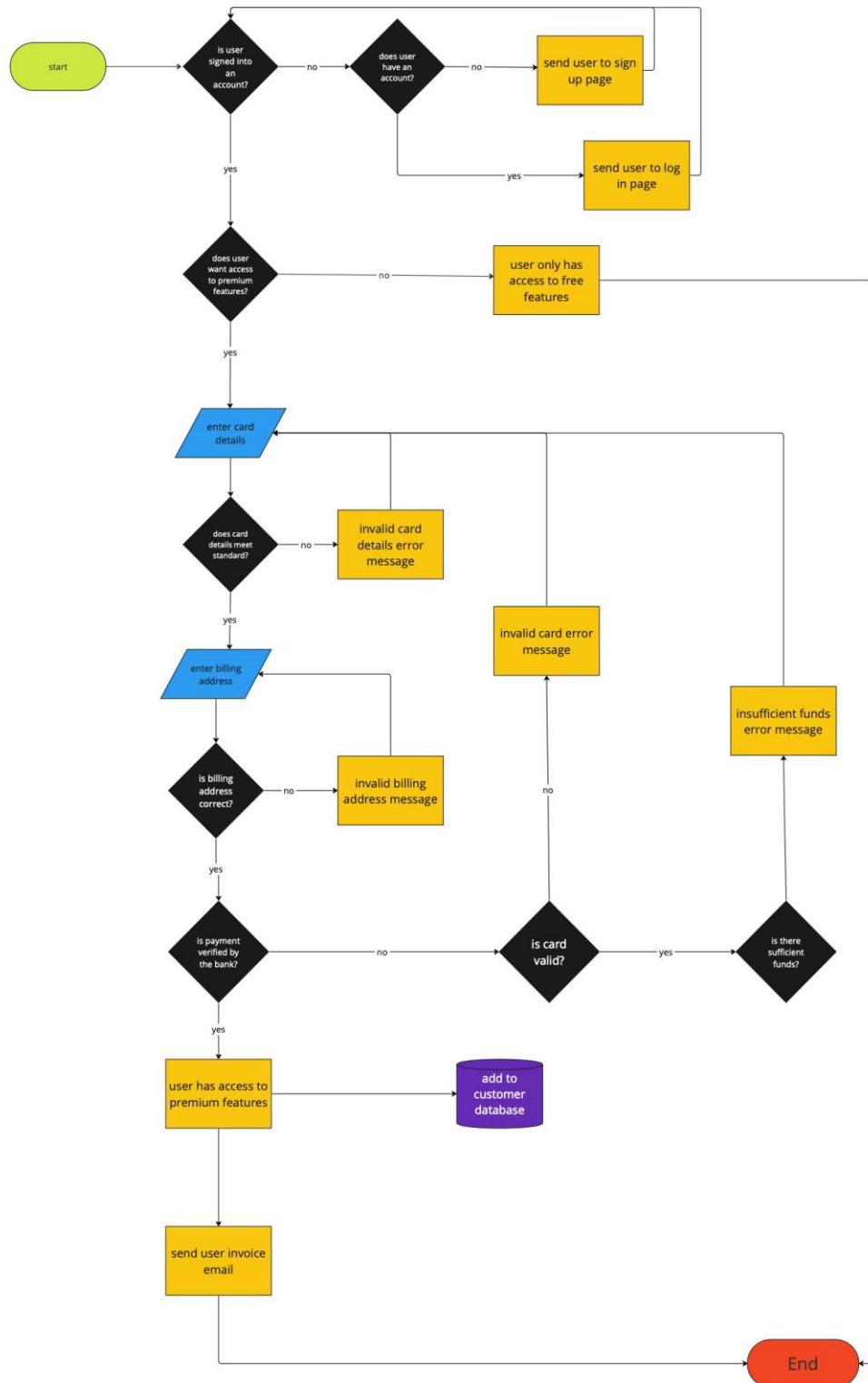
Log in/ sign up:



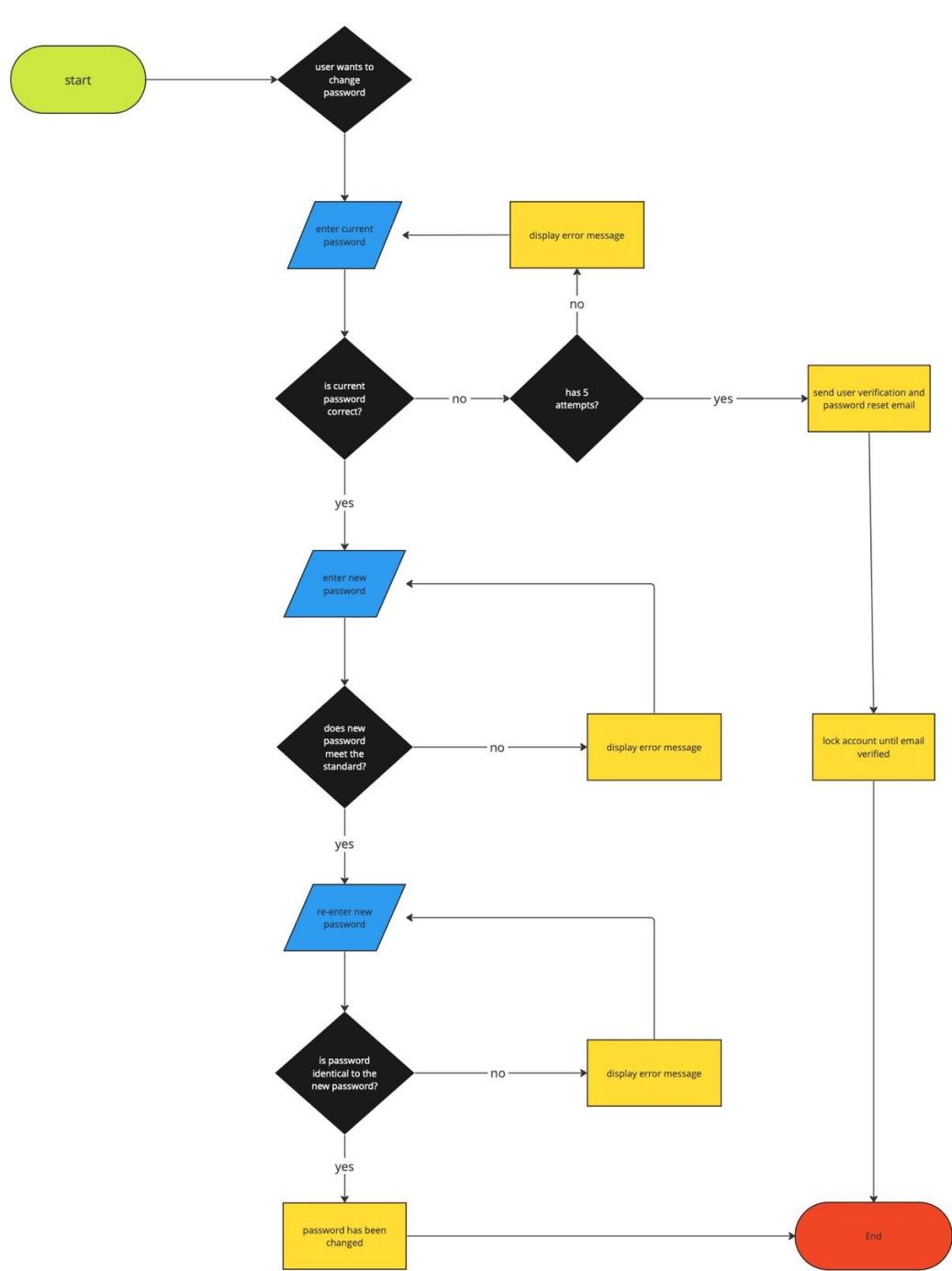
Home Page:



