COMP3059 Capstone Project I
Sprint 4 (20%) - Due: Friday, Nov. 22, 2024 (11:59 pm)

PART I -- Mock-up/Prototype

Use a mock-up tool (Figma) or any other tool that best suits your project to:
- Build a **Mock-up with prototyping capabilities.**

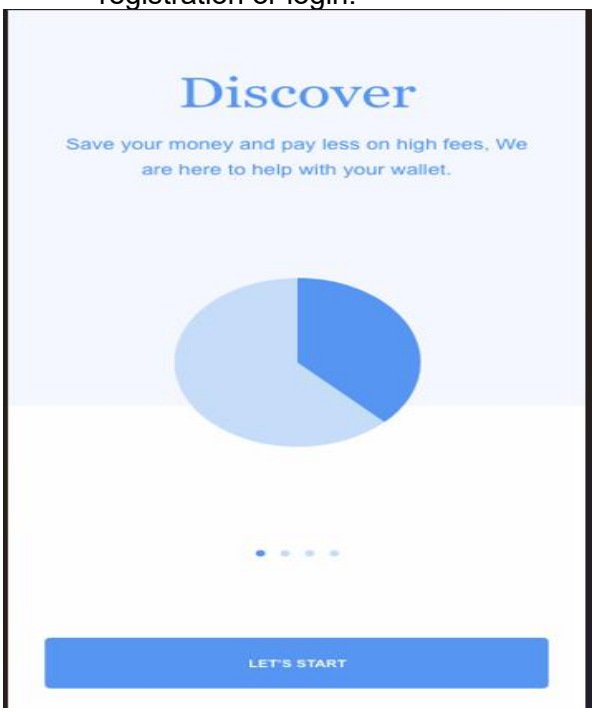
Ensure that the design of your application has effective UX and UI.
It must be interactive to show the functional and navigational capabilities.
It must also be **detailed and adhere to** Sprint 1, 2 and 3 documentations.
Note: The Mock-up should be submitted as a .pdf or any format that can be run independently.

Mock-ups with explanations/descriptions

https://xd.adobe.com/view/185c3250-128d-4b5a-9d3c-dc0138518a9b-4d0f/

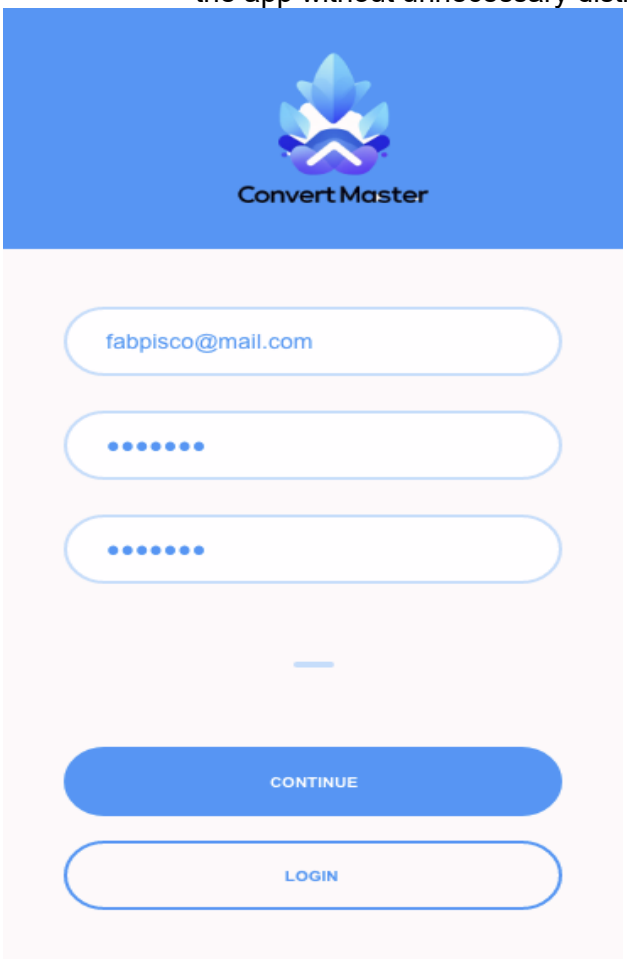
1 - Welcome Screen (Discover)

