THE NEEDS DOCUMENT

OF

THE FABLAB BICOL APPOINTMENT PROJECT

1. INTRODUCTION

The customers wanted to have printed designs for their products. The customer found it hard to settle a request from a business to manage an appointment at a given time even though they have an online platform to use. Usually, businesses leave their notification unchecked, which would result in unnecessary delays for the customers. The customer's difficulties in requesting their appointment from the business have been inconsistent and inefficient in terms of services.

FabLab Bicol is a business located on Bicol University East Campus that offers services for product consultation, 3D scanning and printing, printing and cutting, and embroidery. Currently, their way of making an appointment is through the means of Facebook and Google Forms, requiring more manual effort from a person to approve a request.

This Project aims to manage appointments, notify users of requests and pending appointments through a mobile app, and for the customers to have a website to view the availability of appointments and reserve them.

2. MISSION STATEMENT

The mission of this project is to provide the following:

1. A web-based appointment system that allows the customers to book online appointments.

Web-based technology allows a wide range of customers to be able to set appointments remotely through their own computers. This serves as a more convenient, more accessible appointment medium.

2. An administration system that manages business requests and appointments from the customers.

This administration system serves as a secure operating medium available only on authorized computers operated by authorized personnel to manage customer appointments. Administrators could also access the customer appointments database through this system.

3. A notification system that notifies users of new appointment requests, and pending appointments.

In conjunction with the appointment and administration system, a notification system would provide real-time notifications and alerts for requests of appointments and current pending appointments.

3. TECHNICAL OBJECTIVES

1. A web-based appointment system that allows customers to book online appointments through a user-friendly interface.	
Technical Objectives	**Performance Measures**
— Create a website that allows users to make an appointment for their convenience.	— Presence of an appointment module — Users must be able to book appointments in the system.
— Create a website that prompts the users to provide the purpose/reasons for their appointment.	— Presence of a form in the appointment module — Users must be able to select and enter their purpose/reason for their appointment.
— Create a website that prompts the users to select their preferred date and time for their appointment.	— Presence of a date and time picker in the appointment module — Users must be able to select their preferred date and time for their appointment,
— Create a website that lets the users confirm their entered information.	— Presence of a confirmation page — Users must be able to review their inputted information, and confirm once they are satisfied

— Create a website that notifies the users about the status of their appointment.	— Presence of a notification module — Users should be notified through their inputted email and contact number.
— Create a website that can cancel a user's appointment.	— Presence of a cancellation module — Users must be able to cancel their appointment by entering their appointment ID in the module.

2. An administration system that manages business requests and appointments from customers.	
Technical Objectives	**Performance Measures**
— Create a desktop application that allows the user to manage appointments.	— Presence of a management module. — Users must be able to view, edit, and delete appointments.
— Create a desktop application that allows the user to approve appointments.	— Presence of an approval module. — Users must be able to approve and deny appointment requests.
— Create a desktop application that notifies the user of	— Presence of a notification module.

requested, and pending appointments.	— Users should be notified through the notification system of the OS and a section of the desktop application.
— Create a desktop application that lets the user set available and unavailable days and times for requesting appointments	— Presence of a module to limit and set the range for appointment dates and times. — Users in the website app should be able to only select available days and times in the appointment module.
— Create a desktop application that is only accessible to authorized users.	— Presence of an authentication system. — Users must be able to log in and out of the system.

3. A notification system that notifies users of new appointment requests, and pending appointments.	
Technical Objectives	**Performance Measures**
— Create a mobile application to notify users about new appointment requests, and pending appointments.	— Presence of a notification module. — Users must be notified through the notification system of the OS and a section of the mobile application.

— Create a mobile application for users to quickly approve or deny appointment requests.	— Presence of an approval module. — Users must be able to approve or deny appointment requests through the mobile application.

4. SCOPE AND LIMITATIONS

This project is concerned with providing an appointment system that serves as an intermediary medium between FabLab Bicol and its customers. Customers are able to make appointments through the web whenever they are to avail the products and/or services offered by FabLab Bicol. Authorized administrators receive and manage these appointments through a desktop-based application. and; Appointment records are also kept in the system's database.

The project is mainly to serve as a software that provides convenience and efficiency in FabLab's appointment matters and not a direct attempt to boost sales. This system also does not assume responsibility for fraud, scams, and similar malicious acts from bogus customers, may it be business-related or not.

This project is expected to complete in 2 months due to the time constraints on the developers' side.

CONCEPTUAL FUNCTIONAL MODEL

OF

THE FABLAB BICOL APPOINTMENT PROJECT

Technical Objectives:

- Create a website that allows users to request and reserve appointments.
- Create a desktop application that allows users to view customer appointment requests and options to approve or deny requests, and set dates and days for available appointments.
- Create a mobile application that notifies users of new appointment requests, and have the ability to quickly approve or deny them.

OPERATIONAL SCENARIO

A user visits the website to request an appointment. At the front page, the user will be shown an introduction of the organization, and their services. There will be a login and register button. Clicking it will redirect them to their respective pages.

The login page shows a form asking for the email address and password. Successful logins will redirect the user to the dashboard.

The registration page shows a form asking for their name, email address, phone number, and password. After registering, they will be redirected to the login page.

The dashboard page shows the user's past appointments, and the status of requested appointments. There will be a button titled "Request an appointment", which when clicked redirects the user to the Appointment Request page.

