Task 1B Design

Page 1: Introduction

Pages 2-6: User Interface

Page 7: Hierarchy of User Interface

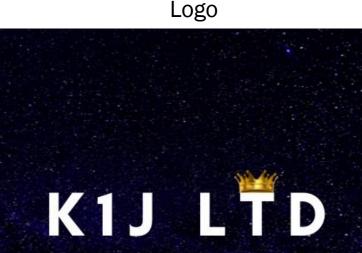
Page 8: ERD

Page 9: Data Dictionary

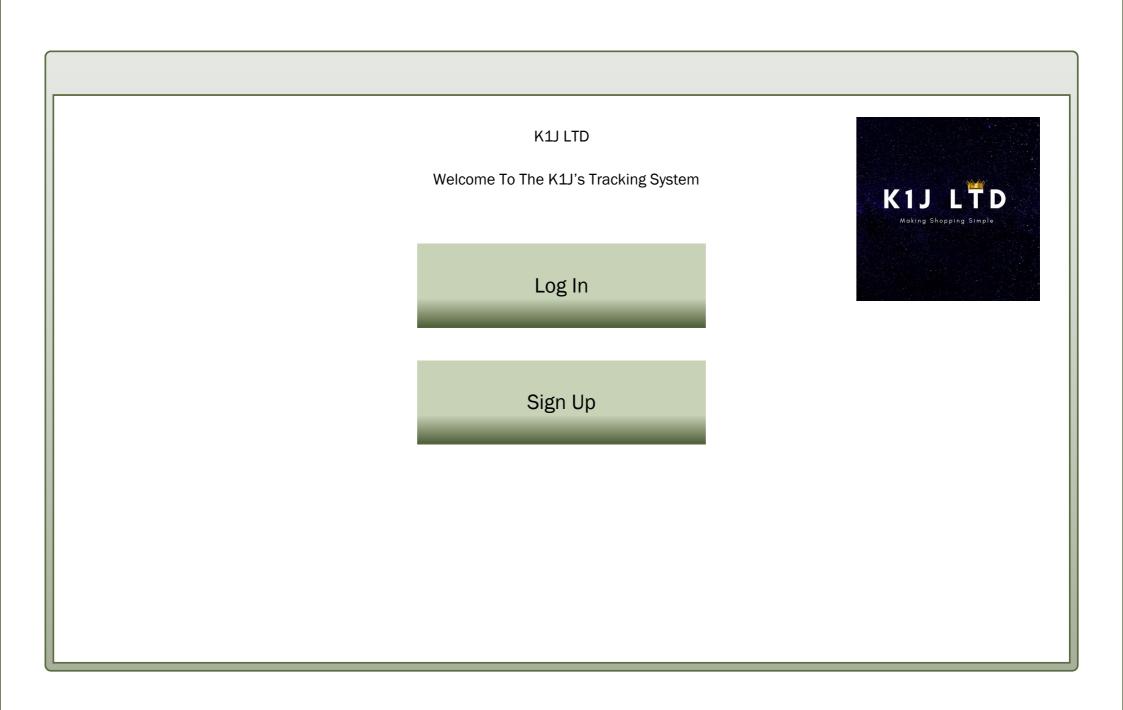
Page 10: Test Strategy

Page 11: Architecture of Programming

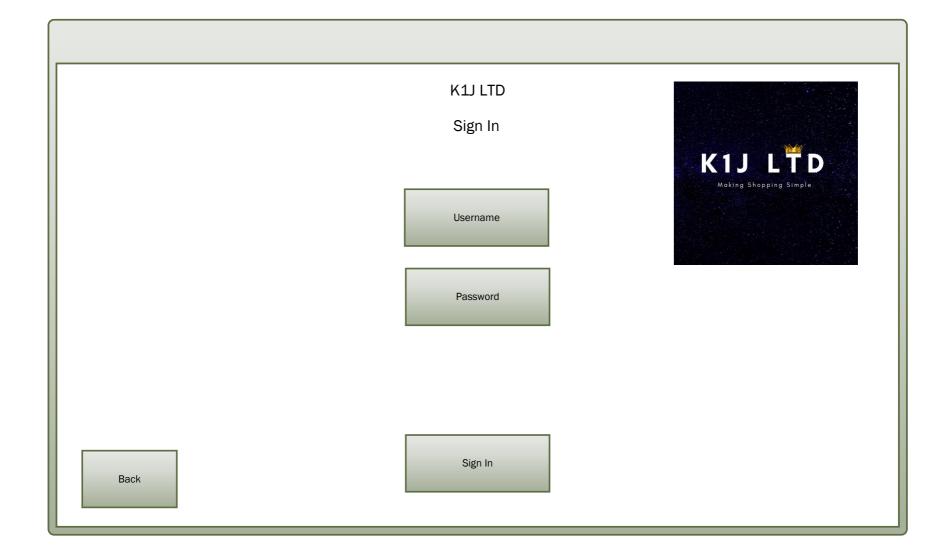
Pages 12-13: Button Flowcharts

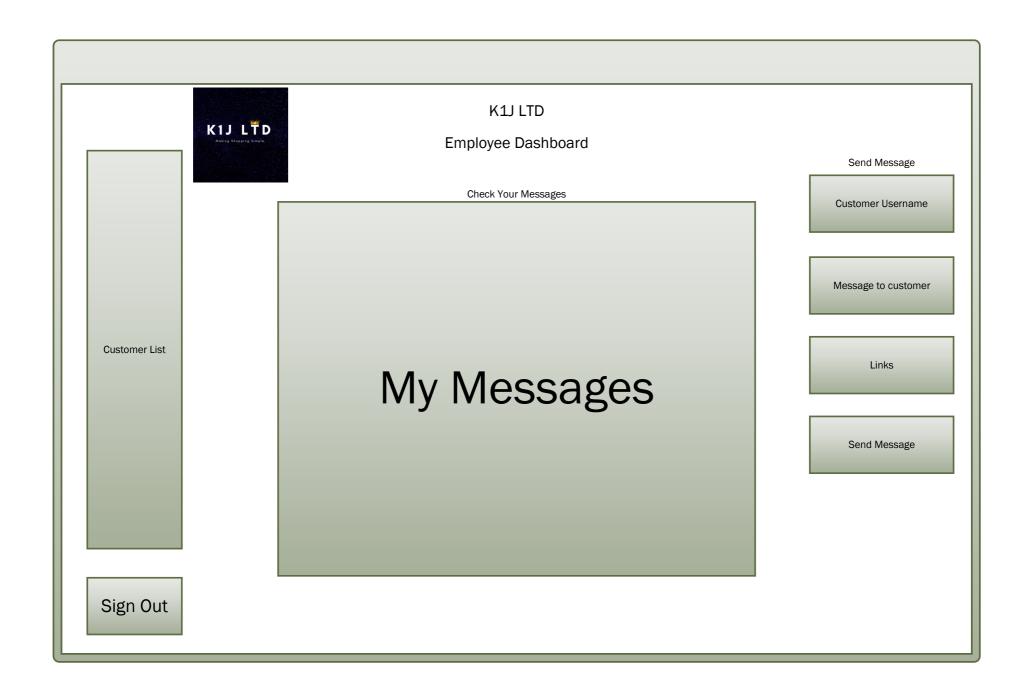


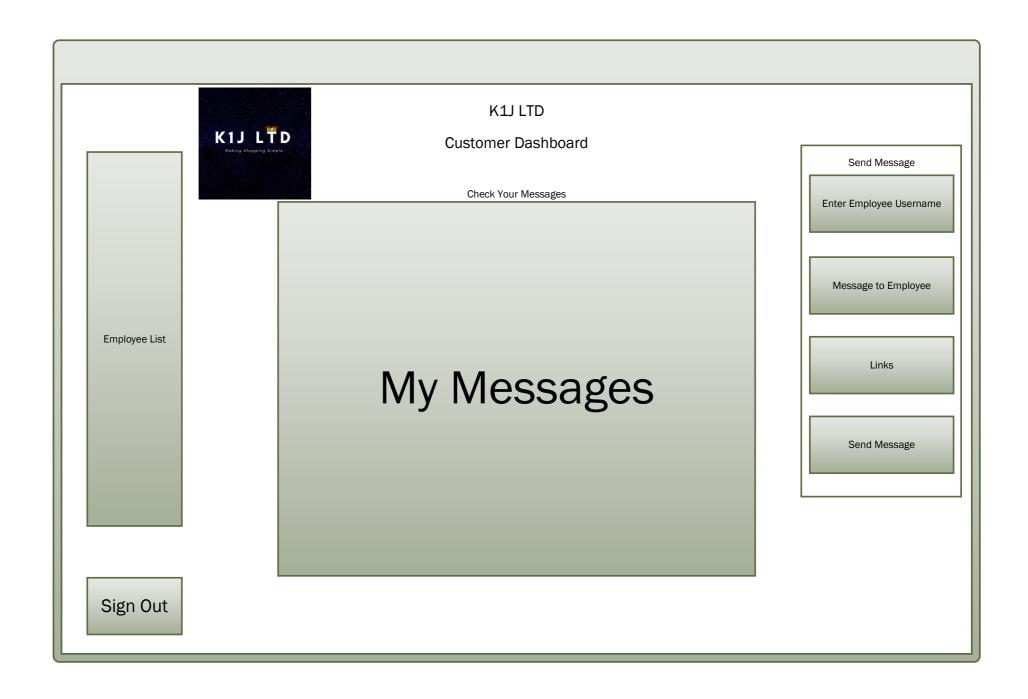
Making Shopping Simple

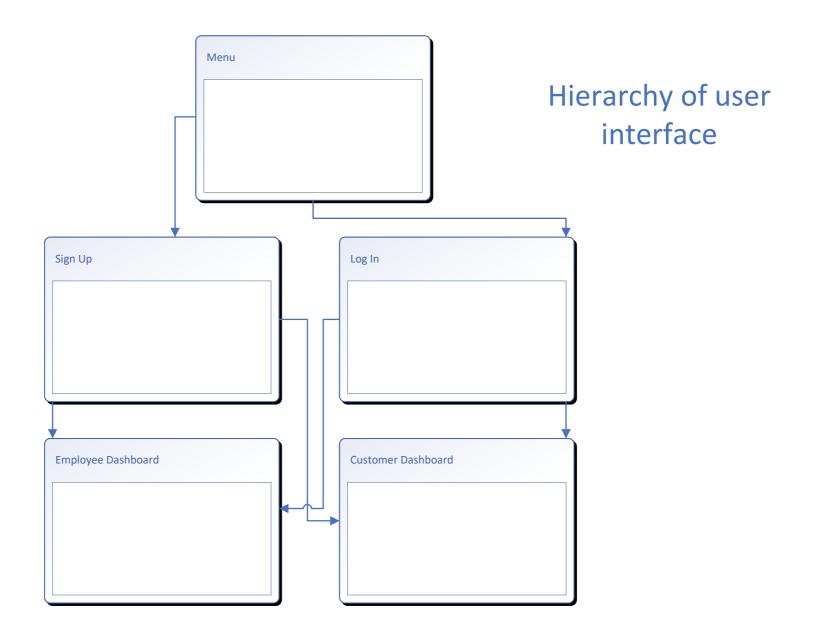


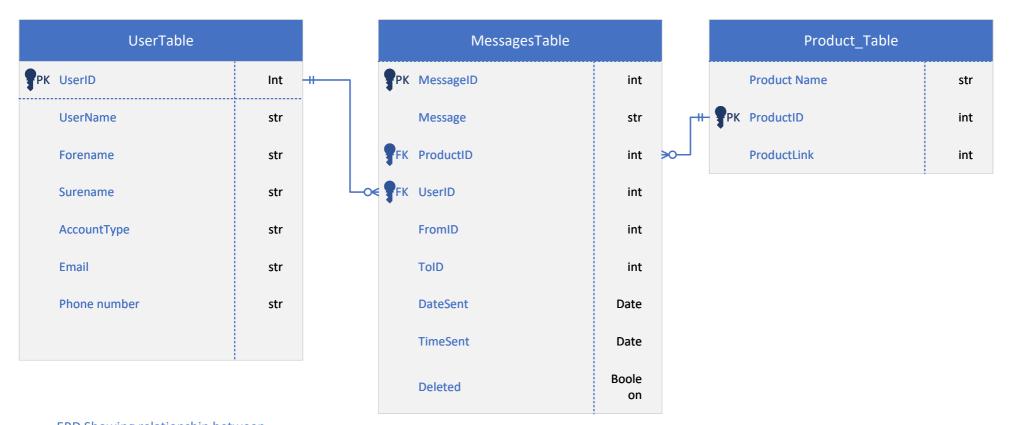












ERD Showing relationship between the users, messages and products

<u>User Table Data</u>

Field Name	Description	Data Type	Validation	Sample Data
User ID	PK For User Table	Integer	Allocated by DBMS	1
Username	The name that the user is given	string	Length check, must be 6 characters long	Tommy221
Forename	Users Forename	String	Presence and type check	Tom
Surname	User's surname	String	Presence and type check	Tom
User Email	Users Email	String	Presence and format check ("Must contain a '@'")	Tom@me.com
Phone number	Users phone number	String	Presence and format check (must be all digits and contain at least 11 digits)	0735736328