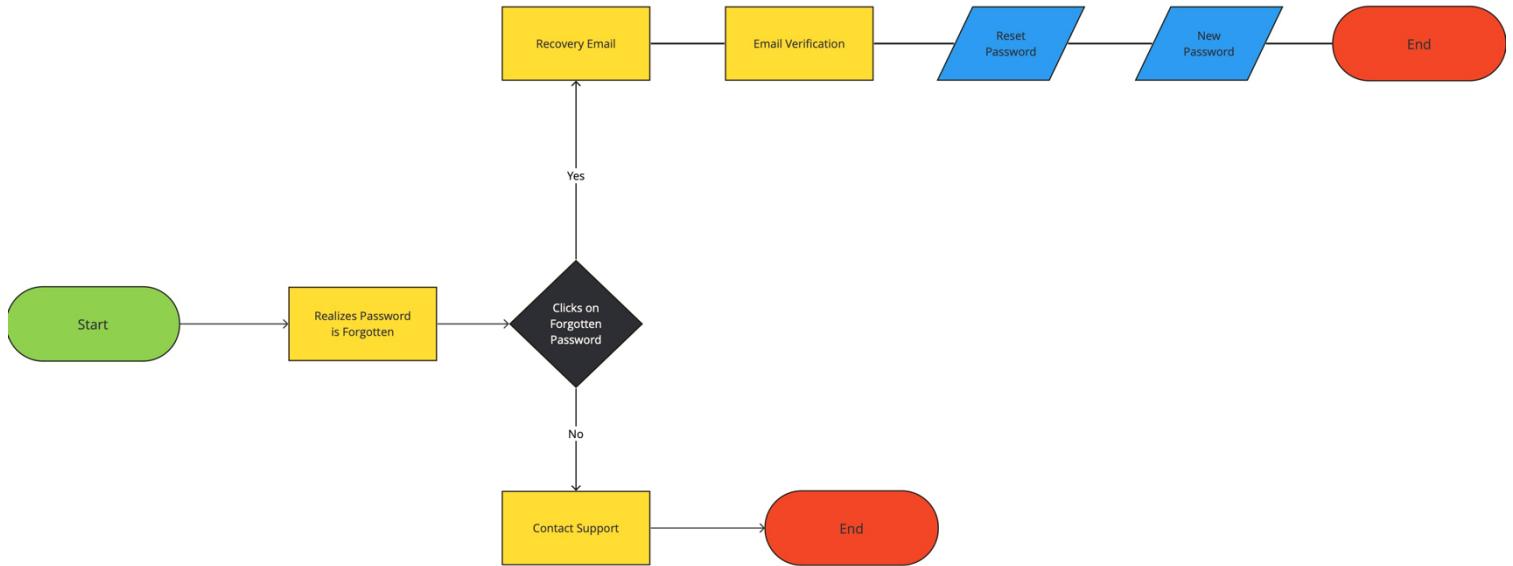
Payment Method:



Changing Password Method:



Forgotten Password:



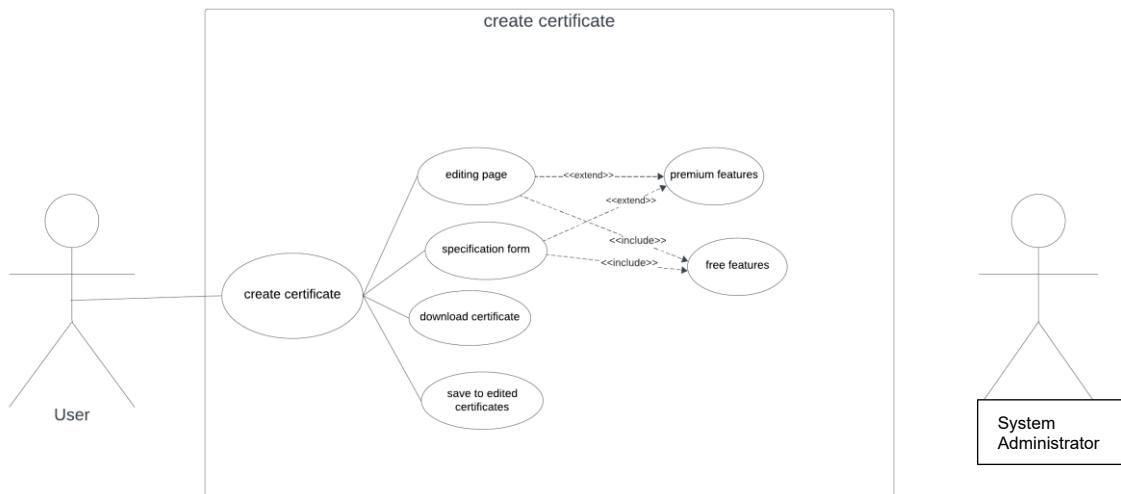
Use Case Diagrams

In this section, we display the use case diagrams to identify the actors that represent the program's users or systems interacting with specific functionalities of the software. The use cases identify features available to the user, as well as relationships between the actors to showcase internal and external interactions within the program.

Use Case Diagrams define the scope of the available features within the system. Their purpose is to actively include users in the design process to identify and understand the features they need within the program. User-friendliness and convenience are crucial factors considered in the design process.

Certificate Creation

The Use Case Diagram below represents features available to the user within the Certificate Creation page. The main function of the program is to create certificates, which includes a specification form. Within this form, users can edit both the details of the certificate and its layout, utilising either free or premium features. Additionally, users have the convenience of saving the draft to their personal library or downloading the final document.



Sign Up/Log In/Subsribe

Some features of the program, such as accessing saved certificates in their personal certificate library, are accessible only through user accounts. By providing additional features exclusive to registered users, our intent is to enhance user experience and establish trust and loyalty between the user and the service.

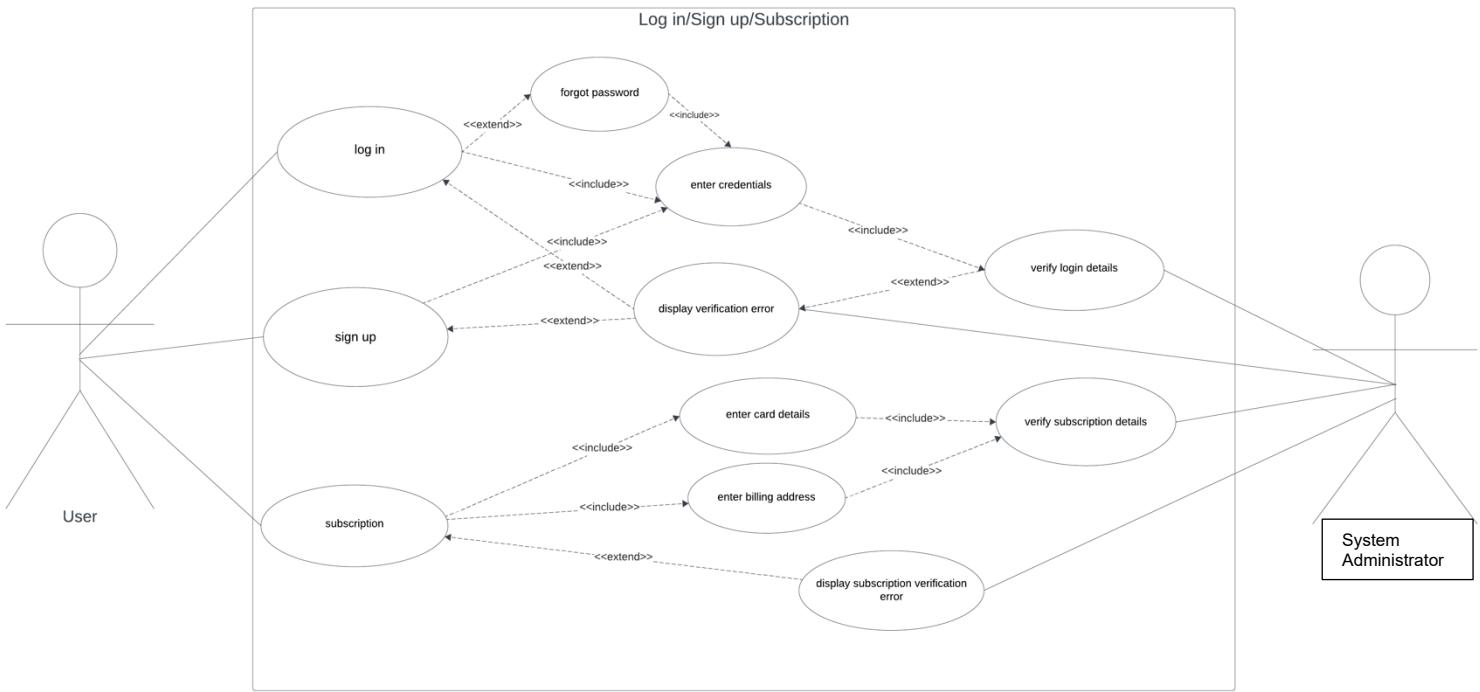
Use Case Diagram below showcases various processes that enable the user to create a new account, logging into their existing account and creating a subscription linked to their account.

The signup process involves users providing their credentials, which then are verified. Depending on whether the details provided were correct, the system either creates a new account for the user or displays a verification error message.

Logging in entails entering the credentials used in the registration process, which the system then verifies. If the login details are incorrect, the system displays an error message, informing the user of an unsuccessful login attempt. After successful verification, the user is logged into their account.

The procedure also enables the user to reset their password in case they forgot it and lets them change it so they can access their account.

Subscribing to premium offers additional features that enhance their user experience and expand their customisation options. Given the prevalence of deceptive subscription plans, it is essential to ensure that users feel confident when providing their payment details. This involves thorough verification of their payment information, as well as confirming their subscription details.



Account management

Account management feature allows users to manage their information and access saved certificates.