The Appointment Request page will first show text fields for entering basic information such as their full name, their email, their contact number, and their purpose. There will also be a calendar and a clock where it indicates available appointments. An occupied date and time would be colored red, and cannot be selected. Once fields are filled and a date and time is selected, a button titled “Next” can be clicked, which when clicked redirects the user to the Confirmation page.

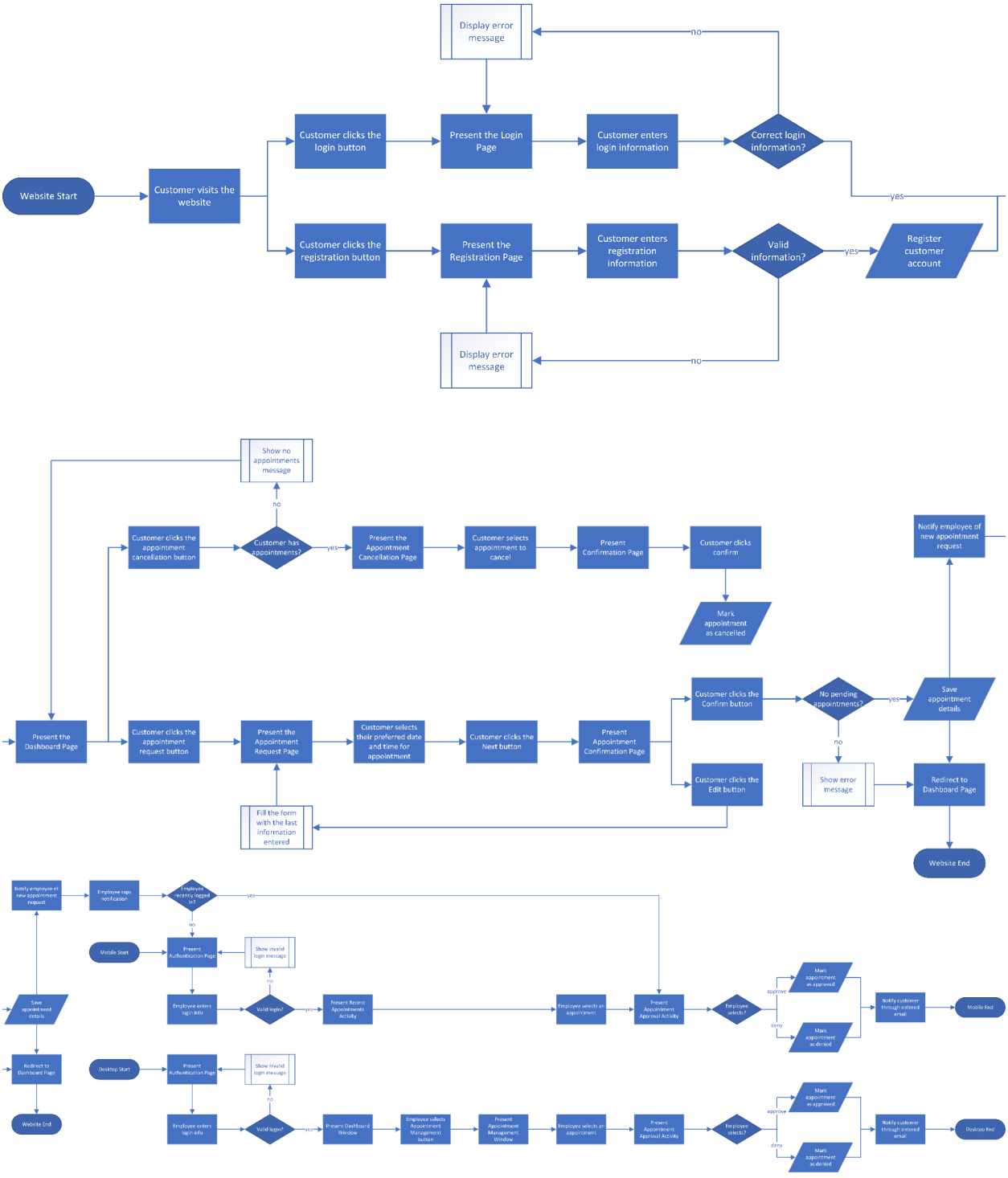
The confirmation page shows what the user has inputted, giving the user a second look before they submit. A button titled “Edit” when clicked would redirect them back to the Appointment Request page with the information they have filled, letting them edit. Once a user is sure and satisfied, they can click the button titled “Confirm” to send the request into the system. They will be redirected back to the front page with a successful alert message if the request is sent successfully. If an error occurs, they will not be redirected; an error message will pop up and they may try again to send if it is possible.

Once a user from the website successfully sends an appointment request, the notification system will notify the user about an appointment request through their phone, and the user will have the option to approve or deny the request. The desktop app will also notify the user of a new appointment request, and they also have the option to approve or deny the request. The mobile application will be protected by an authentication system to deny unauthorized users.