- **Purpose**: Introduces the user to the app, highlighting its main benefits and purpose.
- **Design Elements**:
  - **Header**: "Discover" – A welcoming title that engages users.
  - **Description**: "Save your money and pay less on high fees. We are here to help with your wallet." This reinforces the app's goal of assisting users in managing their financial conversions efficiently.
  - **Visual**: A simple, engaging graphic (such as a pie chart or wallet image) symbolizing the financial focus of the app.
  - **Navigation Indicator**: Dots below the graphic show the user their position in the onboarding flow.
  - **Call-to-Action**: A prominent "LET'S START" button, encouraging users to proceed to registration or login.



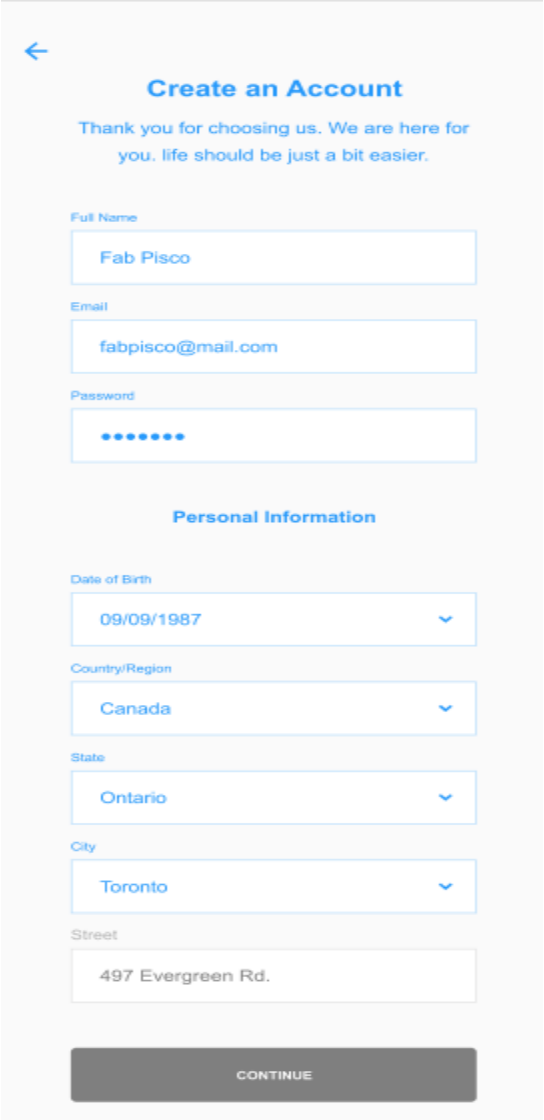
2 - **Login Screen**

- **Purpose**: This screen serves as the login interface for existing users to access their accounts and use the Convert Master app.
- **Design Elements**:
  - **Logo and Branding**: The top section features the Convert Master logo, establishing a strong brand identity.
  - **Input Fields**:
    - **Email**: An input field for the user's email address.
    - **Password**: A secure input field for the user's password, masked for privacy.
  - **Buttons**:
    - **"Continue" Button**: A primary action button for submitting the login credentials.
    - **"Login" Button**: A secondary button that might indicate an alternative way to access or confirm login actions.
- **Visuals**: The blue theme aligns with the brand's color scheme, promoting a sense of trust and professionalism.
- **User Experience**:
  - The login form is simple and clean, allowing users to quickly input their credentials and access the app without unnecessary distractions.