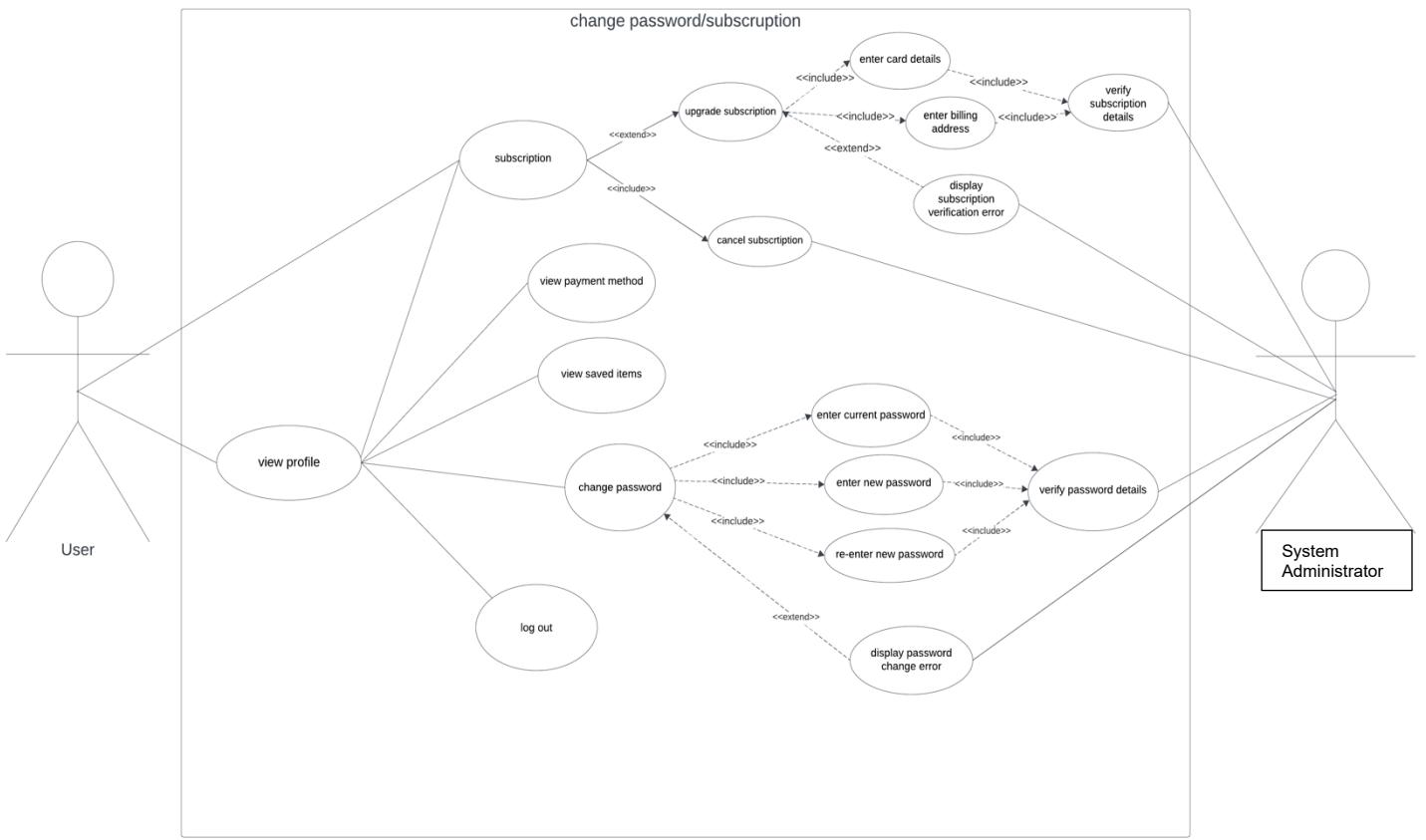
The 'change password' feature enhances the security of their account, particularly when it stores billing information for their subscription.

The aim is to provide users with a sense of control over their accounts, ensuring additional privacy, especially if they suspect unauthorized access across various services. Since users often reuse their passwords for different accounts, the ability to change their password becomes a crucial preventative measure against potential security threats.

Subscription management's accessibility cultivates transparency between the service provider and the user, thereby enhancing the user experience and highlighting commitment to user satisfaction.

The goal is to ensure that users do not feel trapped in their subscription, as many existing subscriptions often lead to unwanted charges or present challenges in cancellation. This offers a transparent and user-friendly service cancellation to maintain positive relationships with the customers.

The "Log out" feature signs the user out of their account, effectively preventing unauthorised access to their profile.



Certificate Generator

The Uses Case Diagram below illustrates the essential functionalities and user experience aspects of the program.

- Home page:
 - Showcases the organisation's brand and identity.
 - Provides a user-friendly interface for easy navigation.
 - Offers a comprehensive content overview, including a navigation menu, serving as a gateway to the program's features and content.
- Log in/Sign up page:
 - Enables user registration or login to access personalised content or subscribe to premium features, following successful system verification.
- Contact Us:
 - Serves as a direct point of contact between users and the organisation.
 - Provides user support for program-related inquiries.
 - Allows users to provide feedback and suggestions, promoting a strong relationship between users and the organisation.
- Help page:
 - Offers answers to common inquiries.
- View profile:
 - Facilitates subscription management, including upgrades or cancellations.

- Allows user to view their current payment method and access saved certificates in their library.
- Provides password management and a log out service.
- About Us:
 - Introduces the organisation's brand, values and history.
 - Establishes trust and transparency the organisation's identity.
 - Includes contact information and contributes to Search Engine Optimisation (SEO).
- Certificate library:
 - Allows user to manage and view previously created certificates.
- Create certificate page:
 - Enables users to edit certificate layout and details using free or premium features.
 - Provides options to download certificates in PDF format and save them to the user's library for future use.

Use case diagram of full website:



Pseudocode

Pseudocode is a tool used in software engineering to represent the plan, design, and logic of a program. It serves as a high-level representation of the steps and logic required to implement the required features, conveyed in plain language rather than using the syntax of any programming language.

