Connect Easy (LHL - Final Project)

Project Overview

Connect Easy - Everything you need to manage your business as a service professional! Schedule meetings, host video calls, and collect payments all in one place.

Connect Easy is a single-page application where Consultants can meet their Clients.

Main Features:

- Online video session (consultancy)
- Schedule Meetings
- Notes
- Re-watch/download meeting recordings
- Payment

Stretches:

- Automated Meeting Minutes / Transcription
- Timestamp
- Terms of agreement
- Invoicing after a meeting (.pdf format)

Document Version Control

Version	Date	Author(s)	Notes
1.0	06/26/2022	Dongwan Kim Iksung Choi Rafael Nobrega	Initial Draft V1

1. Background

1.1 Terms and Definitions

1.1.1 Priorities

P0	Launch requirements - Must be completed before the initial launch
P1	Critical to project success, but not launch blocking
P2	Additional features that will be needed in the future

1.2 Project Scope

The below identifies the primary parameters used to define the scope of supported populations, user groups, and product functionality. The subsequent sections include more detailed requirements regarding use cases each must address.

#	Parameter	Scope
1	Geographical Locations	P0: Canada
2	User Types	P0: Client, Professional
3	Meeting Types	P0: Video Call P1: Chat
4	Product Platform	P0: Desktop
5	Language	P0: English

1.3 Users

User Type	Definition/Characteristics	Priority
Admin	• *Connect Easy* Employees	P1
Consultant	• Interested in providing professional service • Interested in managing calendar of meetings	P0
Client	• Looking for a professional advice	P0

	● Interested in booking appointments with consultants	

2. Project Requirements

The below requirements are intended to address the following key questions that will inform the technical design of *Connect Easy*:

1) What features/components should exist;
2) What information should each display and;
3) Are these features static or dynamic (interactive).

2.1 Business Requirements

2.1.1 Permission Model

#	Requirement	Priority
2.1.1.1	**User**	
2.1.1.1.1	A user is an entity such as an individual or a business. Represents a user account.	P0
2.1.1.1.2	A user is identified by an id.	P0
2.1.1.1.3	A user itself does not have any permissions.	P0
2.1.1.1	**Role**	
2.1.1.2.1	A role defines a list of permissions.	P0
2.1.1.2.2	A role can be assigned to any user.	P0
2.1.1.2.3	Multiple roles can be assigned to a user.	P0
2.1.1.2.4	The role types are: ● Admin ● UnregisteredUser ● RegisteredUser ● Consultant	P0
2.1.1.2.5	**A**(dmin), **U**(nregisteredUser), **R**(egisteredUser), **C**(onsultant) Permissions define what one can do. Permissions are as following: ● Root: Full Privilege	P1

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Action

Can Create

New appointment: A, R
Video Conference Session: A, R, C
Accounts: A, U

Can Search

Consultants: A, R, C
Accounts: A

Can Update

Existing appointments: A, R, C
All account: A
Own account: A, R, C

Can Delete

Appointment: A, R, C
Accounts: A, R, C

Can Send

Notifications: A

Can See

Appointment: A, R, C
All accounts: A
Own account: A, R, C

Can Verify

Consultant: A

Can Access

Admin UI: A
Client UI: A, R
Unregistered User UI: A, U, R, C
Consultant UI: A, C

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2.1.2 Account

#	Requirement	Priority
2.1.2.1	**App Root User**	
2.1.2.1.1	Root user exists with the Root permission.	P0
2.1.2.2	**Account Registration**	
2.1.2.2.1	An account can be created locally.	P0
2.1.2.2.2	An account can be created using: • First name	P0

<table>
<tr><td></td><td>Last name
Email
Password
Creation date (automatically captured)</td><td></td></tr>
<tr><td>2.1.2.2.3</td><td>Account should have the option to save the following information persisted upon successful creation:
Full Address
Location
Country
Province
City
Postal Code
User should be able to provide either the postal code or country/province/city.
Profile Picture</td><td>P1</td></tr>
<tr><td>2.1.2.2.5</td><td>A consultant account should have the following information persisted upon successful creation:
Mandatory
Profile Picture
Creation date
Email
Name of the Business
Full Address
Phone Number
Certificate/License/Business proof
Optional
Description</td><td>P1</td></tr>
<tr><td>2.1.2.2.6</td><td>A consultant account should be in the pending state upon creation until Admin verifies the identity and approves it.</td><td>P1</td></tr>
<tr><td>2.1.2.2.7</td><td>A consultant account should not be accessible by the account owner until approved. When tried, there should be an appropriate/informative error message.</td><td>P1</td></tr>
<tr><td>2.1.2.2.8</td><td>A user can select one of the account types upon account creation: Client, Consultant</td><td>P0</td></tr>
<tr><td>2.1.2.2.9</td><td>Admin account type should be displayed and permitted only if the user is already logged in as an admin.</td><td></td></tr>
<tr><td>2.1.2.2.10</td><td>A client account should be assigned RegisteredUser role.</td><td>P0</td></tr>
<tr><td>2.1.2.2.11</td><td>A consultant account should be assigned Consultant role.</td><td>P0</td></tr>
<tr><td>2.1.2.2.12</td><td>An admin account should be assigned Admin role.</td><td>P0</td></tr>
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2.1.3 Account Settings Page - Client