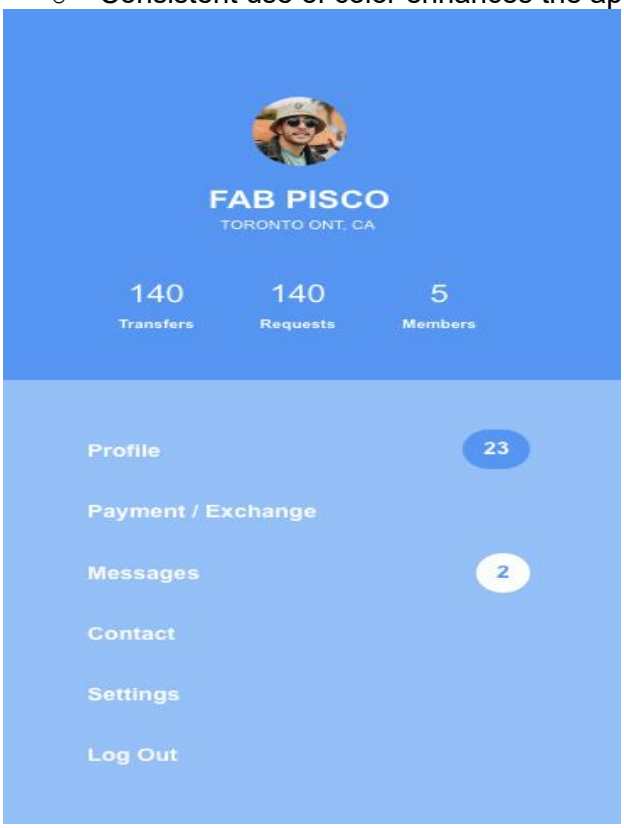
3 - Registration Screen (Create an Account)

- **Purpose**: This screen is designed for new users to register for an account. It collects necessary user details to create a profile in the Convert Master application.
- **Design Elements**:
  - **Title**: "Create an Account" – clearly indicates the purpose of the screen.
  - **Description**: "Thank you for choosing us. We are here for you. Life should be just a bit easier." – A welcoming message to encourage users and convey the app's user-friendly nature.
  - **Input Fields**:
    - **Full Name**: A field for users to input their full name.
    - **Email**: An input for the user's email address, used for account creation and communication.
    - **Password**: A secure field for setting the account password, masked for privacy.
  - **Section Title**: "Personal Information" – marks the start of additional profile details.
    - **Date of Birth**: A dropdown or date picker to input the user's birthdate.
    - **Country/Region**: A dropdown menu for selecting the user's location, which may assist in regional preferences and settings.
- **Navigation**: A back arrow at the top left allows users to return to the previous screen if needed.



4 - Profile & Navigation Menu Screen

- **Purpose**: This screen provides an overview of the user's profile and serves as a navigation hub to access different sections of the app.
- **Design Elements**:
  - **Profile Header**:
    - **Profile Picture**: A circular image showing the user's photo.
    - **Name and Location**: The user's name ("Fab Pisco") and location ("Toronto, ON, CA").
    - **Statistics**: Displays the user's app activity:
      - **140 Transfers**: Number of completed transactions.
      - **140 Requests**: Number of requests made.
      - **5 Members**: Number of associated or connected members.
  - **Navigation Menu**:
    - **Profile**: A button to view or edit the user's profile. The number "23" next to it could indicate profile updates or notifications.
    - **Payment / Exchange**: Navigates to the payment or currency conversion section.
    - **Messages**: A button to access the messaging section, with "2" indicating unread messages or notifications.
    - **Contact**: Opens the user's contact information or related features.
    - **Settings**: Navigates to the app's settings for customization and preferences.
    - **Log Out**: A button to securely log the user out of the app.
- **Visuals**:
  - The screen is split into two main sections: a blue header for the profile overview and a light blue menu area for navigation.
  - Consistent use of color enhances the app's visual identity and reinforces the brand.