Account Type	Deter mains if the account is a customer or employee	String	Allocated by DBMS	Employee

Messages Table

MessageID	PK The Messages ID	int		
Message	The message that the user is sending	String	No validation	'Hello'
ProductID	FK ID of a product that an employee is recommending	Int	Allocated by DBMS Exists in the product table	1
UserID	FK The users ID	int	No validation Exists in the Userr table	timmy
FromID	Who the message was from	Int	No validation	41424
TolD	Who is receiving the message	Int	No validation	414124
DateSent	When the message was sent	Date/time	Type check Must be in a date format (DD/MM/YYYY)	22/10/2021
TimeSent	When the message was sent	Date/time	Type check Must be in a time format (16:00)	
Deleted	Has the message been deleted	Boolean	No validation	

Data Dictionary For Database

<u>Product table</u>				
ProductName	Name of product	String	Presence and type check	CPU
ProductID	PK Used to identify specific items	Int	Presence and type check	536
Product link	Link to the website of a product	String	none	https://www.apple.com/uk/iphone/

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TASK 1 TEST STRATEGY for K1J Project

User can access employee dashboard

Н

Priority H/M/L	Component to be tested	Type of test to be carried out	Pre-requisites and Dependencies
Н	User can create an account	Black box testing	User can navigate to the sign-up window
Н	User can sign in	Black box testing	User has an account created and saved to the data base.
L	Light and dark mode work	Black box testing	User has selected an appearance button
Н	User database details are stored	White box testing	User creates and account on the sign up form
Н	User can access customer dashboard	Black box testing	User has made a customer account

Black box testing

name:

User has made an employee

account

L	Sign up form validates that email contains an '@'	Black box testing	User has entered the email box
L	Sign up form validates that all fields are entered.	Black box testing	Users have filled in all the required boxes
Н	Login form validates that all fields are entered	Black box testing	User has entered all details into the required boxes
М	Login form reads data base correct username and password	White box testing	User has created an account
М	Login form reads data base for incorrect username	White box testing	User has entered false details
М	Back button takes user to the previous page	Black box testing	The user has progressed further than the main menu
М	When pressing the send message button, a message gets saved to a database	Black box testing	User has logged in and has entered details of where they want the message sent.

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What is a Front End?

The front end of an application is what the user/client will see. This would be things such as user interface which is controlled by Guizero in a python environment. Front end development focuses on the user experience. Things that can enhance the user experience is the navigation of the program and the widgets that they contain. These widgets can be things such as images buttons labels and grids.

What is Back End?

The back end of an application is what the user will not see, everything back end is happening in the background of the code. An example of this is with Sqlite3 in a python environment when a user creates an account. The program will use both SQL DDL and SQL DML. This part of the program is done without the user's interaction. Some more examples of back-end development are the importing of plugins.

