Customer Relationship Management System Website

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Overview Of The System

Aimed to be used by multiple businesses (account creation and login), aimed towards freelancers or small businesses

Purpose: CRM Systems help businesses develop prospects into customers by providing an efficient strategy in managing and storing information on leads. The **purpose of a CRM** system is to attract and retain customers. Implementing a **CRM** System gives businesses the tools to manage, measure, and improve processes.

Features Of The System

- adding , editing and deleting contacts along with information held on the contacts.

- The ability to search or filter through contacts (whether they are leads, clients, follow ups or by their location).

- The creation of notes, tasks & scheduling appointments that are allocated to each user

- The ability to view all activity that has been logged to each client

- There will be a dashboard with visuals to present the data of lost clients and gained clients within a time scale (time scale can be changed), and a display of the current conversion rates. It will also show any uncompleted tasks (which can be checked off as completed from the dashboard), as well as showing any scheduled appointments

The Technologies

Node Js - used to program the backend

MySQL - used as the database

C++ - for high performance modules

Javascript - frontend and backend programming

HTML - markup of the web project

CSS - to style the web project

Database Tables

Users Table - id, username, email, password, password salt, password hash

Contacts Table - id, name, telephone, email, address, type of contact, details

Appointments Table - id, title, description, date, time, completed, contact id**,**

Tasks Table - id, date, title, content, completed, contact id

Notes Table - id, date of creation, title, content, contact id

Conversions Table - id, date of conversion, contact id

Things That Will Require Sorting

All Index tables will need to sorted alphabetically so that a binary search can be performed on them for quicker access to data.

Contacts will need to be able to be sorted by date of creation, conversion, loss of client, and alphabetically by name as well as their location.

tasks , notes and schedules will all need to be capable of being sorted by date so that they can be logged in order.

Things That Will Require Searching

Contacts will need to be searched alphabetically by their name and location when the user wants to locate them within the program

Appointments and tasks still pending will need to be searched by date so that they can be displayed on the dashboard

The different types of contacts (lead, client, follow ups, and past clients) will all need to be searchable for filtering through clients

tasks , notes and schedules will all need to be capable of being searched through by date so that they can be put in the log for that contact in order.

Add, Edit & Removal of data

Contacts can be added, removed and all their details editable.

Tasks, can be added to a contact, removed and be editable.

Notes, can be added to a contact, removed and be editable.

Schedules can be added to a contact, removed and be editable.

Accounts can be created for the business, the accounts can be deleted and the username & password will be capable of being changed

Calculations

Conversion rate will need to be calculated over different periods of time (weekly, monthly, yearly)

Loss of clients rate will need to be calculated over different periods of time (weekly, monthly, yearly)

Encryption and Decryption will be done in the login for secure storage of account access details.

Comparison calculations will be done in all sorting and searching

Validation & verification

Presence check - username & password fields, ensuring all of the review details are inputted

Format check - date inputs, postcode inputs

Length check - phone number inputs

Range check - password inputs, username inputs, review comment inputs

Type check - phone number

Look up check - password to ensure it has different types of characters (num, symbol, letter), used on the customers "title"

Screen verification - upon creating an account or placing an order all details will be displayed to ensure they are correct before being submitted

Limitations

The site may not be completely mobile optimised as that would require far more extensive planning of the styling which will not be credited for and so will only be optimised for larger screen devices

There may not be different levels of access for a business as it will be geared towards freelancers and very small businesses but will be a thought and implemented if time permits

I may rely on some libraries, where there is extensive amounts of code behind certain functions which would take too long to put together myself or require knowledge of lower level languages.

Backups will not be coded into the system so will be reliant on the server providers to backup data

May not be compatible with all browsers, targeted to work on chrome primarily

Due to it only being for educational purposes, I won't be paying for the storage and will therefore be limited to a small amount data storage meaning it won't be able to hold many accounts

Feedback

Suggestion	Accept / Reject	Reason
Consider GDPR within the projects data handling	Accept	To comply with the laws as it would be necessary in a real world web app
Compression of data stored in the database	Rejected	It would not be suitable to compress data stored in the database as it would need to be uncompressed in the database to search for that piece of data
The account details for users should be changeable	Accept	In real world applications, account details such as username, password, email address etc.. are often changeable
There should be a downloadable version of the application to use offline	Reject	There would be no need to do that as anyone with an internet connection will be able to use the web app.
To help people get used to the application, there could be some form of guidance for them to follow	Accept	I could include a page to describe how the system works, describing each feature and how to use it.