



**CRM Application that helps
to
Book a Visa Slot**



**SALESFORECE NAANMUDHALVAN
PROJECT REPORT**

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in partial fulfillment for the award

of the degree of

BACHELOR OF TECHNOLOGY

in

INFORMATION TECHNOLOGY

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BONAFIDE CERTIFICATE

Certified that this project report titled “**CRM Application That helps to Book a Visa Slot**” is the bonafide work of “**NANDHAKUMARAN M(611220205019), LESSA D(611220205017),SOWMIYA A (611220205035) , KEERTHIKA G (611220205307)** “who carried out the projectwork under my supervision.

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ACKNOWLEDGEMENT

At the outset, we express our heartfelt gratitude to god, who has been our strength to bring this project to light.

At this pleasing moment of having successfully completed our project, we wish to convey our sincere thanks and gratitude to our beloved president **Mr.C.BALAKRISHNAN**, who has provided all the facilities to us. We would like to convey our sincere thanks to our beloved Principal **Dr.PSS.SRINIVASAN**, for forwarding us to do our project and offering adequate duration in completing our project.

We express our sincere thanks to our Head of the Department **Dr.P.SACHIDHANANDAM**, Department of Information Technology for fostering the excellent academic climate in the Department.

We express our pronounced sense of thanks with deepest respect and gratitude to our Faculty Mentor **Mr.R.AYYAPPAN**, Department of Computer Science and Business Systems for their valuable and precious guidance and for having amicable relation.

With deep sense of gratitude, we extend our earnest and sincere thanks to our SPOC **Mr.T.KARTHIKEYAN**, Assistant Professor, Department of Computer Science and Engineering for his guidance and encouragement during this project.

We would also like express our thanks to all the faculty members of our Department, friends and students who helped us directly and indirectly in all aspects of the project work to get completed successfully.

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CHAPTER I

INTRODUCTION

Salesforce, a leading cloud-based Customer Relationship Management (CRM) platform, is a pivotal tool for organizations to manage customer data, optimize sales processes, and elevate customer interactions. Its multifaceted features include Sales Cloud, which enhances sales management through lead tracking, opportunity management, and seamless email integration. Service Cloud focuses on exceptional customer support, featuring case management, knowledge base development, and multi-channel support.

Marketing Cloud empowers businesses with marketing automation, email campaigns, social media engagement, and in-depth analytics. Salesforce's hallmark is its customizability, allowing businesses to tailor the platform to meet specific requirements, while robust integration capabilities facilitate seamless connections with other business applications.

The platform equips businesses with powerful reporting and analytics tools, enabling data-driven decisions and insightful, customized reports and dashboards. Salesforce ensures mobile accessibility, enabling users to stay connected and productive while on the move. A paramount emphasis on data security and compliance guarantees data protection and privacy. Whether you're a small start-up or a large enterprise, Salesforce offers scalability to accommodate your evolving needs.

Through Salesforce, organizations foster improved customer relationships, increased sales efficiency, and superior customer support. It empowers businesses to make data-driven decisions, streamline operations, and create impactful, targeted marketing campaigns. This introduction encapsulates Salesforce's capabilities and benefits, offering a concise overview for your project document, allowing for a better understanding of how the platform can contribute to your specific project goals.

CHAPTER 2

PROJECT SPECIFICATIONS

2.1 Project Goal

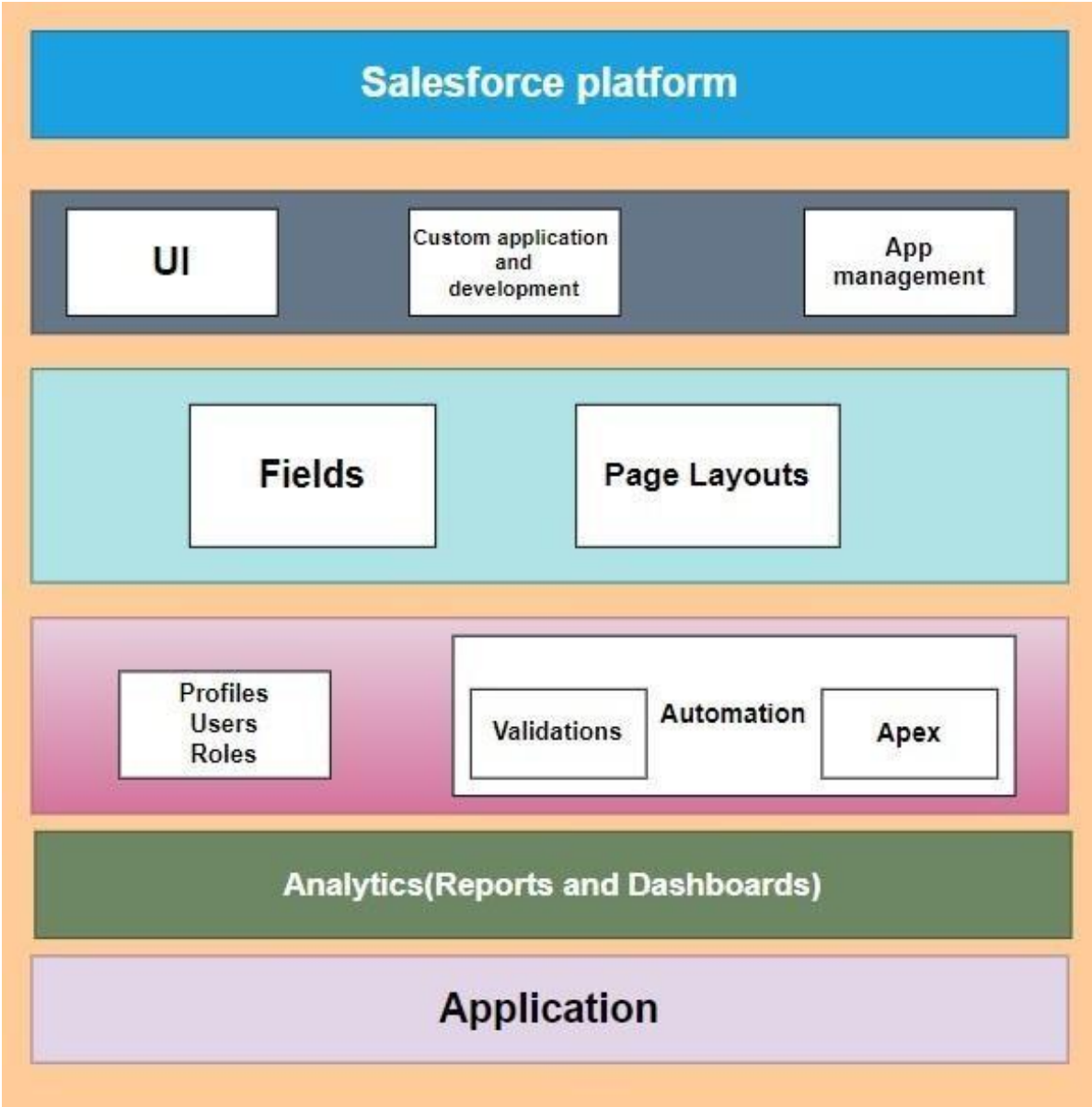
A CRM (Customer Relationship Management) application integrated into Salesforce, specifically designed to facilitate the booking of visa slots, can greatly streamline the operations of travel and visa processing companies. The primary goal of a CRM application designed to help book visa slots is to enhance the efficiency and effectiveness of the visa application process. Simplify and expedite the visa slot booking process for applicants, making it easy for them to select suitable time slots based on their preferences. Provide real-time information on slot availability across various consulates and embassies, ensuring applicants have up-to-date access to available appointments.

2.2 Project Scope

- **Creation of Developer Account (Milestone 1):** To create a developer account for the Visa Slot Booking CRM application, visit the platform's website, select "Developer Account," and follow the registration process by providing essential information.
- **Object Creation (Milestone 2):** In the CRM application, object creation involves defining data structures for key elements like "Visa Applications" or "Appointments" to organize and manage essential booking and application information.
- **Tabs Creation (Milestone 3):** Tabs in the CRM application offer quick access to essential features, such as "Appointments," "Payments," and "Support," streamlining navigation for efficient visa slot booking and management.
- **Relationship Between Objects (Milestone 4):** Relations between objects in the CRM application link data, enabling connections like "Visa Applications" to "Applicants," ensuring seamless tracking of applicants' visa-related information and interactions.