It allows to effectively outline the scope of the software and its intended functionality, effectively serving as blueprint for the software solution. The Pseudocode will allow professionals and people with different skills to understand what the program will do without needing experience.

//Welcome page

Output "Welcome to WAG certificate generator."

Output "Please log in or register to start creating your own personalised certificate."

//Log in page

register(){

Get user details (email, name, password) from the sign-up form.

if (mandatory information is missing)

Output "Some of the information is missing."

Return user to the form.

if (all data is valid and user does not exist in the database)

Send confirmation code to the user's email

 if (correct confirmation code is entered by the user)

 Insert data into the database

 Output "Registration successful."

 if (confirmation code is entered incorrectly)

 Output "Incorrect code. Please check your email or resend the verification code."

 if (user email address is already registered)

 Output "Your email is already registered. Please log in or use the "Forgot password" service to reset your password."

Return to log in page

}

logIn(){

Initialise passwordAttempts set to 0

while (passwordAttempts is less than 3) {

 Get email from the form

 Get password from the form

 Check if the provided credentials are valid

```

if (email or password are left blank)
Output "Please enter you email and password."

if (the password from the database matches the user ID)
Log the user in
Go to the main page

else
Output "Invalid log in details."
Increment passwordAttempts by 1
}

if (passwordAttempts is equal 3)
Lock the account
Output "Sorry, your account has been locked. Please use "Forgot password" service to unlock
your account."
}

getPaymentDetails(User) {
Output "Enter card card number:"
Get card details from the user
Output "Enter card's expiry date:"
Get card's expiry date from the user
Output "Enter the 3 digit CVC code on the back of the card:"
Get CVC code from the user
Output "Enter the full name visible on the card."
Get full name on the card from the user
Output "Enter the billing address."
Get billing address from the user

if (the card details are not valid or any of the fields are left blank)
Output "There's a problem with your card details. Please review the provided information."

else if (card details are valid)
Output "We're going to contact your bank to verify the card. Your bank might ask you to approve
this transaction."

if (card is verified successfully)
Output "You have subscribed to premium features. Thank you for subscribing. We appreciate
your support!"

else
Output "Sorry, we couldn't verify the card details. Please review the card information or use a
different card."
}

subscribeToPremium(User){
Output "Choose a subscription plan to access premium features."
Get subscription plan choice from user

if (any subscription option was chosen)
getPaymentDetails(User)
Return to the previous page
if (cancel option was chosen)
Return to the previous page
}

```

```

//Certificate generator page

certificate(recipientName, eventDetails, date, signature) {
Initialise certificateAmount set to 1
Output "Enter required amount of this certificate"
Get certificateAmount from user
Set ceritificateAmount to user's input

Loop i from 0 to value of certificateAmount
For (i is less than certificateAmount, increment i by 1 at the end of the loop)
{
Output "Recipient name: "
Get recipient name as recipientName from the user's input and assign it to i place in array
Loop
}

Output "Choose one of the free templates or subscribe to access our premium features for a
personalised experience: "

if (user chooses premium features)
if (user is not a subscriber)
Output "Subscribe to access premium features."
subscribeToPremium(User)
Return to the certificate generator page

Get the title of the certificate as eventDetails from the user's input or one of the templates

if (ceritificateAmount is equal to 1)
Output "Date to be displayed on the certificate: "
Get the date as date from the user's input

else if (certificateAmount is greater than 1)
Output "Date to be displayed on the certificates: "
Get the date as date from the user's input

Output "Signature of the certificate: "
Get the signature as the signature from the user's input

if (all necessary fields are filled out correctly) {
Loop i from 0 to value of certificateAmount
For (i is less than certificateAmount; increment i by 1 at the end of each loop)
{
Set recipientName in the list with i index to user's input
Set eventDetails to user's input
Set date to user's input
Set signature to user's input
Loop
}

Output "Create PDF or save the certificate to your library."

if (user decides to create the PDF)
Convert to PDF
Save the generated PDF to stream or file
Save the certificates to user's certificate library
Else save the certificates to user's certificate library
}

```

Trace Tables

Register

Name	E-mail	Password	Data Validation	Email present in the database	Verification Code	Output
Y	Y	Y	Y	N	Y	Registration successful.
Y	Y	Y	Y	N	N	Incorrect code. Please check your email or resend the verification code.
Y	Y	Y	Y	Y	-	Your email is already registered. Please log in or use the "Forgot password" service to reset your password.
Y	Y	N	N	-	-	Some of the information is missing.
Y	N	N	N	-	-	Some of the information is missing.
Y	N	Y	N	-	-	Some of the information is missing.
N	Y	Y	N	-	-	Some of the information is missing.
N	Y	N	N	-	-	Some of the information is missing.
N	N	N	N	-	-	Some of the information is missing.

Log In

E-mail	Password	Data Validation	Increment log in attempts for registered emails	Log in attempts less than 3	Output
Y	Y	Y	N	Y	1
Y	Y	Y	N	N	Sorry, your account has been locked. Please use "Forgot password" service to unlock your account.
Y	Y	N	Y	Y	Invalid log in details.
Y	Y	N	Y	N	Sorry, your account has been locked. Please use "Forgot password" service to unlock your account.
Y	N	N	-	-	Please enter you email and password.
N	N	N	-	-	Please enter you email and password.
N	Y	N	-	-	Please enter you email and password.

Getting payment details from user

All card details filled out	Data Validation	Bank verification	Output
Y	Y	Y	You have subscribed to premium features. Thank you for subscribing. We appreciate your support!
Y	Y	N	Sorry, we couldn't verify the card details. Please review the card information or use a different card.

Y	N	-	There's a problem with your card details. Please review the provided information.
N	N	-	There's a problem with your card details. Please review the provided information.

