

# INFO2180 - Project 2 (40 marks)

## DUE DATE

**Monday, December 09, 2024**

## Overview

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For this project you are tasked with creating an initial Minimum Viable Product (MVP) for a new Customer Relationship Management (CRM) System called **Dolphin CRM**. This CRM will allow users to add new contacts, view their details and add notes with information about interactions with the contact.

This project is a group project and will require you to be in groups of 3-5 persons. You must declare your groups by the latest **Tuesday, November 26, 2024**

## Database

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You should create a database called `dolphin_crm` which contains the following database tables with the following fields:

### Users Table

Column Name	Data Type
<code>id</code> ( <i>auto incrementing</i> )	INTEGER
<code>firstname</code>	VARCHAR
<code>lastname</code>	VARCHAR
<code>password</code>	VARCHAR
<code>email</code>	VARCHAR

Column Name	Data Type
role	VARCHAR
created_at	DATETIME

## Contacts Table

Column Name	Data Type
<i>id (auto incrementing)</i>	INTEGER
title	VARCHAR
firstname	VARCHAR
lastname	VARCHAR
email	VARCHAR
telephone	VARCHAR
company	VARCHAR
<i>type (whether Sales Lead or Support)</i>	VARCHAR
assigned_to <i>(store the appropriate user id)</i>	INTEGER
created_by <i>(store the appropriate user id)</i>	INTEGER
created_at	DATETIME
updated_at	DATETIME

## Notes Table

Column Name	Data Type
<i>id (auto incrementing)</i>	INTEGER
contact_id	INTEGER
comment	TEXT
created_by <i>(store the appropriate user id)</i>	INTEGER
created_at	DATETIME

## NOTE

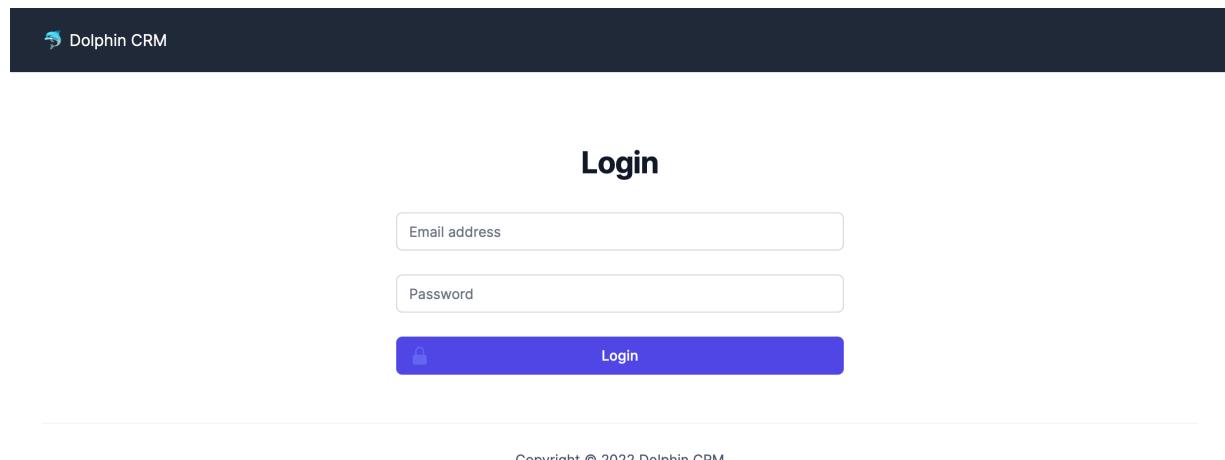
Note: You should create a file called `schema.sql` with the relevant `CREATE TABLE` statements for the tables above and include in your submitted code. Also ensure you have an `INSERT` statement that adds a user with the email address `admin@project2.com` and the password `password123` (Of course, you need to ensure that the password is appropriately hashed before using in your `INSERT` statement).

# Features

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## User Login

A user goes to the login page and logs in with their *Email address* and *password* (See *Figure 1*). The system keeps track of the user using PHP sessions. Once logged in they are presented with the Dashboard/Home Screen (See *Figure 4*) which initially shows a list of all the contacts that have been added to the system.



The screenshot shows the login interface for the Dolphin CRM application. At the top, there's a dark header bar with the 'Dolphin CRM' logo. Below this is a light-colored login form. The form has a title 'Login' centered at the top. It contains two input fields: one for 'Email address' and one for 'Password', both with placeholder text. At the bottom of the form is a blue 'Login' button with a lock icon. At the very bottom of the page, there's a small copyright notice: 'Copyright © 2022 Dolphin CRM'.

*Figure 1: Dolphin CRM Login Screen*

## Adding a user

To simplify things for this assignment, users can only be added by an administrator, there is no feature for new users to self-sign up. An administrator logs in and completes the new user form (See *Figure 2*).