- **Field Creation (Milestone 5):** Field creation in the CRM application involves defining data attributes like "Appointment Date" or "Payment Status" to store and manage crucial information for visa slot booking and processing.
- **Apps (Milestone 6):** In the CRM application, "APPS" refers to the software's mobile applications, allowing users to access and manage visa slot booking and related tasks on their mobile devices for convenience.
- **Users (Milestone 7):** In the CRM application, a "User" refers to individuals who interact with the system, including applicants booking visa slots and administrative staff managing the process.
- **User Adoption (Milestone 8):** "User adoption" in the CRM application refers to the degree to which individuals successfully integrate and regularly use the system for booking visa slots, indicating its effectiveness.
- **What are Reports? (Milestone 9):** Reports are data summaries in the CRM application, presenting key insights into visa slot booking processes, helping administrators analyze trends and performance.
- **Dashboards (Milestone 10):** Dashboards in the CRM application are visual data displays, providing at-a-glance insights on visa slot booking metrics, enhancing decision-making and operational efficiency.
- In summary, the CRM application for visa slot booking streamlines the entire process. It efficiently manages user data, from the creation of objects and fields to the use of tabs for navigation. The relationship between objects ensures seamless tracking, while reports and dashboards offer essential insights. User adoption and mobile apps enhance accessibility, making this CRM system a comprehensive solution for efficient and user-friendly visa slot booking and management.

2.3 Technical Requirements



2.4 Functional Requirements

- **User Registration:** Users can create accounts with personal information for access to visa slot booking.
- **Login and Authentication:** Secure login mechanisms with password protection and multi -factor authentication.
- **Real-Time Slot Availability:** Constantly updated slot availability information from consulates and embassies.
- **Booking Slots:** Users can select and reserve visa appointment slots based on preferences.
- **Automated Notifications:** Automated email and SMS notifications for appointment confirmations, reminders, and updates.
- **Document Upload:** Capability to upload, view, and manage visa application documents.
- **Payment Integration:** Integration with secure payment gateways for online payment of visa fees.
- **User Profile Management:** Users can update and maintain their profiles with ease.
- **Slot Cancellation and Rescheduling:** Users can cancel and reschedule appointments as needed.
- **Reporting and Analytics:** Creation of comprehensive reports and data analytics for performance evaluation.
- **Admin Dashboard:** An admin panel to manage users, appointments, and system settings.

- **Integrated Support Chat:** A live chat system for real-time user assistance and issue resolution.
- **Data Security Measures:** Implementation of robust data encryption and security features.
- **Compliance with Data Protection Regulations:** Ensuring adherence to data privacy laws and regulations.
- **Efficient Slot Allocation:** Allocation of slots without overbooking or underutilizing consulate resources.
- **User Feedback Gathering:** Collection of user feedback and reviews for continuous improvement.
- **Multi-Language Support:** Support for multiple languages to cater to a diverse user base.
- **Support Ticket System:** A ticketing system for users to log and track support requests.
- **Payment Status Tracking:** Users can track the status of their payment for visa application fees.
- **User Training Materials:** Availability of training materials and user guides for effective usage.
- **Customizable Data Fields:** The ability to customize and add data fields to capture specific information.
- **Audit Trail Logging:** A record of all actions and changes for transparency and accountability.
- **User Notifications:** Email or SMS notifications to keep users informed about visa application status.

CHAPTER 3

PREPARATION DATA MODELING

Objects:

Objects are database tables that permit you to store data that is specific to an organization. Salesforce objects are of two types:

- 1) Standard objects.
- 2) Custom objects.

Object	Passport	Visa Slot	Payment
Fields	Full Name (Text)	Location (Text)	Payment Mode (Picklist)
Fields	Contact Number (Number)	Time (Data&Time)	Card Number (Number)
Fields	Passport Number (Text)	Visa Slot Number (Auto Number)	Transaction ID (Auto Number)
Fields	Permanent address (Text area)	Passport number (Master details)	Visa Slot Number (Master details)
Fields		Status(Picklist)	Cancel Transaction (Check Box)

1)Creation 0f Custom Object Passport:

For this Book My Visa Slot we need to create 3 objects

Passport, Visa Slot and

Payment. The below steps will assist you in creating those objects.

1. Click on the gear icon and then select Setup
2. Click on the object manager tab just beside the home tab

After the above steps, have a look on the extreme right you will find a Create Drop down click on that and select Custom Object

3. On the Custom Object Definition page, create the object as follows:
4. Label: Passport
5. Plural Label: Passports
6. Record Name: Passport Number
7. Check the Allow Reports checkbox
8. Check the Allow Search checkbox
9. Click Save.

The screenshot shows the Salesforce 'Edit Custom Object' page for 'Passport'. The page is titled 'Custom Object Definition Edit' and includes a 'Save' button. The 'Custom Object Information' section contains the following fields:

- Label:** Passport (Example: Account)
- Plural Label:** Passports (Example: Accounts)
- Starts with vowel sound:** ☐
- The Object Name is used when referencing the object via the API:**
 - Object Name:** Passport (Example: Account)
 - Description:** (Empty text area)
- Context-Sensitive Help Setting:**
 - ☒ Open the standard Salesforce.com Help & Training window
 - ☐ Open a window using a Visualforce page
- Content Name:** (None)

The 'Enter Record Name Label and Format' section includes a note: 'The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.' Below this, the **Record Name** is set to 'Passport Number' (Example: Account Name).

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name Example: Account Name

Data Type

Optional Features

☒ Allow Reports
☐ Allow Activities
☐ Track Field History
☐ Allow in Chatter Groups
☐ Enable Licensing [x](#)

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more.](#)

☒ Allow Sharing
☒ Allow Bulk API Access
☒ Allow Streaming API Access

Deployment Status [What is this?](#)

☐ In Development
☒ Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more.](#)

☒ Allow Search

2) Creation Of Custom Object-Visa Slot:

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Drop down click on that and select Custom Object

On the Custom Object Definition page, create the object as follows:

4. Label: Visa Slot
5. Plural Label: Visa Slots
6. Record Name: Visa Slot Number(Auto Number)
7. Check the Allow Reports checkbox
8. Check the Allow Search checkbox, Click Save.

Quick Find / Search...

Expand All | Collapse All

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- Translation Workbench

Edit Custom Object
Visa Slot

Save Save & New Cancel

Custom Object Definition Edit

Custom Object Information ! Required Information

The singular and plural labels are used in tabs, page layouts, and reports. Be careful when changing the name or label as it may affect existing integrations and merge templates.

Label Example: Account

Plural Label Example: Accounts

Starts with vowel sound ☐

The Object Name is used when referencing the object via the API.

Object Name Example: Account

Description

Context-Sensitive Help Setting ☒ Open the standard Salesforce.com Help & Training window ☐ Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name Example: Account Name

Data Management

- Mobile Administration
- Desktop Administration
- Outlook Integration and Sync
- Gmail Integration and Sync
- Email Administration
- Google Apps
- Analytics
- Tableau
- Data.com Administration

Build

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- Create
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 - Custom Labels
 - Interaction Log Layouts
 - Objects
 - Big Objects
 - Picklist Value Sets
 - Packages
 - Report Types
 - Tabs
 - Service Cloud Launch Pad
 - Action Link Templates
 - Global Actions
 - Workflow & Approvals
- Develop
- Lightning Bolt
- Schema Builder

Data Type

Optional Features

☒ Allow Reports

☐ Allow Activities

☐ Track Field History

☐ Allow in Chatter Groups

☐ Enable Licensing [?](#)

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more.](#)

☒ Allow Sharing

☒ Allow Bulk API Access

☒ Allow Streaming API Access

Deployment Status

[What is this?](#)

☐ In Development

☒ Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more.](#)

☒ Allow Search

Save Save & New Cancel

3) Create Of Custom Object- Payment:

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Drop down click on that and select Custom Object.
4. On the Custom Object Definition page, create the object as follows:
5. Label: Payment

6.Plural Label: Payments

7.Record Name: Transaction Id (Auto Number)

8.Check the Allow Reports check box

9.Check the Allow Search check box

10.Click Save.

The screenshot shows the 'Edit Custom Object' page for a custom object named 'Payment'. The page is titled 'Custom Object Definition Edit' and includes a 'Save' button, a 'Save & New' button, and a 'Cancel' button. The 'Custom Object Information' section contains the following fields:

- Label:** Payment (Example: Account)
- Plural Label:** Payments (Example: Accounts)
- Starts with vowel sound:** ☐
- The Object Name is used when referencing the object via the API:**
 - Object Name:** Payment (Example: Account)
 - Description:** (Empty text area)
- Context-Sensitive Help Setting:**
 - ☒ Open the standard Salesforce.com Help & Training window
 - ☐ Open a window using a Visualforce page
- Content Name:** (Dropdown menu showing 'None')

The 'Enter Record Name Label and Format' section contains the following fields:

- Record Name:** Transaction Id (Auto Number) (Example: Account Name)
- Data Type:** Text

The screenshot shows the 'Optional Features' section of the 'Custom Object Definition Edit' page for the 'Payment' object. The 'Data Type' is set to 'Text'.