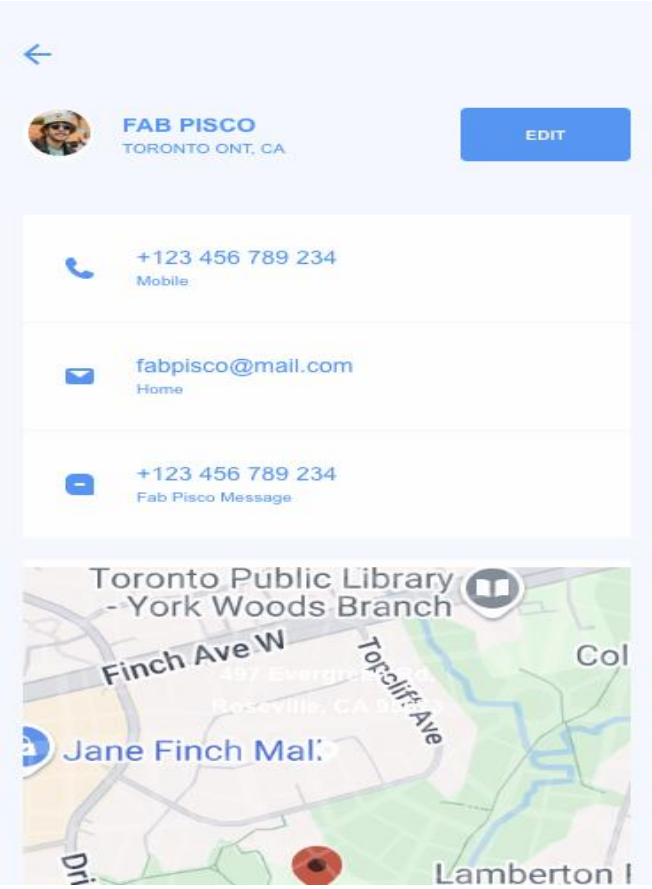


5 - Profile Screen

- **Purpose**: This screen displays the user's profile, providing personal information, app usage statistics, and a brief bio.
- **Design Elements**:
    - **Profile Header**:
        - **Profile Picture**: A circular image representing the user's profile photo.
        - **Name and Location**: The user's name ("Fab Pisco") and location ("Toronto, ON, CA").
        - **Add Icon**: A "+" icon, likely for editing or adding new profile details.
    - **Bio Section**:
        - A brief description about the user, offering a personalized touch to the profile ("Hi! My name is Fab, I'm a creative geek from San Francisco, CA. I enjoy creating eye candy solutions for web and mobile apps. Contact me at FabPisco@mail.com").
    - **Statistics Panel**:
        - Three boxes showing quick stats:
            - **140 Transfers**: Indicates the number of completed transactions or conversions.
            - **140 Requests**: Shows how many requests the user has made.
            - **5 Members**: Displays the number of associated or connected members.
    - **Social Image Section**:
        - A featured photo that may represent recent activities, user interaction, or promotional content.
        - **Engagement Icons**: Heart, comment, and share icons below the image, along with numbers indicating likes (609), comments (120), and shares.

