# Customer Relation Management Project


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Web Technology Final Project Documentation

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# Introduction

## What is the CRM application?

- The CRM application is a web application that helps businesses manage their customer relationships. The application provides a number of features to help businesses track and manage their leads, opportunities, and customers.

- The CRM application is a web application that allows users to manage their customer relationships.

# Overview

## What are the features of the CRM application?

- * Contact management: The application allows businesses to store and manage contact information for their customers.
- * Opportunity management: The application allows businesses to track opportunities and close them as sales.
- * Customer support: The application allows businesses to provide customer support and track customer interactions.
- * Reporting: The application provides a number of reports that can be used to track the performance of the CRM application and the customer relationships.

# Project Plan

## Project Scope

- The scope of the project is to develop a CRM application that will help businesses manage their customer relationships. The application will provide a number of features to help businesses track and manage their leads, opportunities, and customers.

## Resources

- The following resources will be needed to complete the project:
- Software: The following software will be needed to develop the CRM application:
  - Java
  - Spring Boot
  - MySQL
  - Thymeleaf
  - Bootstrap

# User Documentation

## Login

- To login to the CRM application, you will need to provide your username and password. Your username is your email address and your password is the password you created when you first set up the application.
- While

  when you’re admin you can use this logins

  username: ndobahakim5@gmail.com

  password: Ndoba00509

## Navigation

- The CRM application is divided into a number of different sections, including:
- Dashboard: The dashboard is a central hub where you can see an overview of your customer relationships. This Dashboard also is where Admin can see all information of business.
- Home Page: this is the page where user see when enter on our website and face different services.
- Where it has;
- Home, Products, Pricing, and Login.
- Opportunities: The opportunities section is where you can track opportunities and close them as sales.
- Customer support: The customer support section is where you can provide customer support and track customer interactions.
- Reporting: The reporting section is where you can view reports on the performance of the CRM application and the customer relationships.

# Other functionality of my web application

**My application have an Authentication and Authorization**: where it use Spring Security to secure my application

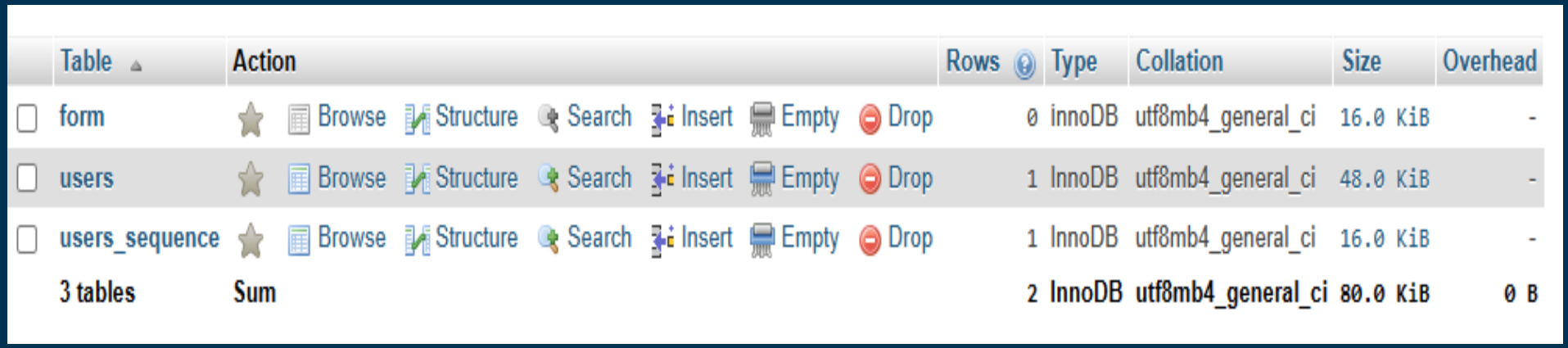
**CRUD (Create, Read, Update, Delete) operations**

- My application have a crud operation in system where the admin can create the customer who registered in our application
- And also the admin can Read all customer have registered
- Also he/she can Update the customer information.
- And can Delete the customer information.