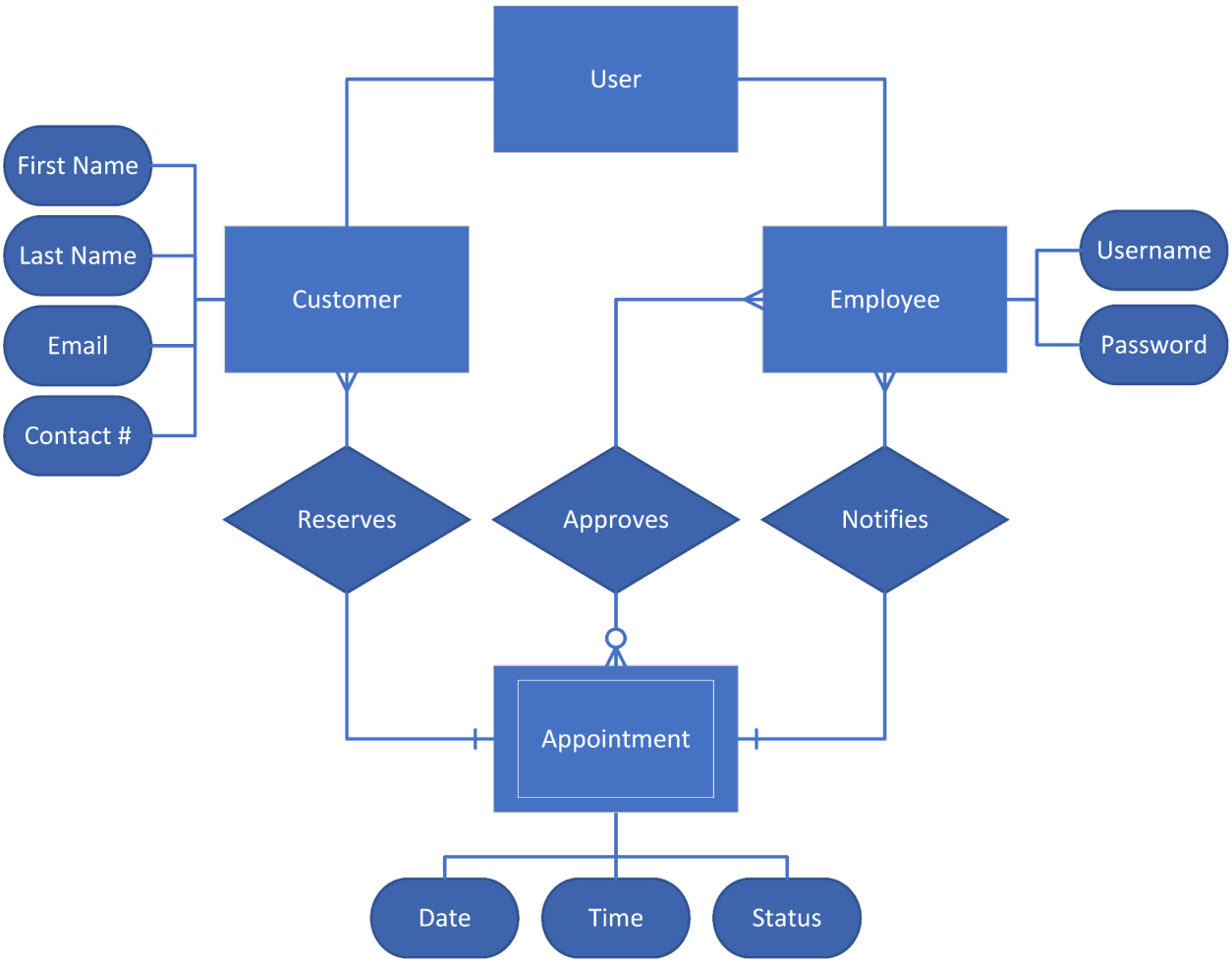
The desktop application lets Employee set available dates and times for appointments and unavailable dates and times, and setting these also updates the website data accordingly. Employee can approve or deny appointment requests, and are able to modify and

delete these appointments. The desktop application will be protected by an authentication system to deny unauthorized users.