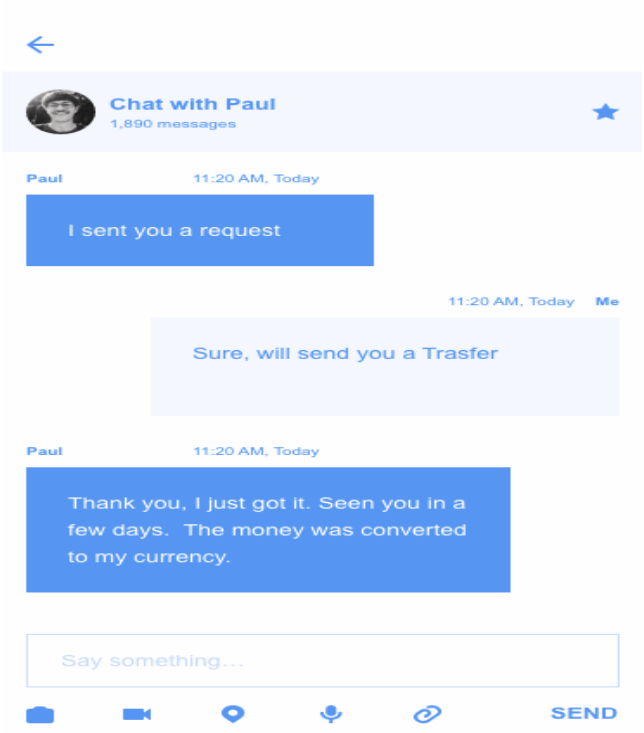
6- Contact Information Screen

- **Purpose**: This screen provides detailed contact information for the user and allows for edits or updates to their contact details.
- **Design Elements**:
  - **Profile Header**:
    - **Profile Picture**: The user's profile photo in a circular frame.
    - **Name and Location**: Displayed as "Fab Pisco" with the location "Toronto, ON, CA."
    - **Edit Button**: A blue "EDIT" button for users to modify their contact information.
  - **Contact Details Section**:
    - **Phone Number**: "+123 456 789 234" labeled as "Mobile," indicating the primary phone contact.
    - **Email**: "fabpisco@mail.com" labeled as "Home," showing the user's primary email address.
    - **Messaging Contact**: A repeat of the phone number with a label "Fab Pisco Message," possibly representing a messaging service or secondary contact method.
  - **Map Section**:
    - Displays a map snippet showing the user's current or saved location, offering a visual reference for their address or nearby landmarks.



7 -Chat Screen

- **Purpose**: This screen facilitates direct communication between users, enabling them to send and receive messages related to transfers or requests within the Convert Master app.
- **Design Elements**:
  - **Header Section**:
    - **Chat Title**: "Chat with Paul" – indicates the current conversation partner.
    - **Message Count**: "1,890 messages" – shows the total number of messages exchanged with the contact, adding context to the relationship.
    - **Star Icon**: Suggests the option to mark this chat as a favorite or important for easy access.
  - **Conversation Area**:
    - **Messages**: Chat bubbles in different colors to distinguish between messages sent by the user and received from the contact.
    - **Timestamp**: Each message includes a timestamp (e.g., "11:20 AM, Today") for reference.
    - **Messages Content**:
      - *Paul*: "I sent you a request"
      - *Me*: "Sure, will send you a Transfer"
      - *Paul*: "Thank you, I just got it. See you in a few days. The money was converted to my currency."
  - **Message Input Area**:
    - **Text Field**: Placeholder text ("Say something…") invites the user to type a new message.
    - **Icons**:
      - **Attachment Options**: Icons representing actions such as attaching files, sending location, or initiating a video call.
    - **Send Button**: A blue "SEND" button to dispatch the typed message.