Subscribe to premium

Subscription plan choice	Get payment details	Output
Y	Y	1
Y	N	0
N	-	-

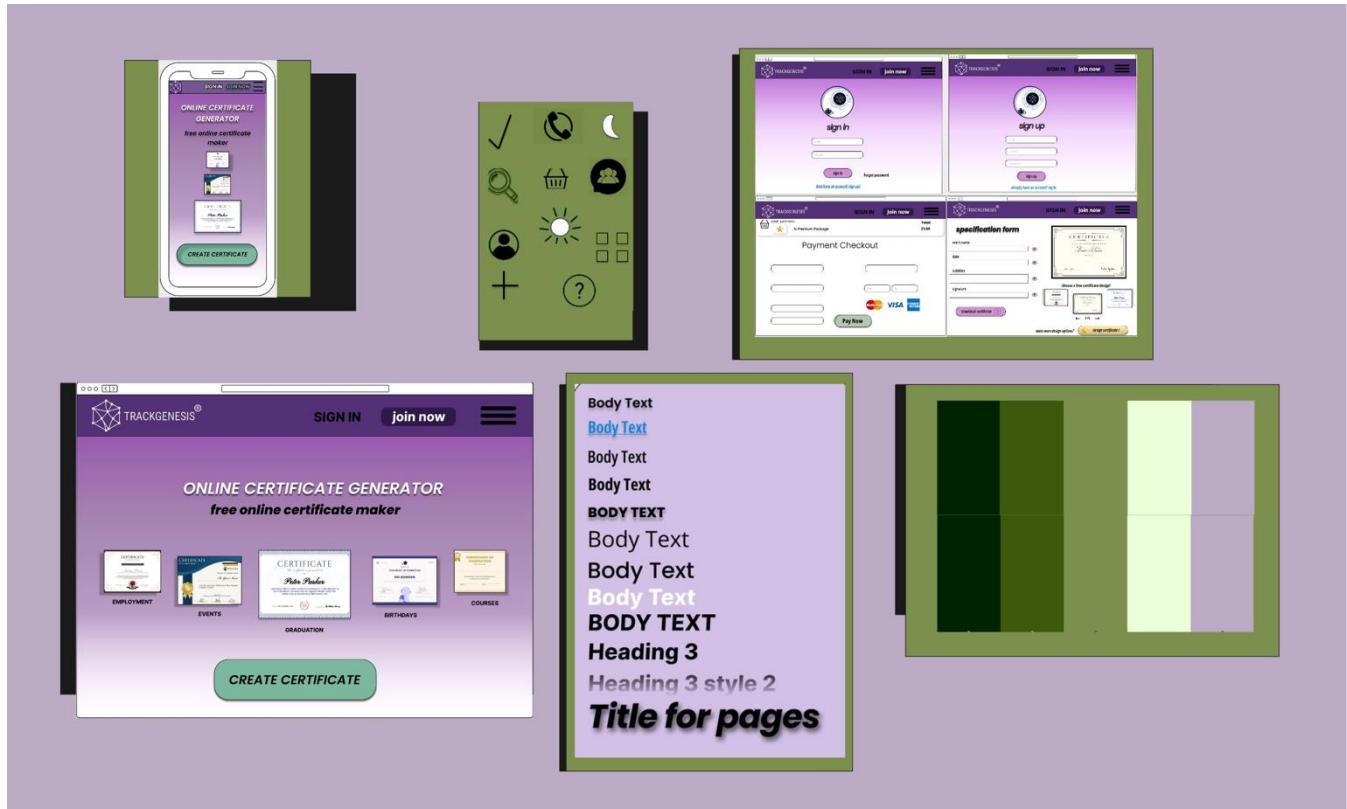
Certificate generator

Certificate details complete	Premium features	Is user subscribed?	Output
Y	Y	Y	Create PDF or save the certificate to your library.
Y	Y	N	Subscribe to access premium features.
Y	N	Y	Create PDF or save the certificate to your library.
Y	N	N	Create PDF or save the certificate to your library.
N	-	-	-

Mood Board

In this section we will be showing you a mood board of the different colours, fonts and design ideas that will be included in the prototypes.