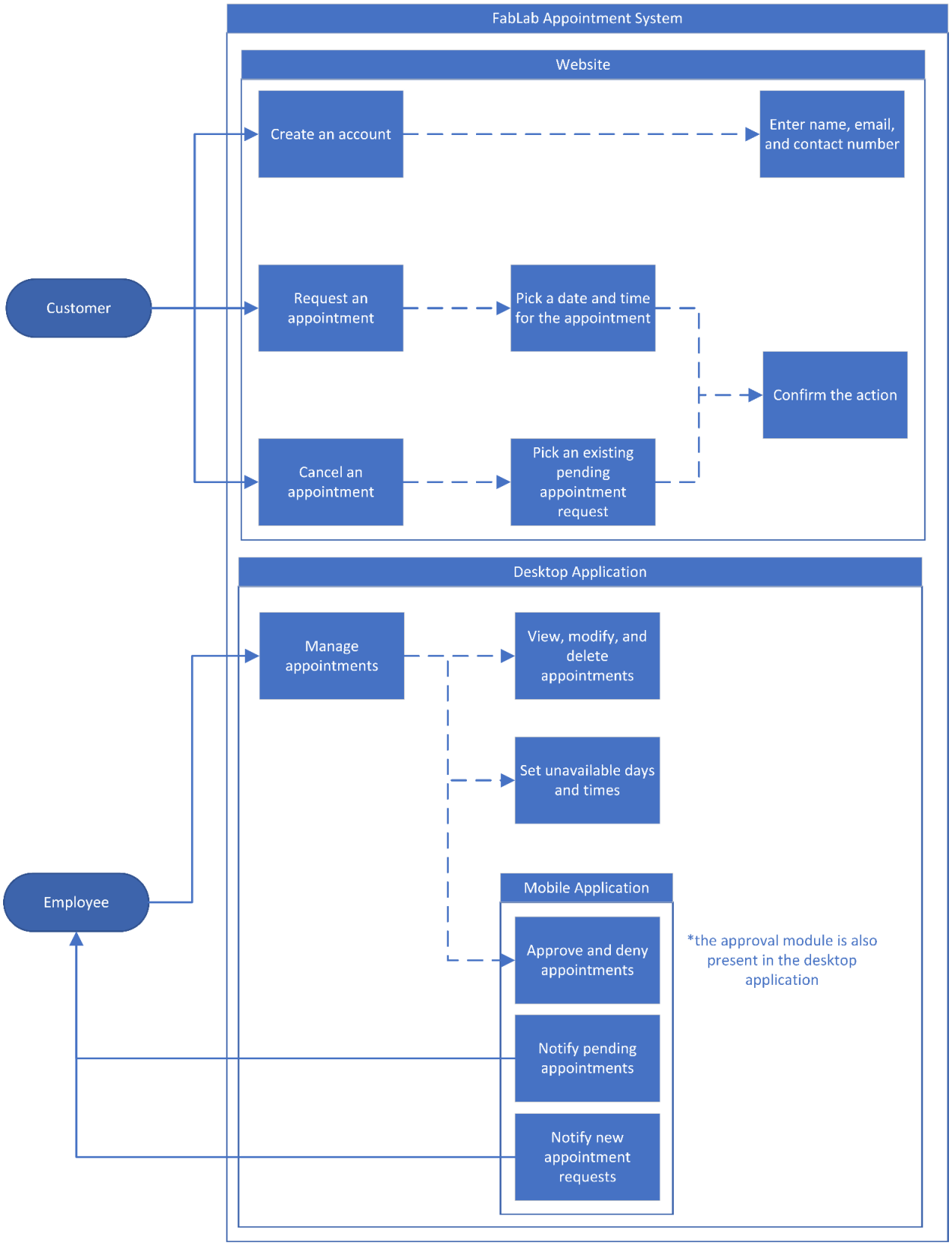
ACTIVITY DIAGRAM - FUNCTIONAL ANALYSIS



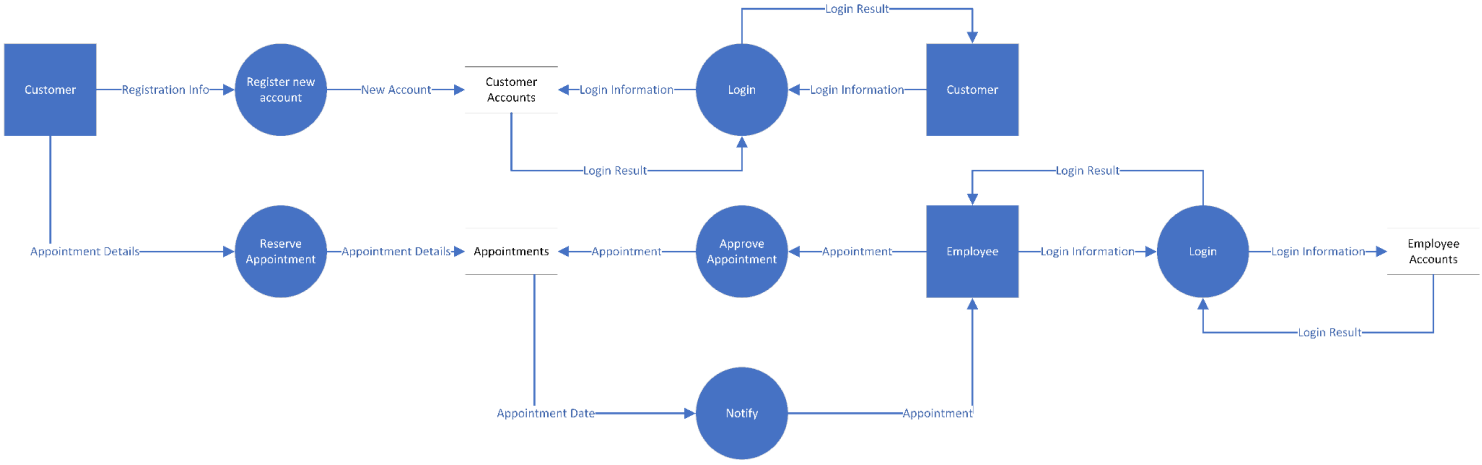
ERD - DATA ANALYSIS