You should use regular expressions to ensure that passwords have at least one number and one letter, and one capital letter and are at least 8 characters long. The password **MUST** be hashed before being stored in the database. I suggest you use the PHP `password_hash()` function to hash your passwords.

Users can have a role of either *Admin* or *Member*.

Ensure that all input fields are validated and that user inputs are escaped and sanitized before being inserted into the database. Also provide the user with feedback if the new contact was added successfully or if there are any errors with their submission.

The wireframe shows a user interface for creating a new user. At the top left is the 'Dolphin CRM' logo. A navigation bar on the left includes links for 'Home', 'New Contact', 'Users' (which is the active page), and 'Logout'. The main content area is titled 'New User'. It contains four input fields: 'First Name' (Jane), 'Last Name' (Doe), 'Email' (something@example.com), and 'Password' (empty). Below these is a dropdown menu for 'Role' set to 'Member'. At the bottom right is a blue 'Save' button.

Figure 2: Wireframe of New User creation screen

## View a list of users

The system should also have a page that lists all the users of the system. It should show their full name, email, role and date created in a table (See *Figure 3*). Only an *Admin* should be able to view the list of all users.

The screenshot shows the 'Users' page of the Dolphin CRM application. At the top left is the logo and the text 'Dolphin CRM'. On the left side, there is a sidebar with links: 'Home', 'New Contact', 'Users', and 'Logout'. At the top right is a blue button labeled '+ Add User'. The main area has a title 'Users' and a table with the following data:

Name	Email	Role	Created
Ms. Jan Levinson	jan.levinson@paper.co	Member	2022-11-13 11:00
Mr. David Wallace	david.wallace@paper.co	Admin	2022-11-10 19:00
Mr. Andy Bernard	andy.bernard@paper.co	Member	2022-11-10 11:00
Mr. Darryl Philbin	darryl.philbin@paper.co	Member	2022-11-09 23:00
Ms. Erin Hannon	erin.hannon@paper.co	Member	2022-11-08 13:30

Figure 3: List of Users

## User Logout

There will be a logout link/button which a user may click in order to logout of the system. When this is done, the PHP Session should be destroyed and the user redirected to the login screen.

## Dashboard/Home Screen

The Dashboard/home screen allows a logged in user to see a list of all the contacts that have been added to the system. The list of contacts should display the contact's title (e.g. Mr, Mrs, Ms, Dr or Prof) and full name, Email, Company, Type of Contact (ie. Sales Lead or Support). There should also be a link that when clicked will allow the user to view the full details of the contact. (See *Figure 4*)

The page should also have a list of filters to display "*All Contacts*" no matter their type, "*Sales Leads*" only, "*Support*" only or contacts "*Assigned to me*" which should display only the contacts assigned to the currently logged in user.

There should be a call to action button to *Add New Contact* in the top right of the Dashboard/Home screen.

The screenshot shows the Dolphin CRM Dashboard. On the left, there's a sidebar with links for Home, New Contact, Users, and Logout. The main area is titled "Dashboard" and contains a table of contacts. The table has columns for Name, Email, Company, and Type. Each contact row includes a "View" button. The contacts listed are Mr. Michael Scott, Mr. Dwight Shrute, Ms. Pam Beesley, Ms. Angela Martin, Ms. Kelly Kapoor, and Mr. Jim Halpert.

Name	Email	Company	Type	
Mr. Michael Scott	michael.scott@paper.co	The Paper Company	SALES LEAD	<a href="#">View</a>
Mr. Dwight Shrute	dwight.schrute@paper.co	The Paper Company	SUPPORT	<a href="#">View</a>
Ms. Pam Beesley	pam.beesley@dunder.co	Dunder Mifflin	SUPPORT	<a href="#">View</a>
Ms. Angela Martin	angela.martin@vance.co	Vance Refrigeration	SALES LEAD	<a href="#">View</a>
Ms. Kelly Kapoor	kelly.kapoor@vance.co	Vance Refrigeration	SUPPORT	<a href="#">View</a>
Mr. Jim Halpert	jim.halpert@dunder.co	Dunder Mifflin	SALES LEAD	<a href="#">View</a>

Figure 4: Dolphin CRM Dashboard

## Create a New Contact

The Create a New Contact screen includes a form with the following input fields: **Title**, **First Name**, **Last Name**, **Email**, **Telephone**, **Company**, **Type** (e.g. *Sales Lead* or *Support*) and **Assigned To** (*which should list the names of all the users in the system*) input fields. (See *Figure 5*).

Whenever a new contact is created you should also store the user id of the user who created the contact and the `created_at` and `updated_at` date columns should be set to the current date and time.

Ensure that all input fields are validated and that user inputs are escaped and sanitized before being inserted into the database. Also provide the user with feedback if the new contact was added successfully or if there are any errors with their submission.