Optional Features:

- ☒ Allow Reports
- ☐ Allow Activities
- ☐ Track Field History
- ☐ Allow in Chatter Groups
- ☐ Enable Licensing

Object Classification:

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more.](#)

- ☒ Allow Sharing
- ☒ Allow Bulk API Access
- ☒ Allow Streaming API Access

Deployment Status: [What is this?](#)

- ☐ In Development
- ☒ Deployed

Search Status:

When this setting is enabled, your users can find records of this object type when they search. [Learn more.](#)

- ☒ Allow Search

At the bottom of the page, there are buttons for 'Save', 'Save & New', and 'Cancel'.

Tabs:

Tab: A tab is like a user interface that used to build records for objects and to view the records in the objects. Tabs basically categorize into 4 different sections¹.

1. Standard Object Tabs
2. Custom Object Tabs
3. Web Tabs
4. Visualforce Tabs

1) Creation of Custom Tab- Passport Object:

Navigate to setup and home

1. Enter Tabs in Quick Find Box and select Tabs
2. Under Custom Object Tabs, click New
3. For Object, select Passport
4. For Tab Style, select any icon
5. Leave all defaults as is. Click Next, Next, and Save

The screenshot shows the Salesforce 'Edit Custom Object Tab' page for the 'Passports' object. The page is titled 'Edit Custom Object Tab: Passports'. Below the title, it says 'Fill in the fields below to define the custom tab.' The main section is 'Custom Tab Definition Edit'. Under 'Custom Object Tab Information', there are three fields: 'Tab Label' with the value 'Passports', 'Object' with the value 'Passport', and 'Tab Style' with a 'Diamond' icon. Below these fields, there is a note: '(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.' and a dropdown menu for 'Splash Page Custom Link' with the value '--None--'. At the bottom, there is a 'Save' button and a 'Cancel' button.

2) Creation Of Custom Tab- Visa Slot Object:

Navigate to setup and enter Tabs in Quick Find and select Tabs. Under Custom Object Tabs, click New.

1. For Object, select Visa Slot.
2. For Tab Style, select any icon.
3. Leave all defaults as is. Click Next, Next, and Save.

The screenshot shows the Salesforce 'Edit Custom Object Tab' page for the 'Visa Slots' custom object. The page is titled 'Edit Custom Object Tab: Visa Slots' and includes a 'Quick Find / Search' bar at the top. On the left sidebar, there are links for 'Lightning Experience Transition Assistant', 'Salesforce Mobile Quick Start', and 'Home'. The main content area is titled 'Custom Tab Definition Edit' and contains the following fields:

- Custom Object Tab Information:** A table with columns for Tab Label, Object, and Tab Style. The 'Tab Label' is 'Visa Slots', the 'Object' is 'Visa Slot', and the 'Tab Style' is 'Map'.
- (Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab:** A dropdown menu with the value '--None--'.
- Enter a short description:** A text area with the label 'Description'.

At the bottom of the form, there are 'Save' and 'Cancel' buttons.

3) Creation Of Custom Tab- Payment Object

Navigate to setup and enter Tabs in Quick Find and select Tabs Under Custom Object Tabs, click New

1. For Object, select Payment
2. For Tab Style, select any icon
3. Leave all defaults as is. Click Next, Next, and Save

Quick Find / Search...

Expand All | Collapse All

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Edit Custom Object Tab
Payments

Fill in the fields below to define the custom tab.

Custom Tab Definition Edit

Custom Object Tab Information ! Required Information

Tab Label **Payments**

Object **Payment**

Tab Style **Telescope**

(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.
Splash Page Custom Link **--None--**

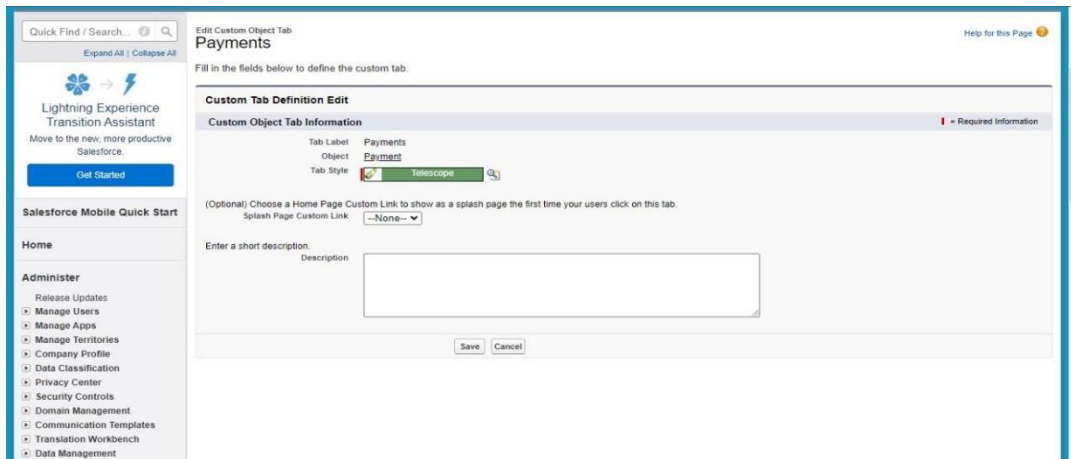
Enter a short description.
Description

[Save](#) [Cancel](#)

Creation Of Custom Tab- Payment Object

Navigate to setup and enter Tabs in Quick Find and select Tabs Under Custom Object Tabs, click New

1. For Object, select Payment
2. For Tab Style, select any icon
3. Leave all defaults as is. Click Next, Next, and Save



Relationship B/W Objects:

Relationship in Salesforce is a 2-way association between 2 objects. Using relationships, we can link objects with each other and we can make connections and display data about other related objects. Primarily there are two types of relationships:

1) Master detail relationship: A master-detail relationship defines the relationship between the parent and the child. The master table defines the parent relation and the detail defines the child relation. If the master table is deleted then the child record data is also deleted

2) Look up relationship: Lookup Relationship in Salesforce links two objects together but has no effect on deletion or security.

To Create a Master-Detail relationship between Passport and Visa Slot Objects.

1) Relationship Creation:

Fields Creation: Passport Number

Navigate to setup

1. Click on Object Manager and search and select Visa Slot object
2. Select Fields & Relations and click New.
3. Select Data Type: Master-Detail, next.

4. Related to: Passport, next.
5. Label: Passport Number
6. Child Relationship Name: Visa Slot, next.
7. Next, next and save.

The screenshot shows the 'Custom Field Definition Edit' page for a field named 'Passport Number'. The page is divided into several sections:

- Field Information:** Contains fields for 'Field Label' (Passport Number), 'Field Name' (Passport_Number), 'Description', 'Help Text', 'Data Owner' (User), 'Field Usage' (None), 'Data Sensitivity Level' (None), and 'Compliance Categorization' (Available: PII, HIPAA, GDPR, PCI; Chosen:).
- Master-Detail Options:** Contains 'Related To' (Passport), 'Child Relationship Name' (Visa_Slots), 'Related List Label' (Visa Slots), and 'Sharing Setting' (Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records).

This screenshot shows the same 'Custom Field Definition Edit' page for 'Passport Number', but with the 'Lookup Filter' section expanded. The 'Lookup Filter' section includes a link to 'Show Filter Settings' and a note: 'Optionally, create a filter to limit the records available to users in the lookup field. Tell me more!'. The 'Master-Detail Options' section is also visible, showing 'Related To' (Passport), 'Child Relationship Name' (Visa_Slots), 'Related List Label' (Visa Slots), and 'Sharing Setting' (Read/Write: Allows users with at least Read/Write access to the Master record to create, edit, or delete related Detail records).

Field Creation:

This milestone explains about Field Creation.