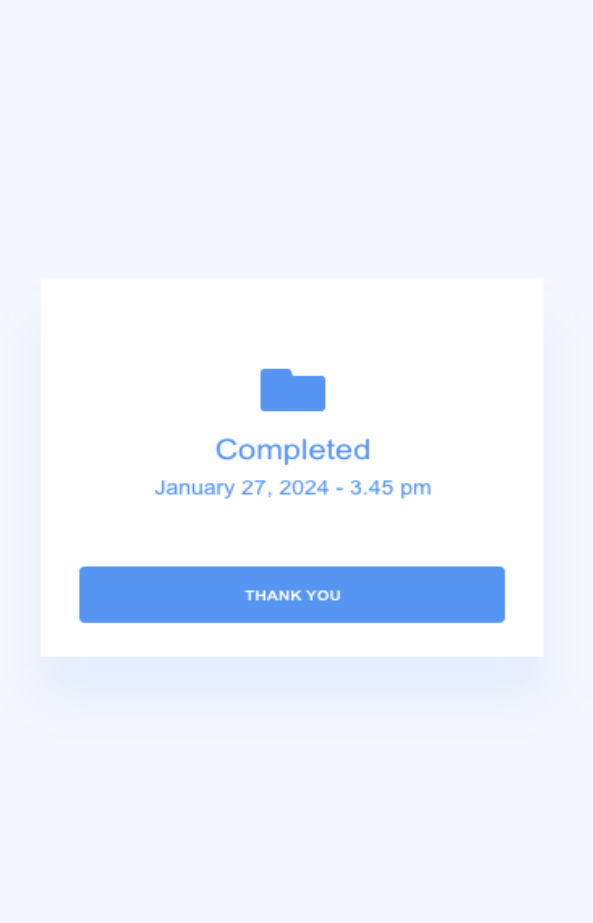


8 - Convert Payment Screen

- **Purpose**: This screen allows users to convert an amount between different currencies and units of measure while reviewing details such as exchange rates and calculated results before proceeding.
- **Design Elements**:
  - **Header**:
    - Title: "CONVERT" – clearly indicates the purpose of the screen.
    - Back Arrow: Allows users to navigate back to the previous screen.
  - **Conversion and Result Toggle**:
    Tabs labeled "FABRICIO" and "REDO" for switching between different conversion modes or functionalities.
  - **Conversion Details**:
    - **Convert Amount**: Displays the amount being converted (€420.00) with a dropdown to select the input currency (e.g., EURO).
    - **Receive Amount:** Shows the calculated converted amount ($468.00) with a dropdown for the output currency (e.g., CA).
    - **Exchange Rate**: A line indicating the current exchange rate (e.g., "€1.00 = $1.34") to inform the user of the conversion rate being applied.
  - **Unit of Measure Conversion**:
    - **From Unit:** Dropdown to select the unit being converted from (e.g., Gallons).
    - **To Unit:** Dropdown to select the target unit of measure (e.g., Liters).
    - **Price Per Unit:** Displays the price per unit in the "From Currency" (e.g., 5).").
  - **Action Buttons**:
    - **"CONVERT" –** A button to initiate the conversion process.
    - **"CONVERSION RESULT"** – A button to view or navigate to the detailed results of the conversion
  - **Footer**:
    - **"CONTINUE"** – Allows users to proceed to the next step after reviewing the conversion details..

9 - Transaction Completion Screen

- **Purpose**: This screen confirms that a transaction has been successfully completed, providing users with a sense of closure and acknowledgment.
- **Design Elements**:
  - **Completion Icon**:
    - A folder or success icon to visually indicate that the transaction is complete.
  - **Completion Message**:
    - Text reading "Completed" assures the user that the transaction has been finalized.
    - **Date and Time**: The exact date and time of the transaction completion are displayed for reference (e.g., "January 27, 2024 - 3:45 PM").
  - **Action Button**:
    - A "THANK YOU" button for the user to acknowledge and dismiss the screen, returning them to the main app interface or next step.



PART II -- Technology Requirements

A) Technological Requirements

- Create a tabular (i.e. table of rows and columns) representation of the technology (for e.g., Database, Programming languages, Framework, Hardware, etc.) that is being planned by your team to build the application/s.
- State pros and cons why each technology is best fit for your application.

Category	Technology	Pros	Cons
Back-end language	PHP	1. Free and open source. 2. Platform independent (ability to run on any OS, for example, Windows, Linux, Unix, macOS etc.). 3. Syntax is simple so it is easy to learn and straight forward to use. 4. Integrates seamlessly with MySQL.	1. Not that secure due to being open source. 2. Poor quality of handling errors. 3. Slower than other languages, like Python for performing concurrent tasks.
Back-end language	JavaScript	1. Can use it for both front-end and back-end development thereby simplifying development. 2. Good at handling real-time data like frequent updates for live exchange rates. 3. Can run on any platform such as Linux, Windows, macOS.	1. Set up can be more complex compared to other back-end set ups like PHP. 2. Security concerns like poor error handling if not carefully managed.
Back-end language	Java	1. Reliable because it is a stable and well tested-language. 2. Portable because it can run on any platform with Java Virtual Machine (JVM). 3. Has many frameworks and libraries (Spring Boot, Hibernate). 4. Has built in security features (strong authentication and encryption mechanisms).	1. More difficult syntax compared to other back-end languages like PHP or Python. 2. Consumes more memory and processing power compared to other languages like Python.
Front-end language	HTML/CSS	1. Easy to learn and supported across all browsers and devices. 2. Easy integration with JavaScript for interactivity and logic.	1. Not able to handle interactivity or logic alone so need back-end language like JavaScript. 2. Need framework like Bootstrap for professional design.
Front-end language	JavaScript	1. Provides dynamic and interactive user interface. 2. Supported by all modern browsers therefore, compatible for web applications. 3. Easy integration with REST API to get updated exchange rates.	1. Performance varies depending on the browser (slower on older devices). 2. Not optimized for heavy computational tasks.