The wireframe shows the 'New Contact' form. On the left, a sidebar menu includes 'Home', 'New Contact' (which is the active tab), 'Users', and 'Logout'. The main area is titled 'New Contact' and contains fields for 'Title' (set to 'Mr'), 'First Name' (Jane), 'Last Name' (Doe), 'Email' (something@example.com), 'Telephone' (empty), 'Company' (empty), 'Type' (Sales Lead), 'Assigned To' (Andy Bernard), and a large notes/remarks section at the bottom right with a 'Save' button.

Figure 5: Wireframe of new Contact page

## Viewing Full Contact Details

When the name of a contact or the *View* link on the Dashboard/Home screen is clicked it will open and show the full details of that contact (See *Figure 6*). These details should include the *Title* and *Full Name*, *Email*, *Company*, *Telephone*, *Date Created* and by whom, *Date last updated*, as well as who the contact is assigned to.

In addition to viewing the full contact details, a user should be able to assign the Contact to themselves by selecting the "Assign to me" button. A user can also switch the type of the contact to a *Sales Lead* if it is currently of the type *Support* or switch to *Support* if it currently of the type *Sales Lead*. When either of these options are changed you should also update the `updated_at` timestamp on the contact.

A user should also see a list of notes for that particular contact (See *Figure 7*). Each note should have the name of the user who made the note, the actual comment of the note and the date the note was added. The user should also be able to add a new note for the contact.

The wireframe shows the contact details for 'Mr. Michael Scott'. At the top left is the 'Dolphin CRM' logo. On the left sidebar, there are links for 'Home', 'New Contact', 'Users', and 'Logout'. The main content area displays the contact's name, 'Mr. Michael Scott', with a small profile icon. Below the name are creation and update dates ('Created on November 9, 2022 by David Wallace' and 'Updated on November 13, 2022'). To the right are two buttons: 'Assign to me' (green) and 'Switch to Sales Lead' (yellow). Below this, contact information is listed: Email (michael.scott@paper.co), Telephone (876-999-9999), Company (The Paper Company), and Assigned To (Jen Levinson). A 'Notes' section follows, containing three entries from 'Jane Doe', 'John Doe', and 'John Doe', each with a timestamp. At the bottom is a form field for adding a note about Michael, with a placeholder 'Enter details here'.

Figure 6: Wireframe of Contact details page

## Adding a note to the Contact

A user should be able to add a note to a contact in order to share internal information, log phone calls, or document conversations with your contacts.

When viewing a contact, there should be a section below the contact details that shows existing notes for the contact as well as a field to enter a note about the contact and a button to save the note (See *Figure 7*). When a new note is added the `updated_at` column on the contact should also be updated.

Ensure that all input fields are validated and that user inputs are escaped and sanitized.

The wireframe shows a notes section with three entries:

- Jane Doe**:  
Lorem ipsum dolor sit amet consectetur adipisicing elit. Numquam sapiente officiis suscipit assumenda praesentium, porro ad magni at distinctio vel beatae sit fugiat quia placeat necessitatibus, magnam provident veritatis perspiciatis?  
November 10, 2022 at 4pm
- John Doe**:  
Lorem ipsum dolor sit amet consectetur adipisicing elit. Numquam sapiente officiis suscipit assumenda praesentium, porro ad magni at distinctio vel beatae sit fugiat quia placeat necessitatibus, magnam provident veritatis perspiciatis?  
November 11, 2022 at 10am
- John Doe**:  
Lorem ipsum dolor sit amet consectetur adipisicing elit. Numquam sapiente officiis suscipit assumenda praesentium, porro ad magni at distinctio vel beatae sit fugiat quia placeat necessitatibus, magnam provident veritatis perspiciatis?  
November 13, 2022 at 6pm

Add a note about Michael

Enter details here

Add Note

Figure 7: Wireframe of Notes section on Contact Details page

## No Page Refreshes by using AJAX

You will need to implement an AJAX based approach to loading new content or updating content in the browser and when doing form submissions. In other words, all pages should load the appropriate page information/data without the browser refreshing. Utilize your knowledge on the `XMLHttpRequest` object, `jQuery .ajax()` function or the Fetch API to make your AJAX requests.

## Future Improvements

In the next development cycle we hope to allow Dolphin CRM to include other features such as the ability to edit and delete users and contacts, add Tasks, upload files, send emails directly to Contacts and add Cases which can help us to organize our communication – notes, emails and files together. However, for now that is not necessary for our initial MVP.

## Submission

You will submit using the "Final Project Submission" link on the course platform. Since it is a group project, only one group member is required to submit the relevant project

links.

You are required to commit your code to Github and submit the link to your group project Github repository (e.g. <https://github.com/yourusername/info2180-finalproject> ).