1)Fields Available On Custom Object:

Passport:Field Name Data Type

Full Name Text

Contact Number

NumberPassport

Number Text Permanent

Address Text

2) Field Creation: Full Name

Field Creation: Full Name:Navigate to Setup

2. Click the Object Manager next to Home Tab

3. Type Passport in Quick Find and Select it

4. Click on Fields and Relationships

5. Click New

6. Select Data Type: Text, click on next

7. Field Label: Full Name

8. Length: Max 80

9. Check always requires a value to save this record

10. Click next

11. Next, Save or Save & New (if further new field will be create)

Quick Find / Search... Expand All | Collapse All

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- Data Management
- Mobile Administration

Custom Field Definition Edit

Field Information

Field Label: Full Name Data Type: Text

Field Name: Full_Name

Description:

Help Text:

Data Owner: User

Field Usage: --None--

Data Sensitivity Level: --None--

Compliance Categorization

Available: PII, HIPAA, GDPR, PCI

Chosen:

General Options

Required: ☒ Always require a value in this field in order to save a record

Unique: ☐ Do not allow duplicate values

☐ Treat "ABC" and "abc" as duplicate values (case insensitive)

☐ Treat "ABC" and "abc" as different values (case sensitive)

External ID: ☐ Set this field as the unique record identifier from an external system

Default Value: [Show Formula Editor](#)

Field Information

Field Label: Contact Number Data Type: Text

Field Name: Contact_Number

Description:

Help Text:

Data Owner: User

Field Usage: --None--

Data Sensitivity Level: --None--

Compliance Categorization

Available: PII, HIPAA, GDPR, PCI

Chosen:

General Options

Required: ☒ Always require a value in this field in order to save a record

Unique: ☐ Do not allow duplicate values

☐ Treat "ABC" and "abc" as duplicate values (case insensitive)

☐ Treat "ABC" and "abc" as different values (case sensitive)

External ID: ☐ Set this field as the unique record identifier from an external system

Default Value: [Show Formula Editor](#)

Text Options

Length: 70

Change Field Type Save Cancel

3)Field Creation: Contact Number:

1. Navigate to Setup
2. Click the Object Manager next to Home Tab
3. Type Passport in Quick Find and Select it
4. Click on Fields and Relationships
5. Click New
6. Select Data Type: Number, click on next
7. Field Label: Contact Number
8. Length:
9. Next, Save
- 10 and Decimal 0, click

on next

The top screenshot shows the 'Custom Field Definition Edit' interface for a field named 'Contact Number'. The 'Field Information' tab is active, showing the field label, name, and description. The data type is set to 'Number'. The 'General Options' section includes checkboxes for 'Required', 'Unique', 'External ID', 'AI Prediction', and 'Default Value'. The 'Number Options' section shows the length set to 18 and decimal places set to 0.

The bottom screenshot shows the 'General Options' and 'Number Options' tabs for the same field. The 'General Options' section includes checkboxes for 'Required', 'Unique', 'External ID', 'AI Prediction', and 'Default Value'. The 'Number Options' section shows the length set to 18 and decimal places set to 0.

4)Field Creation: Permanent Address

1. Navigate to Setup
2. Click the Object Manager next to Home Tab
3. Type Passport in Quick Find and Select it
4. Click on Fields and Relationships
5. Click New
6. Select Data Type: Text Area, click on next
7. Field Label: Permanent Address
8. Next, next and save

Quick Find / Search... Expand All | Collapse All

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Edit Passport Custom Field
Permanent Address

[Change Field Type](#) [Save](#) [Cancel](#)

Custom Field Definition Edit Required Information

Field Information

Field Label: Data Type: Text Area

Field Name:

Description:

Help Text:

Data Owner:

Field Usage:

Data Sensitivity Level:

Compliance Categorization

Available	Chosen
PII	
HIPAA	
GDPR	
PCI	

General Options

Required: ☐ Always require a value in this field in order to save a record

Default Value: [Show Formula Editor](#)

Use formula syntax: Enclose text and picklist value API names in double quotes: ("the_text"), include numbers without quotes: (25), show percentages as decimals: (0.10), and express date calculations in the standard format: (Today() + 7). To reference a field from a Custom Metadata type record use: \$CustomMetadata.Type__mdt.RecordAPIName.Field__c

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- Translation Workbench
- Data Management
- Mobile Administration
- Desktop Administration
- Outlook Integration and Sync
- Gmail Integration and Sync
- Email Administration
- Google Apps
- Analytics
- Tableau
- Data.com Administration

Description

Help Text

Data Owner:

Field Usage:

Data Sensitivity Level:

Compliance Categorization

Available	Chosen
PII	
HIPAA	
GDPR	
PCI	

General Options

Required: ☐ Always require a value in this field in order to save a record

Default Value: [Show Formula Editor](#)

Use formula syntax: Enclose text and picklist value API names in double quotes: ("the_text"), include numbers without quotes: (25), show percentages as decimals: (0.10), and express date calculations in the standard format: (Today() + 7). To reference a field from a Custom Metadata type record use: \$CustomMetadata.Type__mdt.RecordAPIName.Field__c

[Change Field Type](#) [Save](#) [Cancel](#)

5)Fields Available On Custom Object: Visa Slot Field Name Data Type

Location Text

Time Date &

Time

Visa Slot Number Auto Number (Use in Record
Name)

Passport Number Master-Detail

Status Picklist

Quick Find / Search...

Expand All | Collapse All

Lightning Experience Transition Assistant

Move to the new, more productive Salesforce.

Get Started

Salesforce Mobile Quick Start

Home

Administer

Release Updates

Manage Users

Manage Apps

Manage Territories

Company Profile

Data Classification

Privacy Center

Security Controls

Domain Management

Communication Templates

Translation Workbench

Data Management

Edit Visa Slot Custom Field

Status

Help for this Page

Custom Field Definition Edit

Change Field TypePromote to Global Value SetSaveCancel

Field Information

Field LabelStatus

Field NameStatus

Description

Help Text

Data OwnerUser

Field Usage--None--

Data Sensitivity Level--None--

Compliance Categorization

Available

PII

HIPAA

GDPR

PCI

Chosen

General Options

Required

☐ Always require a value in this field in order to save a record

Default Value

Show Formula Editor

Use formula syntax: Enclose text and picklist value API names in double quotes ("the_text"). Include numbers without quotes (25), show percentages as decimals (0.10), and express date calculations in the standard format: {Today() + 7}. To reference a field from a Custom Metadata type record use: \$CustomMetadata.Type__mdt.RecordAPIName.Field__c

Administer

Release Updates

Manage Users

Manage Apps

Manage Territories

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Outlook Integration and Sync

Gmail Integration and Sync

Email Administration

Google Apps

Analytics

Tableau

Data.com Administration

Build

Customize

Create

Apps

Custom Labels

Interaction Log Layouts

Objects

See Objects

Compliance Categorization

Available

PII

HIPAA

GDPR

PCI

Chosen

General Options

Required

☐ Always require a value in this field in order to save a record

Default Value

Show Formula Editor

Use formula syntax: Enclose text and picklist value API names in double quotes ("the_text"). Include numbers without quotes (25), show percentages as decimals (0.10), and express date calculations in the standard format: {Today() + 7}. To reference a field from a Custom Metadata type record use: \$CustomMetadata.Type__mdt.RecordAPIName.Field__c

Picklist Options

☒ Restrict picklist to the values defined in the value set

Change Field Type

Promote to Global Value Set

Save

Cancel

6)Fields Available On Custom Object: Payment

Field Name Data Type

Payment Mode Picklist (Values- Debit Card, Credit Card) CardNumber
Number

Transaction Id Auto Number (Used in Record Name) Visa

Slot Number Master-Detail

Cancel Transaction Text

Apps:

Apps in Salesforce are a group of tabs that help the application function by working together as a unit. It has a name, a logo, and a particular set of tabs. The simplest app usually has just two tabs.

There are two types of Salesforce Applications:

- 1) Standard Apps
- 2) Custom Apps

1)Creation Of App:

Click on setup and go to home page.

1. In Quick Find Box search and select App Manager.
2. Click: New Lightning App.
3. App Name: Book My Visa and click on next.
4. Navigate System: Standard Navigation Support
Form Factor: Desktop and Phone Click next, next
5. Move Objects from available items to selected items. (Passport, Visa Slot, Payment).

6. Add System Administrator profile, available profile to selectedprofile.

Save & Finish

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

App Details

*App Name ⓘ

Book My Visa

*Developer Name ⓘ

Book_My_Visa

Description ⓘ

Enter a description...

App Branding

Image ⓘ

Upload

Primary Color Hex Value ⓘ

#0070D2

Org Theme Options

☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview

BM

Book My Visa

Lightning App Builder

App Settings

Pages

Book My Visa

Help

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

App Options

Navigation and Form Factor ⓘ

*Navigation Style

Standard navigation

Console navigation

*Supported Form Factors

Desktop and phone

Desktop

Phone

Setup and Personalization ⓘ

Setup Experience

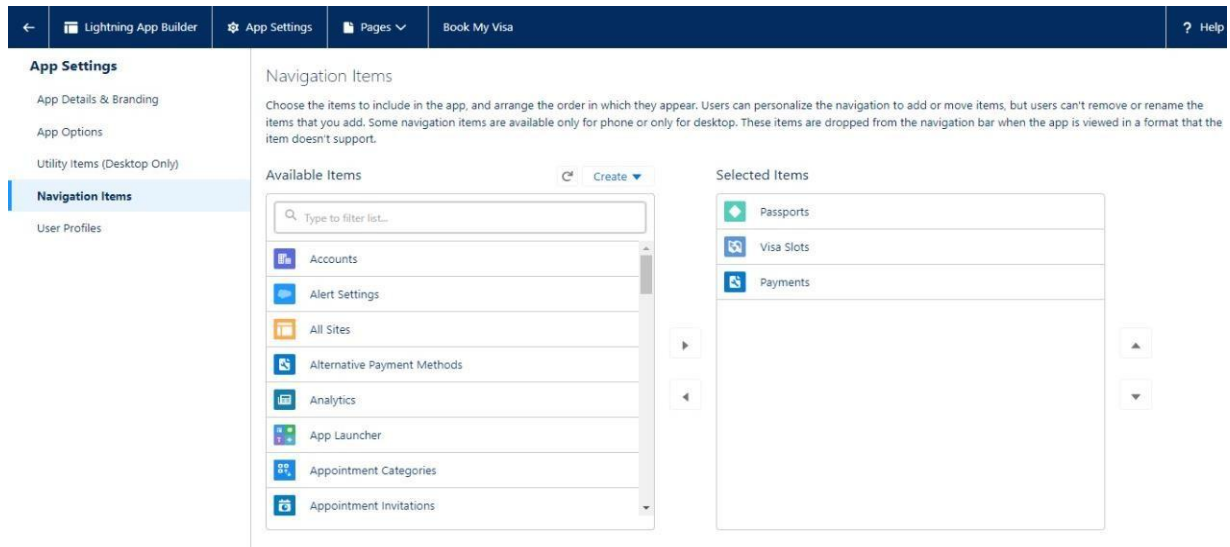
Setup (full set of Setup options)

Service Setup

App Personalization Settings

☐ Disable end user personalization of nav items in this app

☐ Disable temporary tabs for items outside of this app



User:

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account.