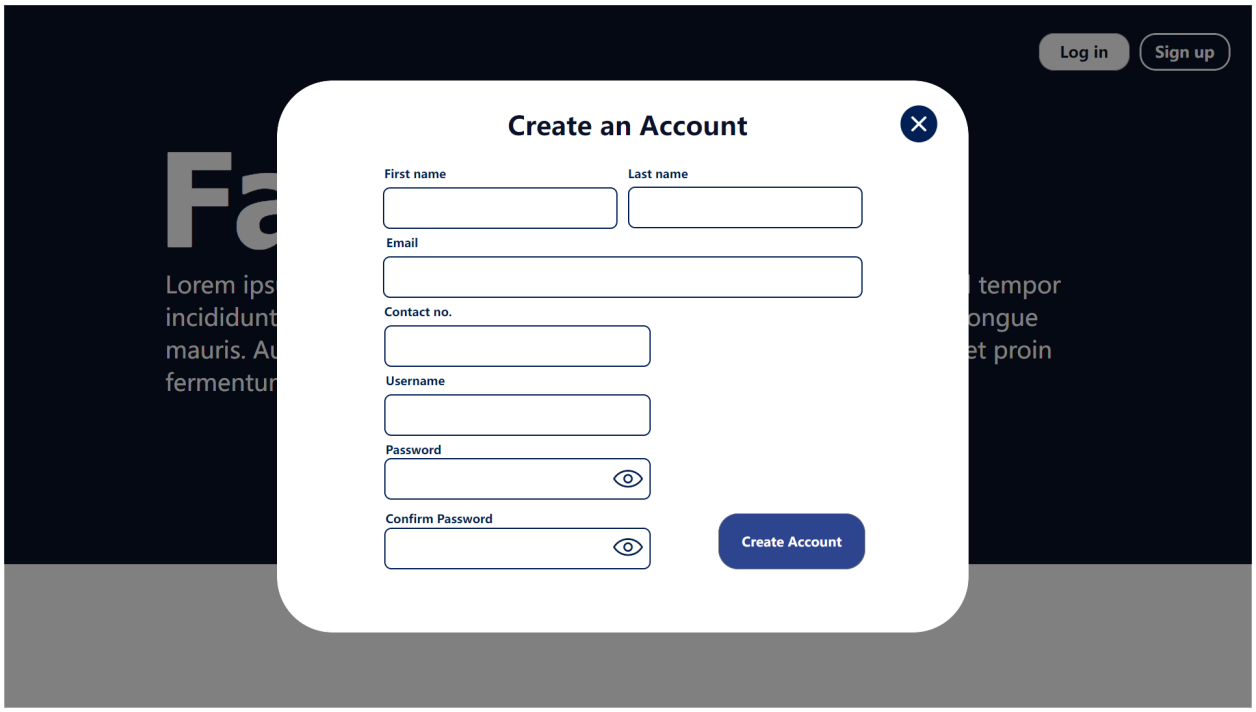
USE-CASE DIAGRAM - BEHAVIOR ANALYSIS

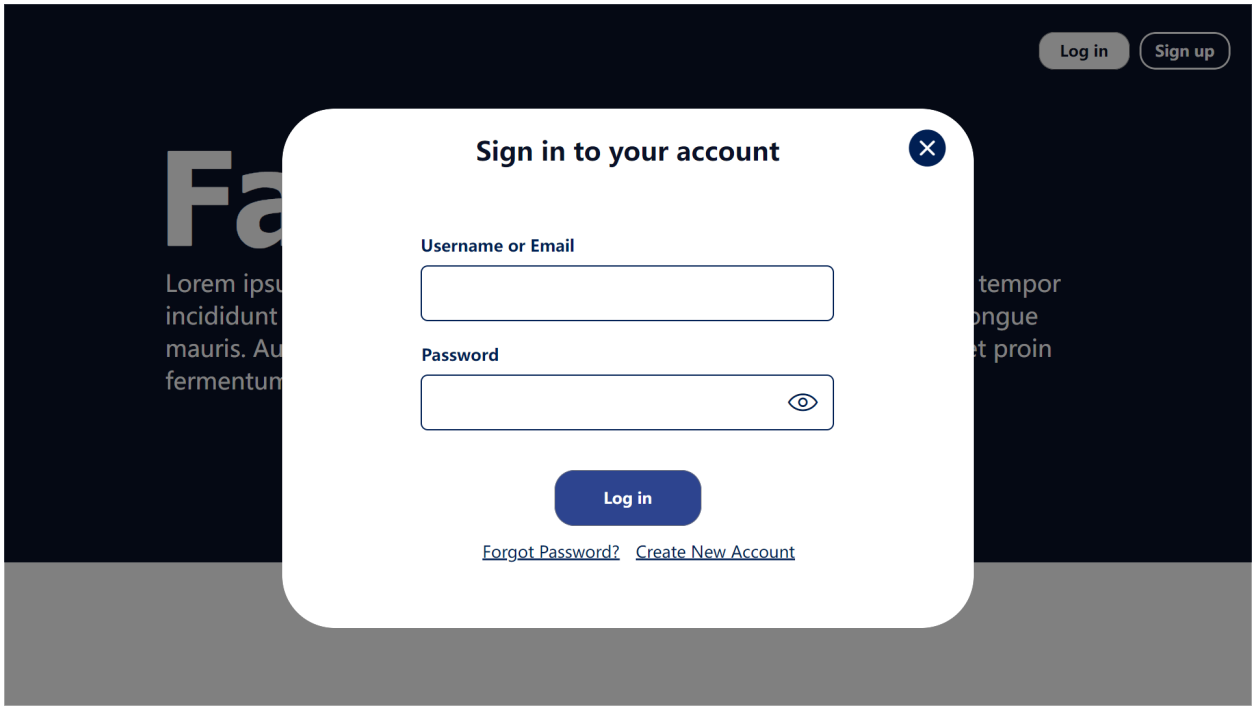


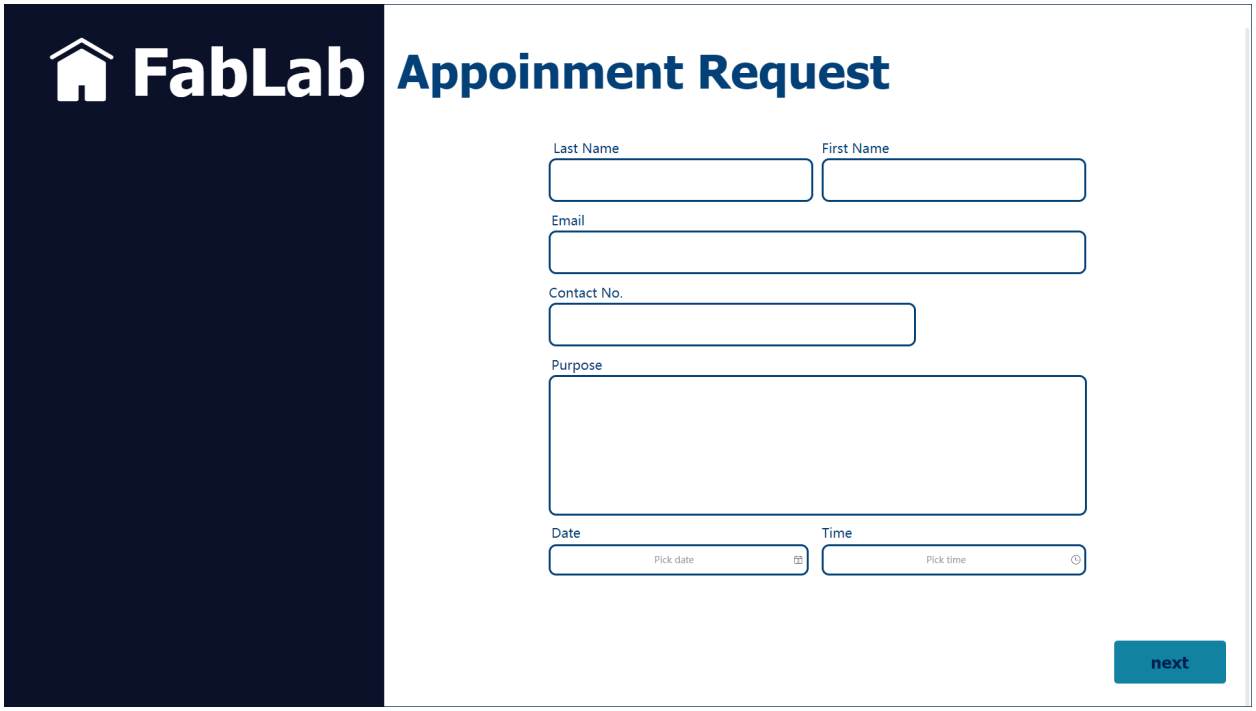