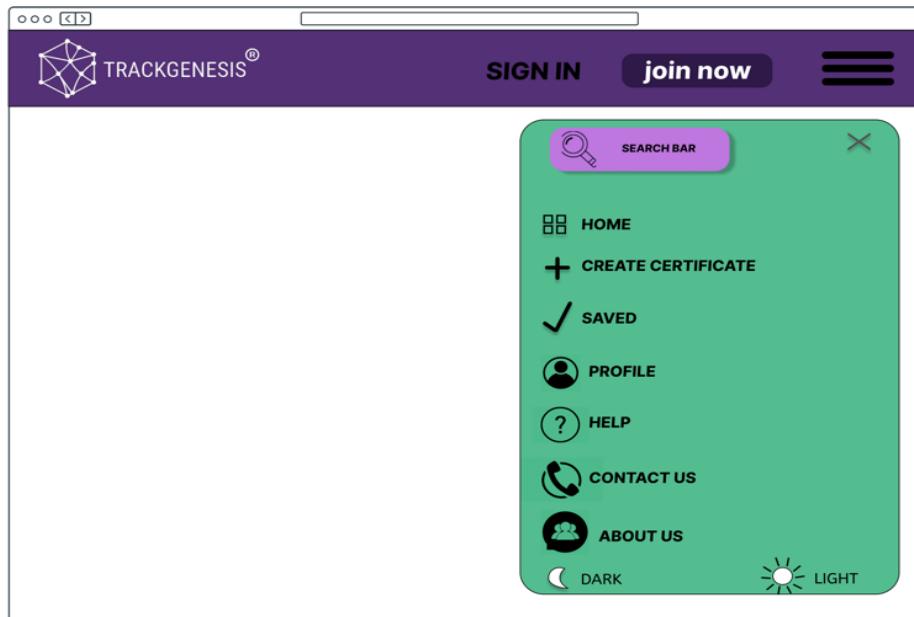
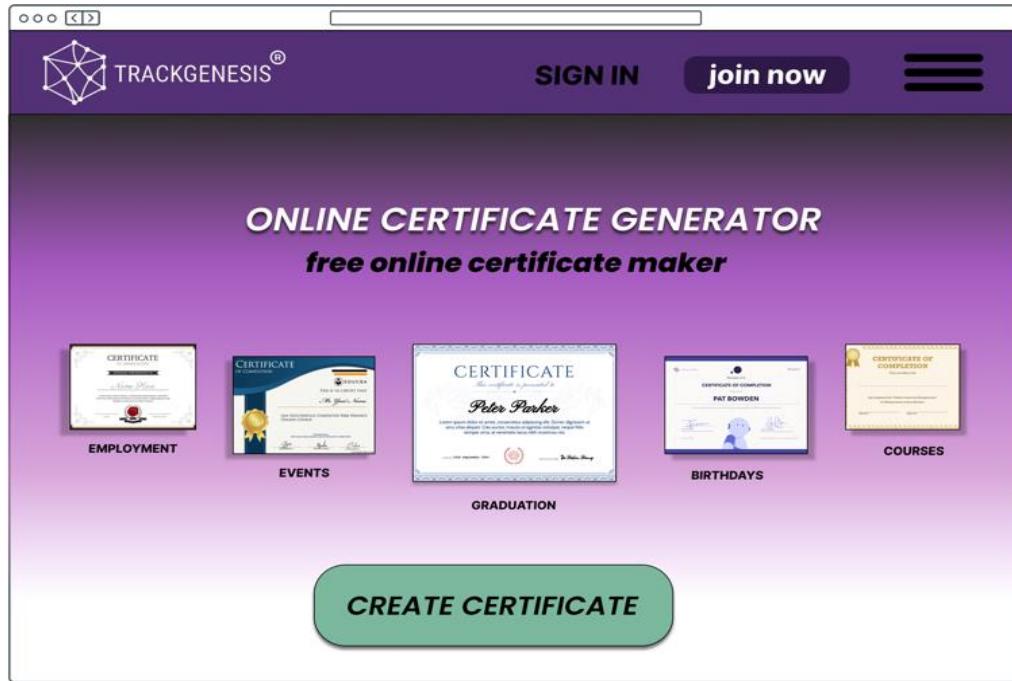
This is just done to have a general overview over what the final product is going to be.



Prototypes

This is the final website design, it references the wireframes while adding additional features to accommodate the product requirements and usability for users in attempt to make it more efficient to use while giving it more visual appeal.

Homepage & Navigation



Sign in/Sign Out/Payment/Subscription Page/Forgot Password

The image displays five screenshots of the TRACKGENESIS mobile application interface, arranged in a grid:

- Sign In Screen:** Shows the TRACKGENESIS logo at the top. Below it is a circular icon containing a stylized geometric shape. The word "sign in" is centered. It includes fields for "e-mail" and "password", and buttons for "sign in" and "forgot password". A link "dont have an account? sign up!" is at the bottom.
- Sign Up Screen:** Similar layout to the Sign In screen, but with "sign up" instead of "sign in". It adds a "re-password" field and a "sign up" button. A link "already have an account? log in" is at the bottom.
- Payment Checkout Screen:** Shows a summary: "open summary" (with a trash bin icon), "1x Premium Package" (with a star icon), and "Total: £1.50". Below is a "Payment Checkout" section with fields for "card holder name", "card number", "card cvc", and "billing address". It features payment method icons for MasterCard, VISA, American Express, and Maestro. A green "Pay Now" button is at the bottom.
- Become a Subscriber Screen:** A comparison of two subscription packages:
 - FREE PACKAGE:** Price: £0.00. Features:
 - CREATE UP TO 5 CERTIFICATES
 - ACCESS TO FREE DOWNLOADABLE TEMPLATES
 - 3 FREE SAVE CERTIFICATE SLOTS
 - PLATINUM PACKAGE:** Price: £1.50. Features:
 - ★ CREATE UNLIMITED CERTIFICATES
 - ★ ACCESS TO PREMIUM TEMPLATES
 - ★ SAVE UNLIMITED AMOUNTS OF CERTIFICATES
 - ★ ACCESS TO PREMIUM DESIGN FEATURES
- Forgot Password Screen:** Shows the TRACKGENESIS logo at the top. Below it is a circular icon containing a stylized geometric shape. The words "Forgot Password" are centered. It includes fields for "Email Address", "New Password", and "Re-Enter New Password", and a green "Forgot Password" button at the bottom.

specification form / design editor

The screenshot shows the 'Specification Form' section of the Trackgenesis website. It includes fields for 'quantity' (set to 1), 'participant name' (name 1), 'event name', 'date', 'subtitles', and 'signature'. There are also buttons for 'download certificate' and 'save to certificate library'. To the right, there's a preview of a certificate template with placeholder text 'Enter Name' and 'Enter Signature', along with a link to 'choose a free certificate design!' and a button for 'design certificate!'. A sidebar on the left shows icons for font, designs, colours, and upload.

The screenshot shows the 'design editor' section of the Trackgenesis website. It features a central certificate template with placeholder text 'Enter Name' and 'Enter Signature'. Below the template are buttons for 'download certificate' and 'save to certificate library'. To the left, there's a sidebar with icons for font, designs, colours, and upload, and a section for dragging and dropping files. At the bottom, there's a link to 'specification form'.

The screenshot shows the 'design editor' section with a focus on font selection. The sidebar lists various fonts: Calligraffiti, Langer, Lato, Lemon, Bla Caja, Parisienne, Rozha One, Ryie, Secular One, Lora, Mea Script, Mr. Shippends, Open Sans, METAL MANIA, Margarine, Jonahrilia, Judson, Koothan Script, Ibtar, Amwaj, Poly, Kumar one, Poppins, Mako, and Manjari. Buttons for 'download certificate' and 'save to certificate library' are at the bottom, along with a link to 'specification form'.

The screenshot shows the 'design editor' section with a large grid of certificate design thumbnails. The categories include blank page, black luxury, golden badge, pink patreon, successor, silver linings, teaparty, black wealth, empress, red carpet, honour roll, and appreciation. Buttons for 'download certificate' and 'save to certificate library' are at the bottom, along with a link to 'specification form'.