NOTE- As Salesforce license can only be used by 2 Users at a time in Dev Org, so If you don't find Salesforce license then deactivate a user who has Salesforce license or change the license type from Salesforce to any other

1)Creation Of User:

Navigate to setup

1. In Quick Find box select and search: User
2. Click: New user
3. Give First and Last Name
4. Enter your email in the email field
5. Enter user name, it must be unique

6. User license: salesforce platform
7. In the profile field: Standard user profile
8. Check, Generate new password and notify user immediately
9. Save

The screenshot shows the 'User Edit' page for 'User A' in Salesforce. The page is divided into a left sidebar and a main content area. The sidebar contains navigation links for 'Lightning Experience Transition Assistant', 'Salesforce Mobile Quick Start', 'Home', and 'Administer'. The 'Administer' section is expanded, showing options like 'Release Updates', 'Manage Users', and 'Users'. The main content area is titled 'User Edit' and has buttons for 'Save', 'Save & New', and 'Cancel'. It is divided into two tabs: 'General Information' and 'Advanced Information'. The 'General Information' tab is active, showing fields for 'First Name' (User), 'Last Name' (A), 'Alias' (ua), 'Email' (usera@gmail.com), 'Username' (l@gmail.com), 'Nickname' (User169624377396991145), 'Title' (Records), 'Company' (ZORA), 'Department' (Computer science), and 'Division' (A). The 'Advanced Information' tab shows fields for 'Role' (CEO), 'User License' (Salesforce Integration), 'Profile' (Salesforce API Only System Integrations), 'Active' (checked), 'Marketing User' (unchecked), 'Offline User' (unchecked), 'Knowledge User' (unchecked), 'Flow User' (unchecked), 'Service Cloud User' (unchecked), 'Site.com Contributor User' (unchecked), 'Site.com Publisher User' (unchecked), 'WDC User' (unchecked), 'Data.com User Type' (--None--), 'Data.com Monthly Addition Limit' (300), 'Accessibility Mode (Classic Only)' (unchecked), 'High-Contrast Palette on Charts' (unchecked), 'Load Lightning Pages While Scrolling' (checked), and 'Debug Mode' (unchecked). A red bar at the top right of the main content area indicates 'Required Information'.

The screenshot shows the 'Single Sign On Information' page in Salesforce. The page is divided into a left sidebar and a main content area. The sidebar contains navigation links for 'Develop', 'Lightning Bolt', 'Schema Builder', 'Lightning App Builder', 'Canvas App Previewer', 'Installed Packages', 'Package Usage', 'AppExchange Marketplace', 'Deploy', 'Deployment Settings', 'Deployment Status', 'Monitor', 'System Overview', 'Optimizer', 'Imports', 'Outbound Messages', 'Time-Based Workflow', 'Automated Process Actions', 'Case Escalations', 'Entitlement Processes', 'API Usage Notifications', 'Mass Emails', 'Email Snapshots', 'Jobs', and 'Logs'. The main content area is titled 'Single Sign On Information' and has buttons for 'Save', 'Save & New', and 'Cancel'. It is divided into three tabs: 'Single Sign On Information', 'Locale Settings', and 'Approver Settings'. The 'Single Sign On Information' tab is active, showing fields for 'Federation ID' and 'Locale Settings' (Time Zone: (GMT+05:30) India Standard Time (Asia/Kolkata), Locale: English (India), Language: English). The 'Approver Settings' tab shows fields for 'Delegated Approver', 'Manager', and 'Receive Approval Request Emails' (Only if I am an approver). A checkbox for 'Generate new password and notify user immediately' is checked. A red bar at the top right of the main content area indicates 'Required Information'.

OWD: Organization Wide Defaults Settings:

OWD settings determine the baseline level of access for all records of an object. This can be used to give permission to the organization wide and it can be used for restrict the access; we can control the record level access.

OWD can never grant users more access than they have through their object permission.

Primarily four types of access can be set in Salesforce OWD-

1. Public read/write/transfer (Only available for Leads and Cases)
2. Public read/write
3. Public read only
4. Private

Steps of OWD settings:

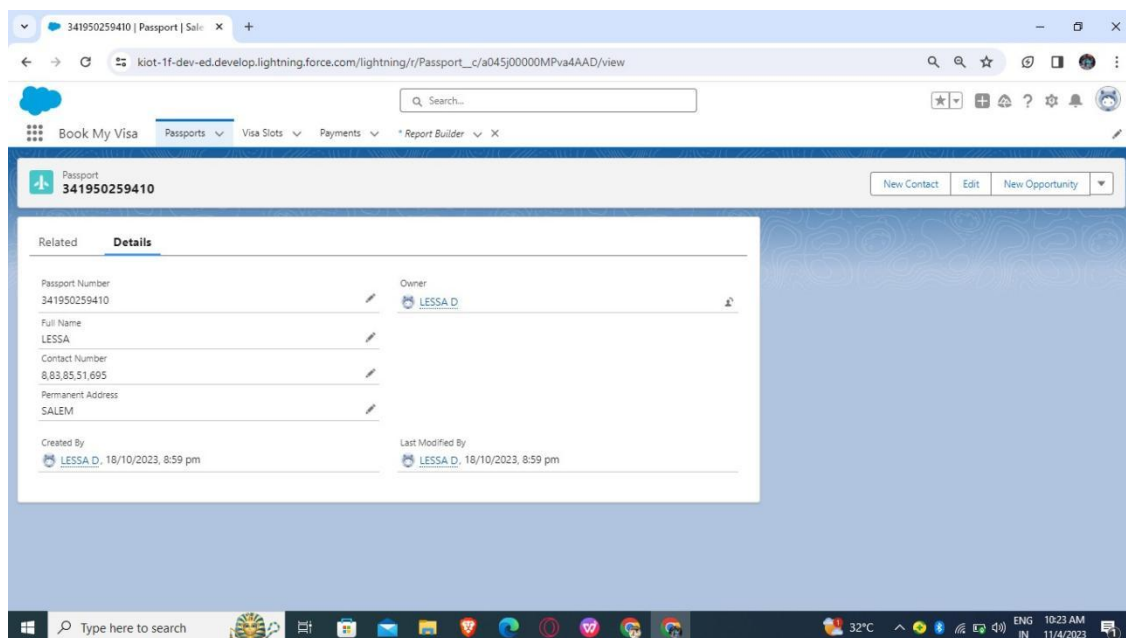
Navigate setup in Quick Find search bar

1. Type Sharing Setting and Select it.
2. Edit: Organization Wide Defaults.
3. Scroll down list and select Passport.

OWD settings determine the baseline level of access for all records of an object. This can be used to give permission to the organization wide and it can be used for restrict the access; we can control the record level access.