DATA FLOW DIAGRAM - DATA FLOW ANALYSIS

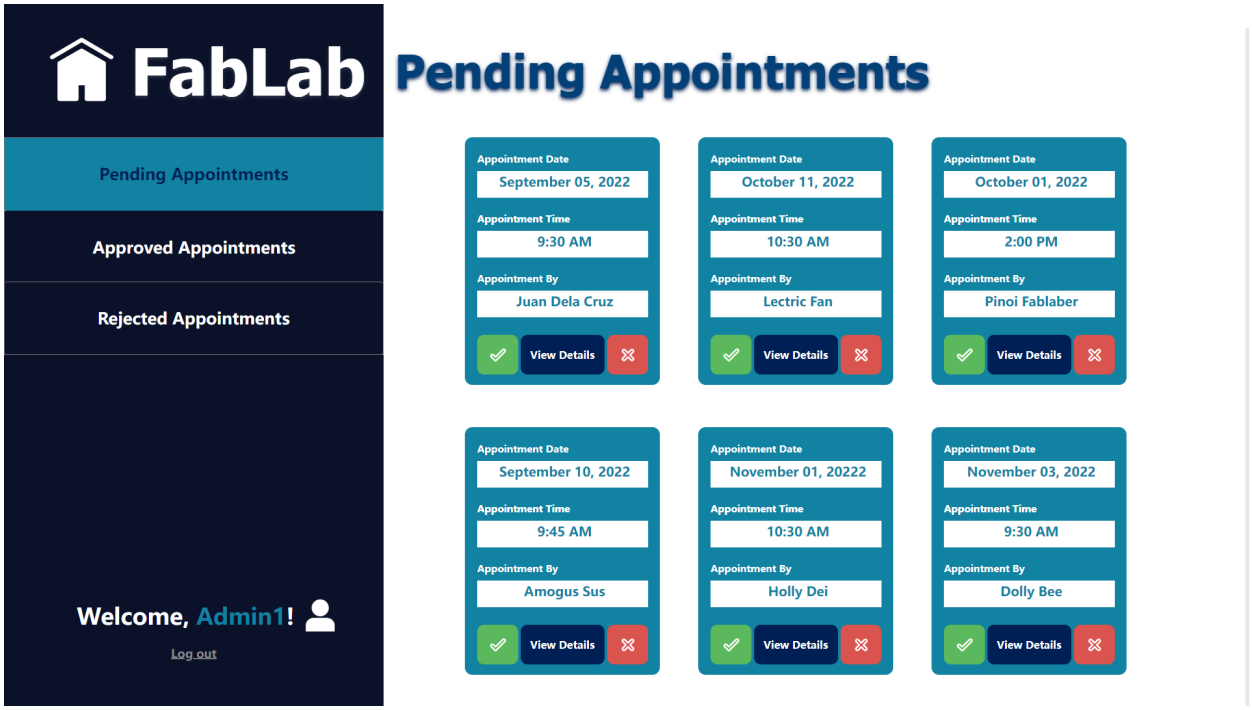


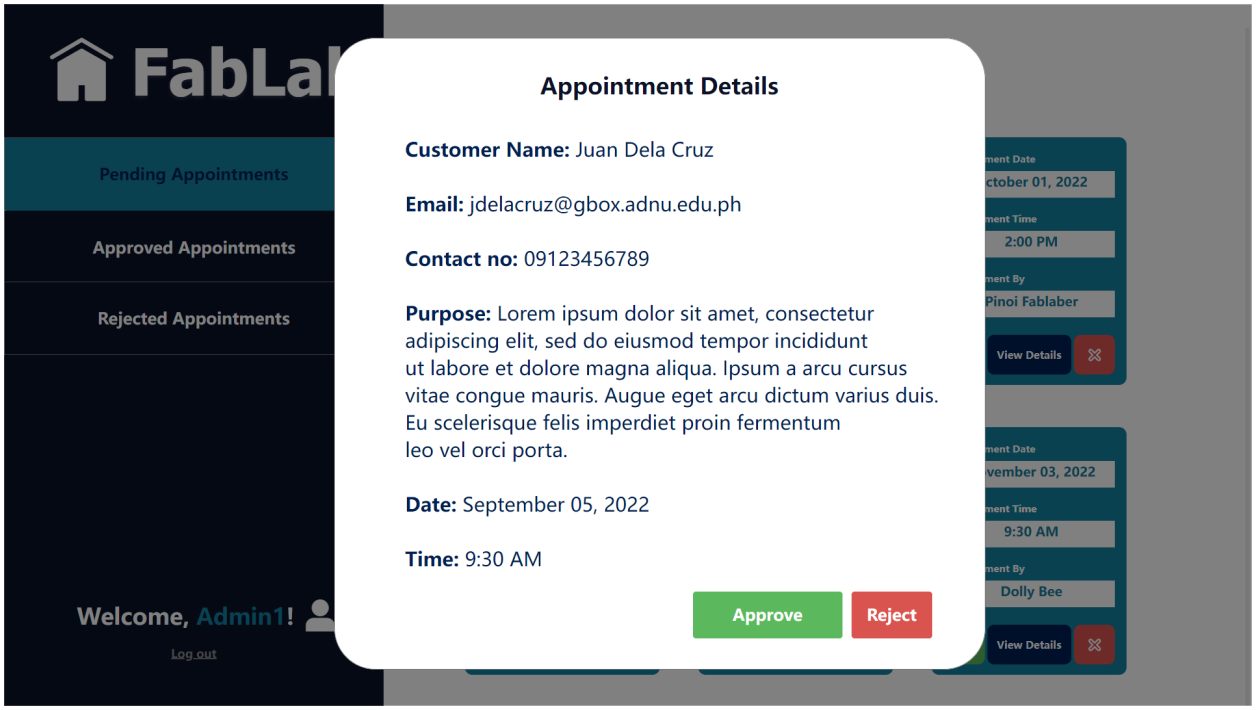
MOCK SCREENSHOTS - UI/UX ANALYSIS