The screenshot shows the 'Design Editor' section with a large color palette on the left. Buttons for 'download certificate' and 'save to certificate library' are at the bottom, along with a link to 'specification form'.

profile sector

The image displays six wireframe screenshots of the TRACKGENESIS profile sector interface, arranged in a 3x2 grid. Each screenshot shows a purple header bar with the TRACKGENESIS logo, 'SIGN IN' and 'join now' buttons, and a menu icon. Below the header is a navigation bar with 'My Profile', 'Library', 'Password', 'Payment', 'Subscription', and 'Log Out' buttons.

- Screenshot 1 (Top Left): Payment method**
A form for entering payment information. It includes fields for 'card holder name' (John Mayers), 'card number' (5***** * * * * * * * * * *), 'card cvc' (***), and 'card expiry date' (***).

Payment method

card holder name
John Mayers

card number
5***** * * * * * * * * * * * * * * * *

card cvc

card expiry date

billing address
***** * * * * * * * * * *
- Screenshot 2 (Top Right): Log Out Confirmation**
A confirmation dialog asking 'Are you sure you want to log out?' with a large green 'Log Out' button.

Are you sure you want to log out?

Log Out
- Screenshot 3 (Middle Left): Certificate Library**
A grid view of certificate thumbnails. Three certificates are visible: 'ORTHOPATH', 'CERTIFICATE', and 'CERTIFICATE'. Below the grid are left and right arrows for navigation.

Certificate Library

ORTHOPATH

CERTIFICATE

CERTIFICATE

← →
- Screenshot 4 (Middle Right): Change Password**
A form for changing a password. It includes fields for 'Current Password', 'Email address', 'Change password', 'Re-enter Password', and a green 'Change Password' button.

Change Password

Current Password

Email address

Change password

Re-enter Password

Change Password
- Screenshot 5 (Bottom Left): My Profile**
A form for updating profile information. It includes fields for 'e-mail address', 'password', 'username', and 'subscription tier', along with a green 'save' button.

My Profile

e-mail address

password

username

subscription tier

save
- Screenshot 6 (Bottom Right): Subscription**
A section titled 'PLATINUM PACKAGE' listing benefits: 'CREATE UNLIMITED CERTIFICATES', 'ACCESS TO PREMIUM TEMPLATES', 'SAVE UNLIMITED AMOUNTS OF CERTIFICATES', and 'ACCESS TO PREMIUM DESIGN FEATURES'.

Subscription

PLATINUM PACKAGE

 - ★ CREATE UNLIMITED CERTIFICATES
 - ★ ACCESS TO PREMIUM TEMPLATES
 - ★ SAVE UNLIMITED AMOUNTS OF CERTIFICATES
 - ★ ACCESS TO PREMIUM DESIGN FEATURES

about us/who we are/contact us

The screenshot shows the 'Who are we?' section of the Trackgenesis website. At the top, there is a purple header bar with the 'TRACKGENESIS®' logo, 'SIGN IN', 'join now', and a menu icon. Below the header, a blue and white robot character is on the left, pointing upwards. The main title 'Who are we?' is in bold black text. Underneath it, there is a section titled 'What is Our Vision?' with a brief description: 'Our vision is to create a better tomorrow and a sustainable future by building transparency and trust through innovation.' To the right of this, there is another section titled 'What is Our Mission ?' with a similar description.

The screenshot shows the 'How to contact us' section of the Trackgenesis website. It features a purple header bar with the 'TRACKGENESIS®' logo, 'SIGN IN', 'join now', and a menu icon. On the right side, there is a large circular graphic with concentric rings and a central hexagonal network icon. A small blue and white robot character is standing next to it. The main title 'How to contact us' is in bold black text. Below it, there are input fields for 'Name' (with placeholder 'type here'), 'Email address' (placeholder 'type here'), 'Phone Number' (placeholder '+44'), and a large text area for 'Your Query' (placeholder 'please enter your query here'). A green 'send' button is located at the bottom right of the form.

The screenshot shows the 'Help Page' of the Trackgenesis website. It has a purple header bar with the 'TRACKGENESIS®' logo, 'SIGN IN', 'join now', and a menu icon. On the right side, there is a large circular graphic with concentric rings and a central hexagonal network icon. A small blue and white robot character is standing next to it. The main title 'Help Page' is in bold black text. Below it, there are four dropdown menus: 'How to change subscription ?', 'How to change Password ?', 'How to cancel subscription ?', and 'How do i acces the design page ?'. At the bottom left, there is a link '← contact us'.

Evaluation

The collaborative approach behind this project has the aim of designing a user-friendly certificate generator that simplifies the process for the user and maximises their experience.

The generator incorporates a dedicated form for users to specify certificate details such as recipient name, signature, and event specifics this will determine the main features of the certificate and they are generated accordingly. The platform generates certificates with various colour schemes, allowing users to customise the quantity and details of each certificate using intuitive editing tools. Moreover, to validate any missing or invalid input we have created an error checking system.

A help page is available to support inexperienced users in navigating the application and its features.

The generation of unique certificates is by randomising colours and fonts, providing a diverse array of certificates and avoiding redundancy. Furthermore, the system is designed to handle a large volume of certificate generation without any performance issues by identifying the required number of certificates.

The user interface design, a crucial aspect of the project, as this is what the user will be seeing and working with. We underwent thorough multiple discussions and collaborations to select visually appealing colours, favourable to readability and user engagement with the program and being able to achieve the targeted goal easily.

Teamwork played an important role in achieving project objectives, with constant communication and task assignment ensuring efficient progress. Each team member contributed to the different parts of the project by giving their opinion and advice from previous experience and knowledge they have, which has resulted in a cohesive and effective result for this project.

In conclusion, we think that we have achieved the main goal of the assignment and that is for the user to have a user-friendly solution allowing the users to create their own personalised certificates with ease.

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