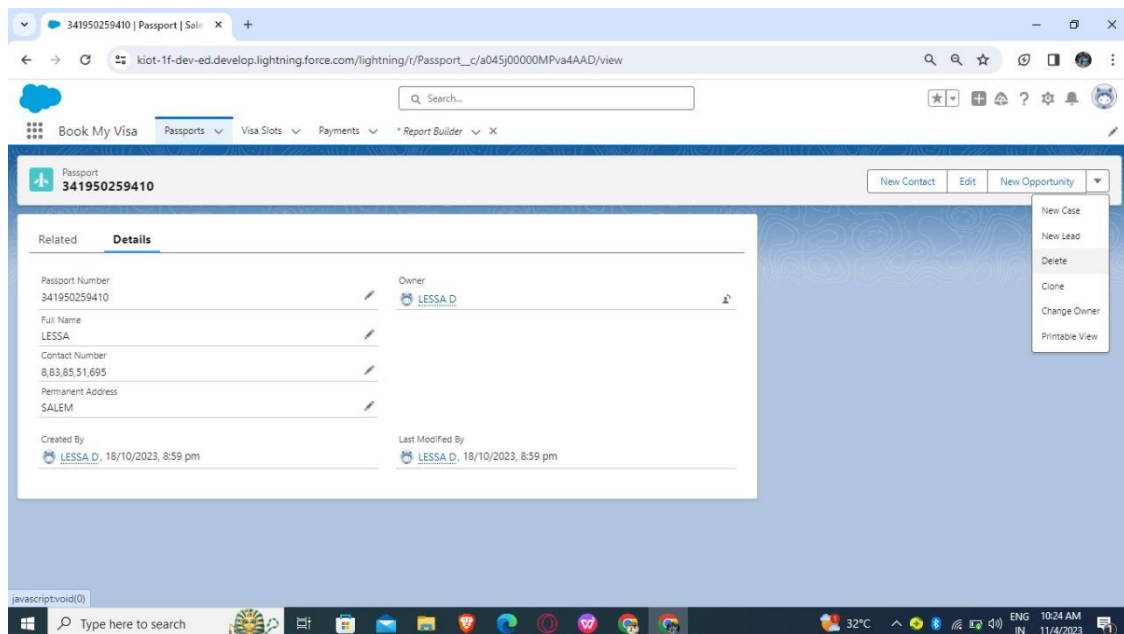
2)View Records (Passport):

1. Click on App Launcher on left side of screen.
2. Search Book My Visa & click on it.
3. Click on Passport Tab.
4. Click on any record name. you can see the details of the Driver



3)Delete Records (Passport):

1. Click on App Launcher on left side of screen.
2. Search Book My Visa & click on it.
3. Click on Passport Tab.
4. Click on Arrow at right hand side on that Particular record.
5. Click delete and delete again



What Are Reports?

Reports in Salesforce is a list of records that meet a particular criterion which gives an answer to a particular question. These records are displayed as a table that can be filtered or grouped based on any field.

There are 4 types of report formats in Salesforce:

1. Tabular Reports:

This is the most basic report format. It just displays the row of records in a table with a grand total. While easy to set up they can't be used to create groups of data or charts and also cannot be used in Dashboards. They are mainly used to generate a simple list or a list with a grand total.

2. Summary Reports:

It is the most commonly used type of report. It allows grouping of rows of data, view subtotal, and create charts.

3. Matrix Report:

It is the most complex report format. Matrix report summarizes information in a grid format. It allows records to be grouped by both columns and rows. It can also be used to generate dashboards. Charts can

be added to this type of report.

4 Joined Reports:

These types of reports let us create different views of data from multiple report types. The data in joined reports are organized in blocks. Each block acts as a sub report with its own fields, columns, sorting, and filtering. They are used to group and show data from multiple report types in different views.

5. Report Type:

Report type determines which set of records will be available in a report. Every report is based on a particular report type. The report type is selected first when we create a report. Every report type has a primary object and one or more related objects. All these objects must be linked together either directly or indirectly.

1. A report type cannot include more than 4 objects.

2. Once a report is created its report type cannot be changed.

There are 2 types of report types:

1. Standard Report Types:

Standard Report Types are automatically included with standard objects and also with custom objects where “Allow Reports” is checked.

Standard report types cannot be customized and automatically include standard and custom fields for each object within the report type. Standard report types get created when an object is created, also when a relationship is created.

Note: Standard report types always have inner joins.

2. Custom Report Types:

Custom report types are reporting templates created to streamline the reporting process. Custom Reports are created by an administrator or User with “Manage

Custom:

Report Types” permission. Custom report types are created when standard report types cannot specify which records will be available on reports.

In custom report types we can specify objects which will be available in a particular report. The primary object must have a relationship with other objects present in a report type either directly or indirectly.

There are 3 types of access levels of folders:

1. Viewer:

With this access level, users can see the data in a report but cannot make any changes except cloning it into a new report.

2. Editor:

With this access level, users can view and modify the reports it contains and can also move them to/from any other folders they have access level as Editor or Manager.

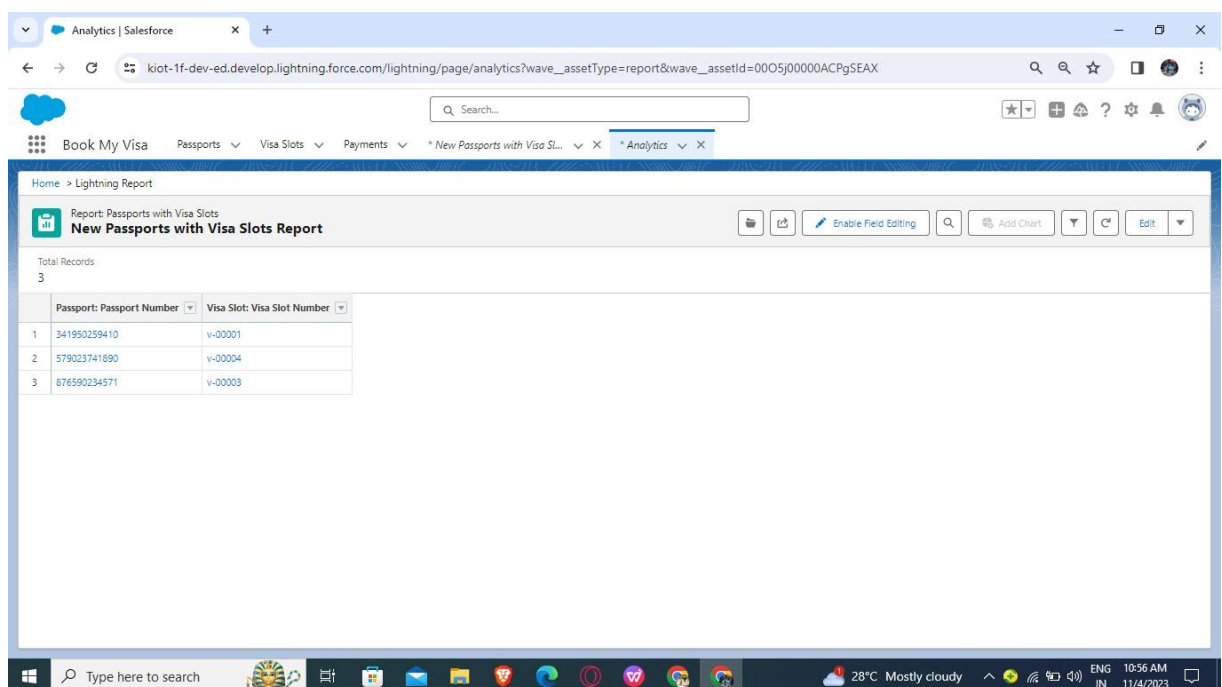
3. Manager:

With this access level, users can do everything Viewers & Editors can do, plus they can also control other user’s access levels to this folder. Also, users with Manager Access levels can delete the report.

1)Creation of report:

Note- While creation of report ensures that update preview automatically is selected which is available at the right side of the report page.

1. Click on App Launcher left side on the screen, Search and select: Report
2. Click Report- select New Report
3. Select Report Type: Passport with Visa Slot Number
4. Click on Start Report button
5. Below the Outline pane- In the Group Row select: Location
6. In Group Column select- Passport: Passport Number
7. In Column select: Visa Slot Number
8. Now navigate to Filter pane available next to Outline pane And ensure in the show me section: All Passport is selected
9. In Passport Created date: All Time.
10. Give the Label: Passport with Visa Location
11. Save & Run for saving the Report, Save.



View Report:

1)View Report:

1. Click on App Launcher on left side of screen.
2. Search Book My Visa App & click on it.
3. Click on Reports Tab.
4. Click on Passport with Visa Location and see reports

The screenshot displays the Salesforce Analytics interface. The browser address bar shows the URL: `kiot-1f-dev-ed.develop.lightning.force.com/lightning/page/analytics?wave__assetType=report&wave__assetId=0005j00000ACPgSEAX`. The Salesforce navigation bar includes tabs for 'Book My Visa', 'Passports', 'Visa Slots', 'Payments', and 'Analytics'. The 'Analytics' tab is active, showing a 'Lightning Report' titled 'Report: Passports with Visa Slots' and 'New Passports with Visa Slots Report'. The report displays 'Total Records: 3' and a table with two columns: 'Passport: Passport Number' and 'Visa Slot: Visa Slot Number'.

