### A CRM APPLICATION FOR LAPTOP RENTALS

**1.Project Overview**

CRM Application on Laptop rentals is about delivering the items to the customers by rental purpose. It leverages the power of customer relationship management (CRM) to enhance customer experiences, optimise store operations, and improve overall efficiency. Additionally to these, we also need to do an effective CRM i.e via communicating through email with the potential customers identified.

**2.Objectives**

### Business Goals:

* Automate rental booking processes and inventory tracking.
* Improve customer communication through email notifications.
* Maintain accurate records of rented and available laptops.
* Provide insightful reports and dashboards to monitor performance.
* Implement an effective **billing process** for rentals.

### Specific Outcomes:

* Track individual laptop rentals, customers, and billing information.
* Automate communication through **Apex triggers**.
* Real-time visibility of laptop inventory with roll-up summary fields.
* Custom reports and dashboards for data-driven insights.

**3.Salesforce Key Features and Concepts Utilized**

* **Objects Created :**
  + **Total Laptops:** Tracks the total inventory.
  + **Consumer:** Stores customer details such as name and email.
  + **Laptop Bookings:** Manages the rental orders.
  + **Billing Process:** Tracks payments for rented laptops.
* **Custom Tabs:**
  + Each object (e.g., Consumer, Laptop Bookings) has a corresponding **tab** for easy access.
* **Lightning App:**
  + A **custom Lightning App** integrates all objects for a seamless user experience.
* **Validation Rule:**
  + **Phone Number Validation** ensures that only valid phone numbers are accepted in the Consumer object.
* **Profiles & Roles:**
  + **Owner Profile:** Manages overall operations.
  + **Agent Profile:** Responsible for handling bookings and customers.
  + **Role Hierarchy:** Ensures proper access to customer and booking data.
* **Flows:**
  + Automated processes for handling specific laptop models (Dell, HP, Acer, Mac) using **Salesforce Flows**.

**4.Detailed Steps to Solution Design**

### Objects Creation and Configuration:

1. **Create Total Laptops Object:**
   * Stores the total inventory of available laptops.
2. **Create Consumer Object:**
   * Manages customer details such as name, email, and phone.
3. **Create Laptop Bookings Object:**
   * Tracks individual laptop rental orders linked to both **Consumer** and **Total Laptops**.
4. **Create Billing Process Object:**
   * Manages billing information, including rental charges.

### Fields and Relationships:

1. **Consumer Object:**
   * Fields: Name, Email, Phone (with a validation rule for phone number).
2. **Laptop Bookings Object:**
   * Fields: Amount, Core Type, Laptop Type, and a **lookup field** to Consumer.
3. **Billing Process Object:**
   * Fields: Billing Amount, Payment Status, and Due Date.
4. **Relationships:**
   * Lookup and master-detail relationships between **Laptop Bookings, Consumer, and Total Laptops** objects.

### Validation Rules:

* **Phone Number Validation for Consumer:** Ensures valid phone numbers (only digits allowed).

### Apex Implementation:

* **Trigger for Email Notification:** Sends email to customers upon booking

**Trigger Code:**

trigger LaptopBooking on Laptop\_Bookings\_\_c (after insert, after update) {

if (Trigger.isAfter && (Trigger.isInsert || Trigger.isUpdate)) {

LaptopBookingHandler.sendEmailNotification(Trigger.new);

}

}

**Handler Class Code:**

public class LaptopBookingHandler {

public static void sendEmailNotification(List<Laptop\_Bookings\_\_c> lapList) {

for (Laptop\_Bookings\_\_c lap : lapList) {

Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();

email.setToAddresses(new List<String>{lap.Email\_\_c});

email.setSubject('Welcome to Laptop Rentals');

String body = 'Dear ' + lap.Name + ',\n';

body += 'Welcome to Laptop Rentals! Your rental details are:\n';

body += 'Laptop Amount = ' + lap.Amount\_\_c + '\n';

body += 'Core Type = ' + lap.Core\_\_c + '\n';

body += 'Laptop Type = ' + lap.Laptop\_Type\_\_c;

email.setPlainTextBody(body);

Messaging.sendEmail(new List<Messaging.SingleEmailMessage>{email});

}

}

}

### Reports and Dashboards Configuration

* **Create a Report:**
  + **Report Type:** "Consumers with Laptop Bookings and Total Laptops."
  + **Fields:** Consumer Name, Booking Amount, Laptop Type, and Core Type.
* **Sharing Report:**
  + Share the report with the **Owner Profile** to provide visibility into booking trends.
* **Create Dashboard:**
  + **Dashboard Folder:** Store the dashboards for easy access.
  + **Dashboard Components:** Add widgets for total bookings, available laptops, and billing summary.

**5.Testing and Validation**

### Testing Approach:

1. **Unit Testing:** Validate that email triggers function correctly.
2. **Functional Testing:** Verify that relationships between objects are working.
3. **User Acceptance Testing:** Ensure that the system meets user expectations.

### Sample Test Cases:

* **Test Case 1:** Verify that the email notification is sent after booking.
* **Test Case 2:** Check that the roll-up summary field displays the correct count of available laptops.
* **Test Case 3:** Ensure that users can only select available laptops during the booking process.

**6.Key Scenarios Addressed by Salesforce in the Implementation Project**

* **Automated Booking Management:**
  + Automates the booking process and tracks customer interactions.
* **Inventory Tracking:**
  + Ensures real-time visibility of rented and available laptops.
* **Automated Customer Communication:**
  + Sends email notifications for bookings using **Apex triggers**.
* **Insightful Reporting:**
  + Custom reports and dashboards provide data-driven insights into rental operations.
* **Effective Billing Management:**
  + Tracks payments and billing statuses for each rental.

**7.Conclusion**

### Summary of Achievements:

* **Streamlined Booking and Rental Management:**
  + Implemented a CRM application to manage laptop rentals efficiently.
* **Automated Communication:**
  + Enhanced customer engagement through automated email notifications.
* **Real-Time Inventory Tracking:**
  + Enabled better decision-making with accurate laptop availability tracking.
* **Comprehensive Reporting:**
  + Developed custom reports and dashboards for performance analysis.

This **CRM Application for Laptop Rentals** has optimized operations, improved customer satisfaction, and provided better visibility into rental trends and inventory management. It serves as a scalable and efficient solution for managing laptop rentals.