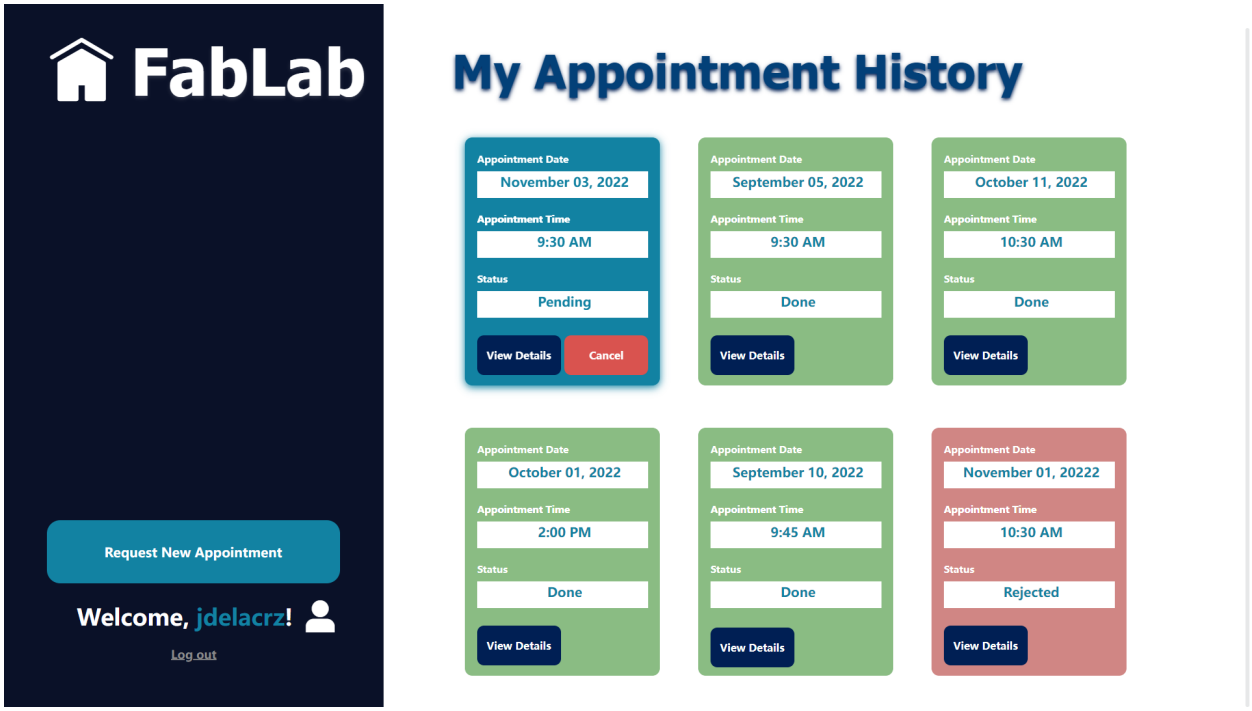



Log in
Sign up
Sign in to your account
Username or Email
Password
Log in
Forgot Password?
Create New Account