	Passport: Passport Number	Visa Slot: Visa Slot Number
1	341950259410	v-00001
2	579023741890	v-00004
3	876590234571	v-00003

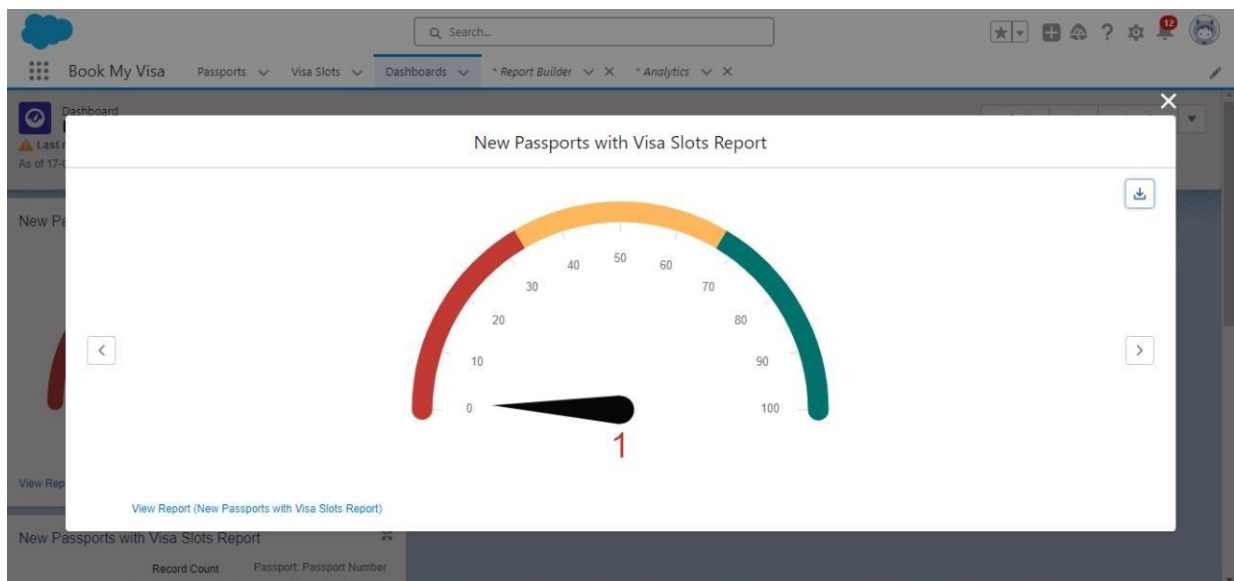
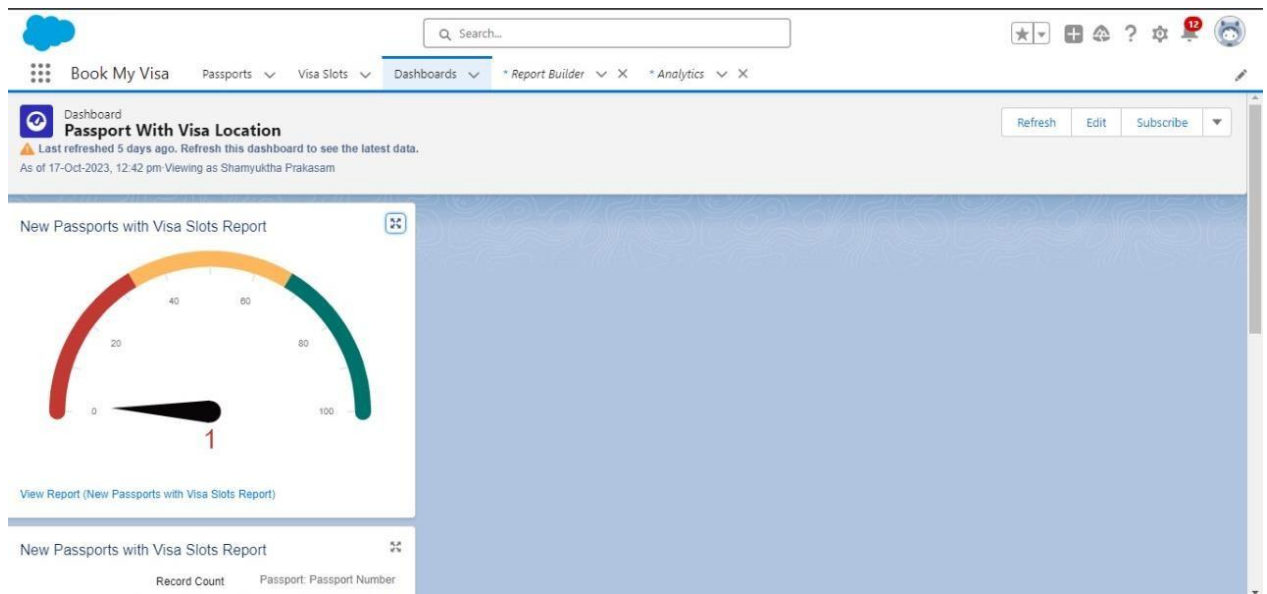
The bottom of the screenshot shows the Windows taskbar with the search bar, task icons, and system tray information including weather (28°C Mostly cloudy), language (ENG IN), and date/time (10:56 AM 11/4/2023).

Dashboards:

Dashboards in Salesforce are a graphical representation of Reports. It shows data from source reports as visual components. These components provide snapshots of key metrics and performance indicators of the organization at a glance. Reports can be displayed in the dashboard like: Horizontal Bar chart, Vertical Bar Chart, Line Chart, Donut Chart, Metric Chart, Stacked Vertical Bar Chart, Stacked Horizontal Bar Chart, etc.

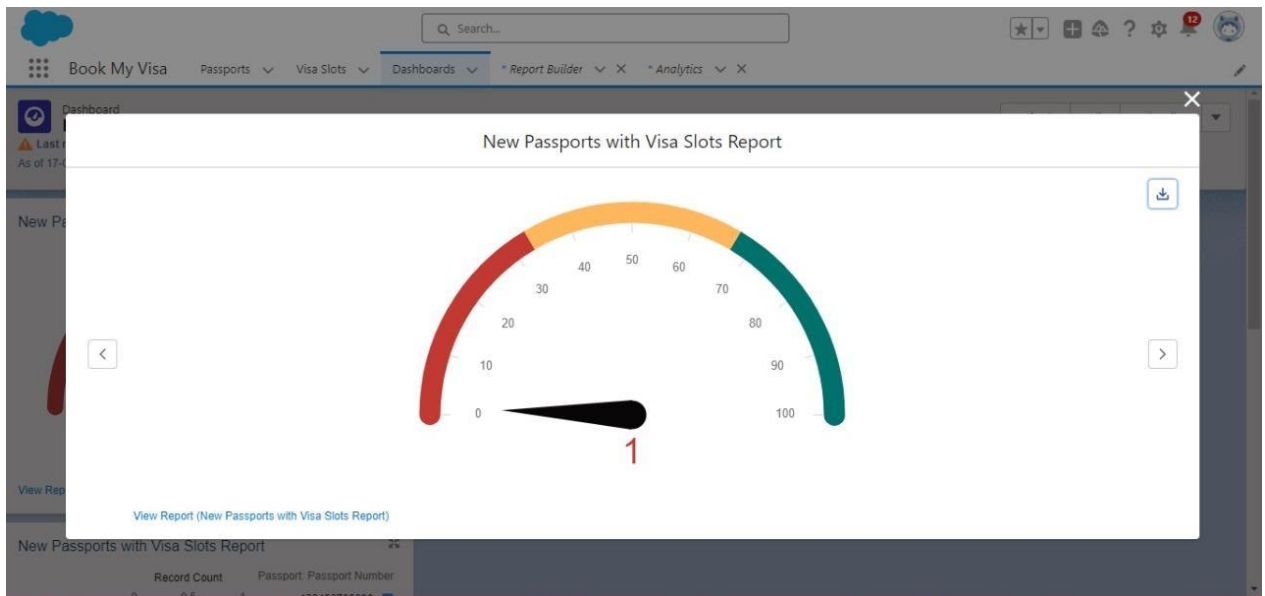
1) Creation Of Dashboard

1. Click on the App launcher left on screen and search for dashboards.
2. Select New Dashboard
3. Name the Dashboard: Passport With Visa Location
4. Select Create option
5. Click on Add Component
6. Select Passport with Visa Locations
7. Click Select
8. Select the Donut Chart to display a section
9. Value: Record count
10. Sliced By: Location
11. Leave the default values
12. Click on Add
13. Save the Dashboard and Done



2)View Dashboard:

1. Click on App Launcher on left side of screen.
2. Search Book My Visa & click on it.
3. Click on Dashboard Tab.
4. Click on Passport with Visa Location see graph view of records



APEX:

Apex is a coding language of Salesforce. It can be invoked or started using triggers. A trigger is a set of Apex code that runs before or after data manipulation language (DML) events.

With Apex triggers, you can automate tasks that would otherwise be nearly impossible to accomplish using only the Salesforce user interface. Triggers enable you to create custom scripts that you can implement according to your needs, and the only limitation is your coding skills.

There are two Salesforce Apex trigger types:

Before triggers. These are helpful in cases that require a validation process before accepting a change. They run before any database changes.