Framework	Bootstrap	1. Easy to use (has pre-designed components that can easily be integrated into webpages). 2. Has lots of customization options for appealing website creation. 3. Time saver due to the use of templates. 4. Has large community of active developers so can get assistance or support if needed.	1. Websites built with Bootstrap look very similar (lack of originality) . 2. Increased page load times when unused code is included on a website.
Data storage location	MySQL	1. Free and open-source, large community for support . 2. Fast database, platform independent (Linux server, Windows server, UNIX, OS/2).	1. Occasional stability issues, poor performance in high loads. 2. Regular maintenance needed, for example backups and monitoring performance.
REST API	Currency Exchange Rate Web Service	1. Free. 2. Returns data in widely used JSON format. 3. Team members have some experience with REST API calls.	1. Reliant on availability of external web service. 2. Structure of REST API may change during our project.
Operating system	Windows	1. Easily accessible, supports many development tools and frameworks 2. Easily install and test major browsers like Chrome, Edge, Firefox.	1. Can be costly compared to free alternatives like Linux.
Operating system	OSX	1. Supports popular development tools and frameworks such as Node.js, PHP and Python. 2. Stable and secure. 3. Strong community support.	1. High cost. 2. Restricted to Apple's hardware.
Web hosting	Bluehost/GoDaddy	1. User-friendly interfaces. 2. Low-cost plans. 3. Wide compatibility (PHP, MySQL etc.), reliable uptime. 4. Website builder templates available.	1. Slower load times during traffic spikes. 2. Vulnerability to security breaches.
Platform	Browser app with support for Chrome, Microsoft Edge, Safari	1. Widely used with combined market share of about 90%. 2. 2. Team members all have access to Windows machines, and some have Apple product to test on Safari. No need for user to update application.	1. Some users may prefer Google Play Store or Apple App Store applications.
Prototyping Tool	Adobe XD	1. User-friendly. 2. One of team members has experience with it 3. Can design functional prototypes with interactive elements.	1. Can be costly. 2. Lacks advanced animation features.
Version Control	GitHub	1. Allows team members to work simultaneously. 2. Option to share project to the public. 3. Code is safely backed up and can be accessed easily with internet connection.	1. Free for public repositories but needs subscription for advanced features. 2. Can be confusing to learn at the beginning.

B) Learning Plan

- Create a tabular (i.e. table) representation of the technical skills required for the development of this application.
- State for each team member the Responsibility and existing skill level (%).
- State the Learning Plan for each team member (for e.g., start date, end date, resource/s, etc.).

Skill	Team Member	Responsibility	Existing Skill Level (%)	Learning Plan
Back End Development	Justin Yeh	• API Development and Implementation • Application Security (e.g. Encryption) • Application Reliability • Testing and Quality Assurance	60%	Start: Nov 21,2024 End: April 21, 2025 Resources: YouTube, Books, Previous School Work, Online Courses
Front End Development	Fab Pisco	• UI/UX Design • Application Reliability • User Testing, Feedback and Quality Assurance	60%	Start: Nov 21,2024 End: April 21, 2025 Resources: YouTube, Books, Previous School Work, Online Courses
Back End Development	Kevin Lapointe	• API Development and Implementation • Application Security (e.g. Encryption) • Application Reliability • Testing and Quality Assurance	60%	Start: Nov 21,2024 End: April 21, 2025 Resources: YouTube, Books, Udemy, Previous School Work, Online Courses
Front End Development	Luilson Sousa	• UI/UX Design • Application Reliability • User Testing, Feedback and Quality Assurance	50%	Start: Nov 21,2024 End: April 21, 2025 Resources: YouTube, Books, Previous School Work, Online Courses

Evaluation guidelines:

Design of Mockup –> 20%

Functionality of Mockup –> 20%

Technology Requirements, Learning Plan → 20%

Teamwork (based on Peer Evaluation) –> 40%

For any documents submitted on Brightspace, use the following naming convention “F24_T<your team number>_<appropriate name>”. For example, F24_T99_MockUp.pdf, F24_T99_TechReq.doc

Only 1 submission per team is required.