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| CUSTOMER RELATION MANAGEMENT |
| A CAPSTONE PROJECT  Submitted By |
|  |
| A Sruthi rosiline  192221015 |
| In Partial Fulfillment for the completion of the course |
| CSA0912  Programming in Java  Sep 2024 |
|  |
| SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES  CHENNAI - 602105  TAMIL NADU, INDIA |



# **BONAFIDE CERTIFICATE**

This is to certify that the project report entitled **<Title>** submitted by <name , Reg.No> to Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences, Chennai, is a record of bonafide work carried out by him/her under my guidance. The project fulfills the requirements as per the regulations of this institution and in my appraisal meets the required standards for submission.

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# **1. ABSTRACT**

The **Customer Relationship Management (CRM) System** enhances customer interaction, relationship building, and sales tracking by managing customer data and automating workflows. This project uses Java to develop backend logic to store and process customer information, track communication history, and provide analytics on customer engagement. It offers a web-based interface for user interaction, enabling businesses to manage customer relationships efficiently. The CRM system integrates real-time monitoring and report generation features to improve sales performance and customer satisfaction.

1. **INTRODUCTION**

Customer Relationship Management (CRM) is a strategy used by businesses to manage interactions with current and potential customers. This project implements a CRM system using Java for backend processing to manage customer data, sales activities, and communications. The system focuses on storing customer details, tracking interactions, managing leads, and generating sales reports. Additionally, it provides an easy-to-use web interface for users to manage customer data. One key feature of the CRM system is its ability to automate workflows and send reminders, ensuring timely follow-up with clients. Integration with third-party services like email and calendar systems also boosts productivity.

The system also promotes business insights by providing real-time reporting and data analysis, helping businesses identify trends and optimize strategies. Furthermore, it is scalable and can integrate with popular CRM tools such as Salesforce or Zoho CRM for additional functionality.

1. **ARCHITECTURE DIAGRAM**

The architecture of the CRM system consists of the following components:

* **User Interface (UI):** Web-based dashboard for user interaction.
* **Backend (Java):** Manages the logic for customer data handling and automation.
* **Database:** Stores customer information, sales data, and communication history.
* **Cloud Services:** Enables real-time communication, data storage, and backup.

**+---------------------+ +----------------------------+**

**| User Interface (UI) | <----> | Backend (Java) |**

**| (Web Dashboard) | | (Business Logic) |**

**+---------------------+ | Database Connectivity|**

**+----------------------------- +**

**+--------------------------- +**

**| Database (Customer) |**

**+----------------------------+**

# **FLOWCHART**

**+---------------------+**

**| Start |**

**+---------------------+**

**|**

**+---------------------+**

**| User Logs In |**

**+---------------------+**

**|**

**+---------------------+**

**Dashboard View |**

**+---------------------+**

**|**

**+---------------------+**

**| View Customer Info |**

**+---------------------+**

**|**

**+---------------------+**

**| Update Customer Data|**

**+---------------------+**

**|**

**+---------------------+**

**| Log Out |**

**+---------------------+**

**|**

**+---------------------+**

**| End |**

**+---------------------+**

# **UML DIAGRAM**

**+-----------------------------------------------------+**

**| Use Case: Customer Relationship System |**

**+-----------------------------------------------------+**

**| Actors: |**

**| - User (Logs In, Views Data) |**

**| - Customer (Managed in the system) |**

**+-----------------------------------------------------+**

**| System Handles: |**

**| - Data Storage, User Management |**

**| - Communication Tracking |**

**| - Sales Report Generation |**

**+-----------------------------------------------------+**

# **6. CLASS DIAGRAM**

+---------------+ +-------------------+

| User | | Customer |

+---------------+ +-------------------+

| - id | | - id |

| - name | | - name |

| - password | | - contactInfo |

+---------------+ +-------------------+

| v

+-------------------+ +-------------------+

| Interaction | | SalesRecord |

+-------------------+ +-------------------+

| - date | | - amount |

| - details | | - date |

+-------------------+ +-------------------+

**7. CODE IMPLEMENTATION**

public class Customer {

private String id;

private String name;

private String contactInfo;

public Customer(String id, String name, String contactInfo) {

this.id = id;

this.name = name;

this.contactInfo = contactInfo;

}

public String getDetails() {

return "Customer: " + name + " | Contact: " + contactInfo;

}

}

public class Interaction {

private String date;

private String details;

public Interaction(String date, String details) {

this.date = date;

this.details = details;

}

public String getInteractionInfo() {

return "Interaction on: " + date + " | Details: " + details;

}

}

public class CustomerController {

public void addCustomer(Customer customer) {

}

public Customer getCustomerDetails(String customerId) {

return new Customer(customerId, "John Doe", "johndoe@example.com");

}

public void recordInteraction(Interaction interaction) {

}

}

# **8. OUTPUT SCREENSHOT**

### Screenshot (234)**9. CONCLUSION**

The CRM system built using Java helps manage customer data, track sales performance, and automate workflows. It improves customer engagement and enhances business insights through its reporting features. The backend ensures secure data storage and retrieval, while the integration with third-party services facilitates seamless operations.

# **10. REFERENCES**

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