**There is other functionality have like,**

- **File Upload and Download**: where it downloads the pdf file of an data that are in our database.
- **Search and Filtering :** it has also the search and filtering where user can find all information easily
- **Validations:** it has validations where it has some validation for user authentication.
- And also for my app you can get the dashboard as an admin  where it contains all the information of customers.

# Database Schema



| | Table | Action | Rows | Type | Collation | Size | Overhead |
|---|---|---|---|---|---|---|---|
| ☐ | form | Browse Structure Search Insert Empty Drop | 0 | InnoDB | utf8mb4_general_ci | 16.0 KiB | - |
| ☐ | users | Browse Structure Search Insert Empty Drop | 1 | InnoDB | utf8mb4_general_ci | 48.0 KiB | - |
| ☐ | users_sequence | Browse Structure Search Insert Empty Drop | 1 | InnoDB | utf8mb4_general_ci | 16.0 KiB | - |
| | 3 tables | Sum | 2 | InnoDB | utf8mb4_general_ci | 80.0 KiB | 0 B |

Table: `form` Column | Type | Description

`id` | `int` | The primary key of the table.

`firstname` | `varchar(255)` | The name of the customer.

`email` | `varchar(255)` | The email address of the customer. `phone` | `varchar(255)` | The phone number of the customer. `address` | `varchar(255)` | The address of the customer.

Table: `users` Column | Type |

`id` | `int` | The primary key of the table.

‘email | varchar(255)`

`first_name` | `varchar(255)`

`last_name` | `varchar(255)`

‘mobile’| ‘int’

‘password’ | varchar(255)`

# Technical Documentation

## Architecture

The CRM application is a web application that is implemented using the Spring Boot framework. The Spring Boot framework provides a number of features that make it easy to develop and deploy web applications, including:

•Autoconfiguration: The Spring Boot framework automatically configures many of the dependencies that are needed for a web application. This makes it easy to get started with development.

•Starters: The Spring Boot framework provides a number of starters that make it easy to add specific features to a web application. For example, there are starters for adding a database, adding security, and adding a web server.

•Dependency management: The Spring Boot framework manages the dependencies for a web application. This makes it easy to keep the dependencies up to date and to avoid conflicts between dependencies.

## The CRM application is implemented using the following technologies:

- **Java**: The CRM application is written in Java. Java is a popular programming language that is used to develop a wide variety of applications.
- **Spring Boot**: The Spring Boot framework is used to develop and deploy the CRM application.
- **MySQL**: The MySQL database is used to store the data for the CRM application by using XAMPP.
- **Spring Data JPA**: The Spring Data JPA framework is used to access the data in the MySQL database.
- **Thymeleaf**: The Thymeleaf template engine is used to render the HTML pages for the CRM application.
- **Bootstrap**: The Bootstrap CSS framework is used to style the HTML pages for the CRM application.

# Technical Documentation

**Implementation**

The CRM application is implemented using the following steps:

1. Create a new Spring Boot project using the Spring Boot Initializer.
2. Add the following dependencies to the project:
    . Spring Boot Starter Web
    . Spring Boot Starter Data JPA
    . MySQL Connector/J
3. Create the database schema.
4. Create the Spring Security
5. Create the domain classes.
6. Create the repository interfaces.
7. Create the service classes.
8. Create the controller classes.
9. Create the HTML pages.
10. Style the HTML pages using Bootstrap.
11. Deploy the application to a web server.

# Technical Documentation

**Libraries and frameworks**

The following libraries and frameworks are used in the CRM application:

- Spring Boot: The Spring Boot framework is used to develop and deploy the CRM application.
- Spring Data JPA: The Spring Data JPA framework is used to access the data in the MySQL database.
- Thymeleaf: The Thymeleaf template engine is used to render the HTML pages for the CRM application.
- Bootstrap: The Bootstrap CSS framework is used to style the HTML pages for the CRM application.

# Thank You