#	Requirement	Priority
2.1.3.1	**Account Information**	
2.1.3.1.1	Should be able to see all the mandatory information about the account and options.	P0
2.1.3.1.2	Clients can put their credit card information.	P0
2.1.3.2	**Account Update**	
2.1.3.2.1	Should be able to modify one's information, including the password, except for the id.	P0
2.1.3.2.2	Should be extensible. Should organize settings in sections or tabs as there will be additional features for the account page in the future.	P0
2.1.3.2.3	Should provide a button to save, which should prompt confirmation when clicked.	P0
2.1.3.2.4	Should provide a button to cancel changes which should prompt for confirmation when clicked if there are unsaved changes.	P0
2.1.3.2.5	Basic validation should be provided for eligible attributes such as email addresses.	P0
2.1.3.2.6	An update should be recorded for auditing purposes.	P2

2.1.4 Account Settings Page - Consultant

#	Requirement	Priority
	Should offer all the features from the Client account page.	P0

2.1.5 Admin UI - Admin

#	Requirement	Priority
	Should offer all the features from the Client account page.	P0
2.1.5.1	**Account Search**	
2.1.5.1.1	The search page should display all accounts of all types available in	P1

	the database.	
2.1.5.1.2	The list should provide pagination.	P1
2.1.5.1.3	The list should display a summary which includes at least id, name, email, type, and status.	P1
2.1.5.1.4	Accounts should be searchable/filterable using any fields.	P1
2.1.5.1.5	Should be able to set the number of accounts displayed per page. The setting should be persisted per user permanently.	P1
2.1.5.2	**Account Control**	
2.1.5.2.1	Should be able to select one or more accounts and disable them.	P1
2.1.5.2.2	Shouldn’t be able to log in to disabled accounts.	P1
2.1.5.2.3	Should be able to select one or more accounts and reactivate them.	P1
2.1.5.2.4	Should be able to select one or more accounts and delete them.	P1
2.1.5.2.5	Should be able to click one account and edit its details. Everything should be editable by an admin except for the creation date.	P1
2.1.5.2.6	The search result should not reset when the user checks an account’s information.	P1
2.1.5.2.7	Any action should be recorded for auditing purposes.	P1

2.1.6 Consultant UI - Consultant

#	Requirement	Priority
2.1.6.1	**Availability**	
2.1.6.1.1	A consultant should be able to create the available time slots based on the chosen day, start time, and end time.	P0
2.1.6.1.2	A consultant should be able to edit or delete their availability.	P0
2.1.6.1.3	The consultant should be able to synchronize their appointments with an external calendar provider (Google/Outlook).	P1
2.1.6.2	**Home**	
2.1.6.2.1	Shows a total number of upcoming appointments	P0

2.1.6.2.2	Shows a total number of appointments	P0
2.1.6.2.3	Shows a button to create an appointment	P2
2.1.6.2.4	Shows the upcoming appointments in calendar	P0
2.1.6.2.5	Shows a button to start the video call	P0
2.1.6.2.6	Shows client details	P0
2.1.6.2.7	Shows a dropdown for choosing upcoming/past/cancelled appointments	P0
2.1.6.2.8	By default shows the list of the upcoming appointments	P0
2.1.6.2.9	The appointment list selected from the dropdown should provide pagination	P0
2.1.6.3	**Payments - Dashboards**	
2.1.6.3.1	Shows the summary/dashboard of received payments	P0
2.1.6.3.2	Reports - charts, graphs	P1
2.1.6.4	**Appointment History**	
2.1.6.4.1	A consultant can see the list of appointments history.	P0
2.1.6.4.2	A consultant can click on a specific appointment on the history list to see detailed information.	P0
2.1.6.4.3	A consultant can playback the appointment recording.	P1
2.1.6.4.4	A consultant can see the transcription of the appointment video	P1
2.1.6.4.5	A client can see all details of the appointment ● Consultant name ● Consultant contact ● Consultation date ● Invoice	P0