FabLab
Appoinment Request
Last Name
First Name
Email
Contact No.
Purpose
Date
Pick date
Time
Pick time
next


FabLab
Pending Appointments
Approved Appointments
Rejected Appointments
Welcome, Admin1!
Log out
Pending Appointments
Appointment Date
September 05, 2022
Appointment Time
9:30 AM
Appointment By
Juan Dela Cruz
View Details
Appointment Date
October 11, 2022
Appointment Time
10:30 AM
Appointment By
Lectric Fan
View Details
Appointment Date
October 01, 2022
Appointment Time
2:00 PM
Appointment By
Pinoi Fablaber
View Details
Appointment Date
September 10, 2022
Appointment Time
9:45 AM
Appointment By
Amogus Sus
View Details
Appointment Date
November 01, 20222
Appointment Time
10:30 AM
Appointment By
Holly Dei
View Details
Appointment Date
November 03, 2022
Appointment Time
9:30 AM
Appointment By
Dolly Bee
View Details


FabLa
Pending Appointments
Approved Appointments
Rejected Appointments
Welcome, Admin1!
Log out
Appointment Details
Customer Name: Juan Dela Cruz
Email: jdelacruz@gbox.adnu.edu.ph
Contact no: 09123456789
Purpose: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ipsum a arcu cursus vitae congue mauris. Augue eget arcu dictum varius duis. Eu scelerisque felis imperdiet proin fermentum leo vel orci porta.
Date: September 05, 2022
Time: 9:30 AM
Approve
Reject
ctober 01, 2022
2:00 PM
Pinoi Fablaber
View Details
vember 03, 2022
9:30 AM
Dolly Bee
View Details


FabLab
Request New Appointment
Welcome, jdelacrz!
Log out
My Appointment History
Appointment Date
November 03, 2022
Appointment Time
9:30 AM
Status
Pending
View Details
Cancel
Appointment Date
September 05, 2022
Appointment Time
9:30 AM
Status
Done
View Details
Appointment Date
October 11, 2022
Appointment Time
10:30 AM
Status
Done
View Details
Appointment Date
October 01, 2022
Appointment Time
2:00 PM
Status
Done
View Details
Appointment Date
September 10, 2022
Appointment Time
9:45 AM
Status
Done
View Details
Appointment Date
November 01, 20222
Appointment Time
10:30 AM
Status
Rejected
View Details

PHYSICAL ALLOCATION MODEL

Task	Assigned To	Approximation of Time Needed
Installation of needed development tools	Everyone	3 hours
Website Tasks		
Front-end for Home/Landing page	Llesol	3 days
Front-end for Login page	Albano	1 day
Front-end for Registration page	Albano	1 day
Front-end for Dashboard page	Albano	2 days
Front-end for Appointment Request page	Llesol	1 weeks
Front-end for Appointment Cancellation page	Llesol	1 day
Front-end for Confirmation page	Llesol	1 day
Customer Account (Login/Register) Module	Serrano	3 days
Appointment Request Module	Serrano	1 day

Appointment Cancellation Module	Serrano	1 day
Confirmation Module	Serrano	1 day
Desktop App Tasks		
Employee Login UI	Albano	1 day
Dashboard UI	Albano	2 days
Appointment Management UI	Albano	1 week
Employee Account Module	Serrano	1 day
Appointment Management Module	Serrano	1 week
Mobile App Tasks		
Mobile UI	Serrano	1 week
Authentication Module	Serrano	1 day
Appointment Approval Module	Serrano	2 days
Notification Module	Serrano	3 days

Gantt Chart

			October													
			Week 1							Week 2						
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Tasks	**Assigned To**	**Time Needed**	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Installation of needed development tools	Everyone	3 hours															
Front-end for Home/Landing page	Llesol	3 days															
Front-end for Login page	Albano	1 day															
Front-end for Registration page	Albano	1 day															
Front-end for Dashboard page	Albano	2 days															
Front-end for Appointment Request page	Llesol	1 week															
Front-end for Appointment Cancellation page	Llesol	1 day															
Front-end for Confirmation page	Llesol	1 day															
Customer Account (Login/Register) Module	Serrano	1 day															
Appointment Request Module	Serrano	3 days															
Appointment Cancellation Module	Serrano	1 day															
Confirmation Module	Serrano	1 day															
Employee Login UI	Albano	1 day															
Dashboard UI	Albano	2 days															
Appointment Management UI	Albano	1 week															
Employee Account Module	Serrano	1 day															
Appointment Management Module	Serrano	1 week															
Mobile UI	Serrano	1 week															
Authentication Module	Serrano	1 day															
Appointment Approval Module	Serrano	2 days															
Notification Module	Serrano	3 days															
	TOTAL DAYS	1 month 3 weeks															

Week 3						Week 4							Week 5							Week 6		
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue

November															
			Week 7							Week 8					
9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri

			Legend:		Complete			
					In progress			
					Non Working Holidays			
					Not Started			