After triggers. These are helpful in cases where you need to modify your database records and when the necessary value is stored in other records. They run after any database changes.

1)APEX:

1. Click on Set up Gear at drop down list you can find developer console click on that.
2. At the left side top you can find the option new click on that and then apex trigger.
3. Give the name as Deletionofvisarecord
4. And S object has Visa Object
5. Scenario - You cannot delete active visa record

trigger Deletionifvisarecord on Visa_Slot_____c (before delete) {

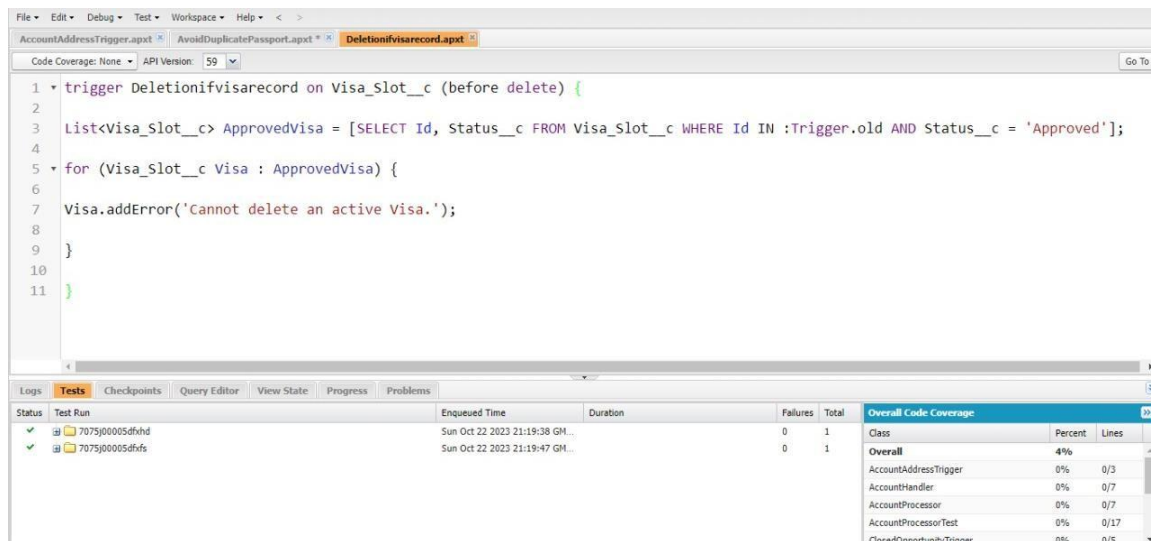
List<Visa_Slot_c> ApprovedVisa = [SELECT Id, Statusc FROM Visa_Slotc
WHERE Id IN :Trigger.old AND Status_c = 'Approved'];

for (Visa_Slot____c Visa : ApprovedVisa) {

Visa.addError('Cannot delete an active Visa.');

}

}



2)APEX :

- 1) Click on Set up Gear at drop down list you can find developer console click on that.
- 2) At the left side top you can find the option new click on that and then apex trigger.
- 3) Give the name as AvoidDuplicatePassport
- 4) And S object has Passport Object
- 5) Scenario - trigger on the Passport_c object to avoid duplicate records based on the Full Name and Contact Number fields. trigger AvoidDuplicatePassports on Passport_c (before insert, before update)

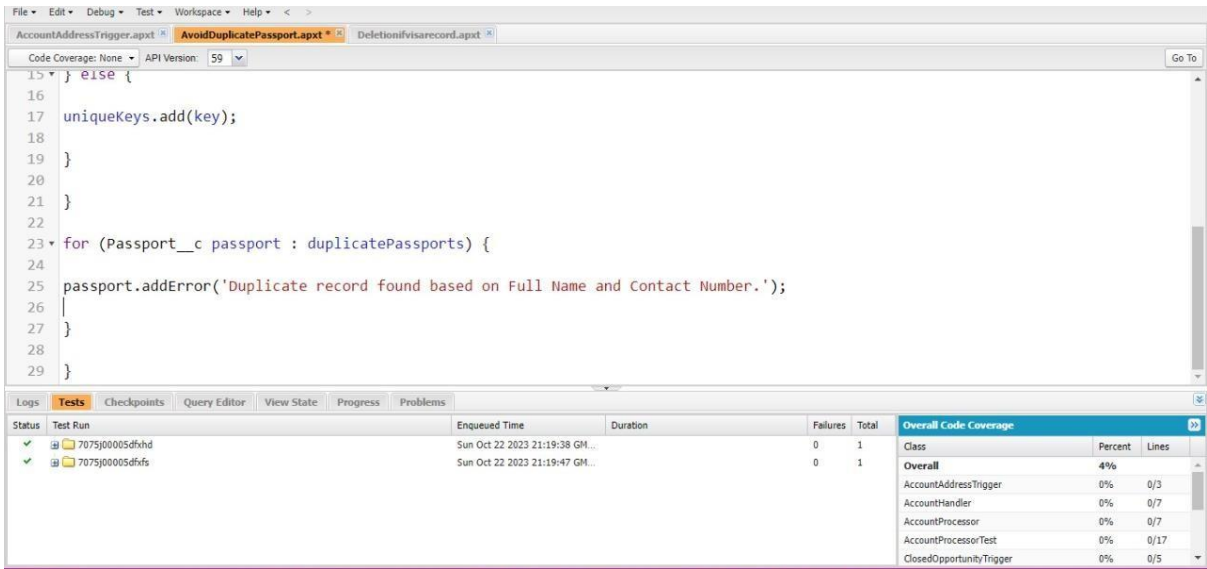
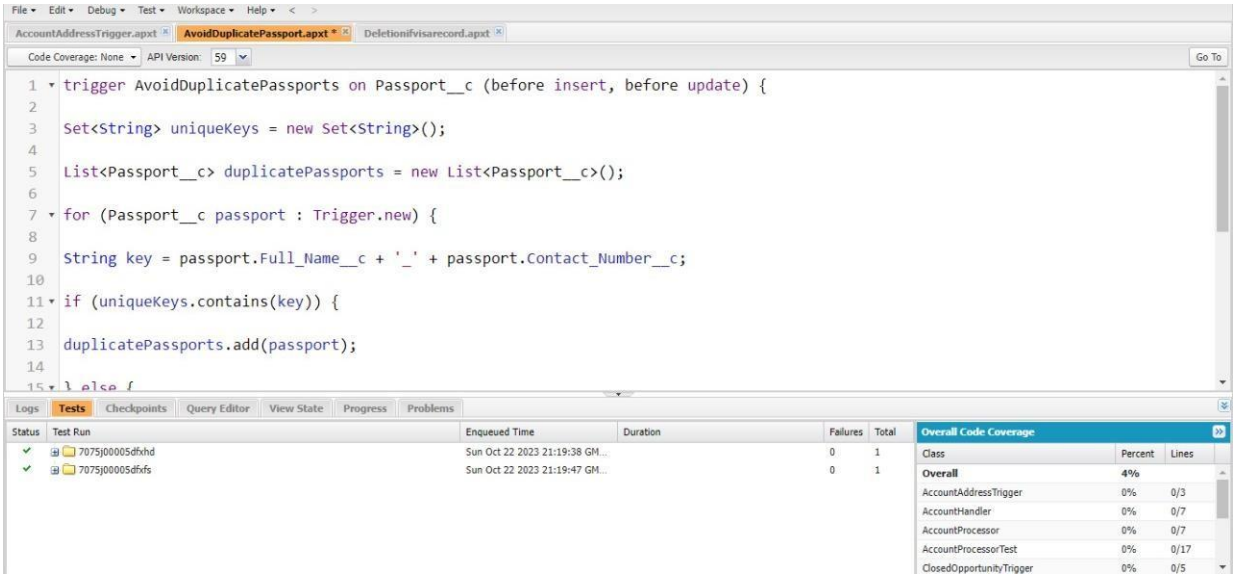
```

{

Set<String> uniqueKeys = new Set<String>(); List<Passport_c>
duplicatePassports = new List<Passport_c>();for (Passport___c
passport : Trigger.new) {
String      key      =      passport.Full_Name_c      +      "
+passport.Contact_Number____c;
if (uniqueKeys.contains(key))
{ duplicatePassports.add(passport);

} else
{ uniqueKeys.add(key);
}
}
for (Passport___c passport : duplicatePassports) {

passport.addError('Duplicate record found based on Full Name andContact
Number.');
```



CHAPTER 6

REPORT AND DASHBOARD

Git Hub&project Video demo Link

1.Git Hub Link :

<https://github.com/nandhakumaran1406/naanmuthalvan-Salesforce-NM2023TMID02263-KIOT>

2.Video Demo Link:

https://drive.google.com/file/d/1TplqbjTBKU_MkxS86db8YTJ-8zZMrUXb/view?usp=drivesdk