2.1.7 Client UI Page - Client

#	Requirement	Priority
2.1.7.1	**Client Shopping Page**	
2.1.7.1.1	A client should be able to search the services they are looking for by	P0

	using the search bar.	
2.1.7.1.2	A client should be able to filter the results by: ● Category ● Price ● Country ● Date	P0
2.1.7.1.3	A client can click on the product and view the detailed product page.	P0
2.1.7.1.4	A client can add a product to the wishlist	P2
2.1.7.2	**Client's Appointment Booking Page**	
2.1.7.2.1	A client can see the Consultant's calendar and its availability by clicking on a specific day of the month.	P0
2.1.7.2.2	A client will only see the available spots for the selected day. A client will not see the Consultant's booked appointments (by other clients).	P0
2.1.7.2.3	A client can see a "Next" button upon clicking on a specific time slot.	P0
2.1.7.2.4	A client will be prompted with a Summary of the desired appointment after clicking on the "Next" button. The Summary will show the following information: ● Date and time ● Link to a video call: ● Information about the consultant ○ Name ○ Email ● Cancelation option	P0
2.1.7.3	**Appointment History**	
2.1.7.3.1	A client can see the list of appointments history.	P0
2.1.7.3.2	A client can click on a specific appointment on the history list to see detailed information.	P0
2.1.7.3.3	A client can playback the appointment recording video/audio.	P1
2.1.7.3.4	A client can see the transcription of the appointment video	P1
2.1.7.3.5	A client can see all details of the appointment ● Consultant name ● Consultant contact ● Consultation date ● Invoice	P0
2.1.7.4	**Payment Setting**	
2.1.7.4.1	A client can see Stripe's credit card form	P0

2.1.7.4.2	A client can click on a “Save” button to save the credit card information	P0
2.1.7.4.3	When credit card is saved, the form will be disappear and only show the minimum information	P1
2.1.7.4.4	A client can click a button to set one credit card as a primary card	P1

2.1.8 Video Call Page

#	Requirement	Priority
2.1.8.1	**UI**	
2.1.8.1.1	Client and Consult can see the video frame	P0
2.1.8.1.2	Users can see muted/camera off indicator	P0
2.1.8.1.3	Users can see buttons • Share screen • Mute • Camera on/off • Record • Chat • Participants • Note • End	P0 P1-orange
2.1.8.1.4	Highlights the video frame when a person speaks	P1
2.1.8.1.5	Users can see the recording badge on top of the screen	P1
2.1.8.2	**Functional**	
2.1.8.2.1	Users can click on share screen button to share their screen	P0
2.1.8.2.2	Users can click on the mute button to mute their self	P0
2.1.8.2.3	User can click on camera on/off button	P0
2.1.8.2.4	Users can read/write/send chat	P1
2.1.8.2.5	Consultant should be able to start/stop recording	P1
2.1.8.2.6	Users can see a list of participants in the appointment	P1
2.1.8.2.7	Users can take notes while in the appointment	P1

2.1.8.2.8	Users can click a “End” button to end the session	P0
2.1.8.2.9	When appointment is ended, - Pop-up about the details on appointment - user-> history/:appointmentID - consultant-> history/:appointmentID	P0

2.2 Technical Requirements

2.2.1 Tech Stack

#	Requirement	Priority
2.2.1.1	Frontend: React, Redux-toolkit, Socket-React, WebRTC-React, Material UI and Styled Component, React-Big-Calendar	P0
2.2.1.2	Backend: Node.js, Express, Socket.IO, WebRTC and JWT for User Authentication	P0
2.2.1.3	Database: MongoDB	P0
2.2.1.5	Payment API: Stripe API, Paypal API	P0
2.2.1.6	3rd Party API: SendGrid, Twilio	P1
2.2.1.7	FE TEST: Jest, Storybook, Cypress	P2
2.2.1.8	BE TEST: Jest / Cypress	P2

2.2.2 Development

#	Requirement	Priority
2.2.2.1	Github Repository	P0
2.2.2.2	Continuous Deployment Pipeline should be setup.	P2

2.2.3 Images

#	Requirement	Priority

2.2.3.1	All images provided upon the creation of a new account should be resized optimally for mobile and desktop.	P0
2.2.3.2	S3 should contain all the (resized) versions of the images in addition to the original images. The original images can potentially be used to create additional versions for other resolutions in the future.	P0
2.2.3.3	Appropriate resized images should be used on the UI, not the original image.	P0

2.2.4 Testing

#	Requirement	Priority
2.2.4.1	Unit Tests (MIN 70% coverage)	P1
2.2.4.2	Backend Integration Tests	P1
2.2.4.3	Frontend UI Tests	P1

2.2.6 Audit

#	Requirement	Priority
2.2.6.1	All API calls should be logged with the user id, user location, datetime, and payload.	P1
2.2.6.2	Clickstream data should be collected.	P1

2.2.7 Auth

#	Requirement	Priority
2.2.7.1	Authorization should be done at the API level, as well as the UI level where appropriate.	P0