



GOVERNMENT OF TAMILNADU

Naan Muthalvan - Project-Based Experiential Learning

A REVIEW OF LIVER PATIENT ANALYSIS METHODS USING MACHINE LEARNING

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M.V.MUTHIAH GOVERNMENT ARTS COLLEGE FOR WOMEN

B(Affiliated To Mother Teresa Women's University,
Kodaikanal)

Reaccredited with "A" Grade by NAAC

DINDIGUL-624001.

APRIL - 2023

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BONAFIDE CERTIFICATE

This is to certify that this is a bonafide record of the project entitled, CRM APPLICATION THAT HELPS TO BOOK A VISA SLOT" done by Ms. P. Nanthini (20321ER051) , Ms. R. Nandhini (20321ER052) , Ms. R.Naveena (20321ER054) and Ms.P A. Niranjanakeerthi (20321ER055) .This is submitted in partial fulfillment for the award of the degree of Bachelor of Science in Mathematics in M.V.MUTHIAH GOVERNMENT ARTS COLLEGE FOR WOMEN,DINDIGUL during the period of December 2022 to April 2023.

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Head of the

Submitted for viva-voce Examination held on 12/04/2023

CRM APPLICATION THAT HELPS TO BOOK A VISA SLOT

1. Introduction

1.1. Overview

A visa slot management project is a system that is used to track and manage the availability of visa

slots, which are appointments that are required for certain visa applications. It might be used by a

government agency or a visa processing center to schedule and manage appointments with applicants.

1.2 Purpose

Salesforce is your customer success platform, designed to help you sell, service, market,

analyze, and connect with your customers.

Salesforce has everything you need to run your business from anywhere. Using standard

products and features, you can manage relationships with prospects and customers,

collaborate and engage with employees and partners, and store your data securely in the

cloud.

2. Problem Definition & Design Thinking

2.1 Empathy Map

Template



Empathy map

Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

Build empathy:
The information you add here should be representative of the observations and research you've done about your users.

See:
What is the user's job title or role? What do they do in their current role?

Allows:
[Project managers] project managers that are used, correct and manage the availability of your staff

Thinks:
What are the user's goals, aspirations and dreams? What do they want to happen? What do they need?

Sum of the activities permitted on site/visits:

We are allowed to use the site for 20 sessions a day:

Participating in work related training:

Temporary user for business:

Notification are stopped after booking a visa slot:

Visiting family members:

Going on vacation:

Attending business meeting:

It is used to travel from one country to another country:

Plans:
What are the user's short term and long term goals? What are they trying to achieve?

Observations:
What are the user's strengths, weaknesses, interests, hobbies, etc.?

Feedback:
What are the user's likes, dislikes, opinions, and suggestions?

Icons:
A grid of icons representing various user needs and pain points.

2.2 Ideation & Brainstorming Map

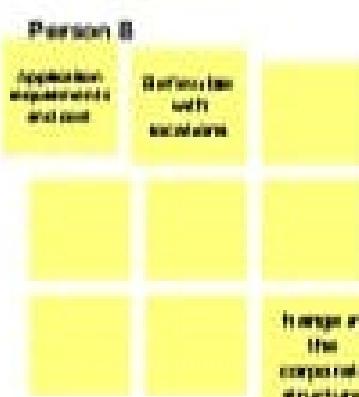
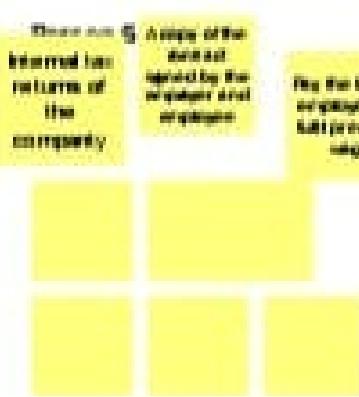
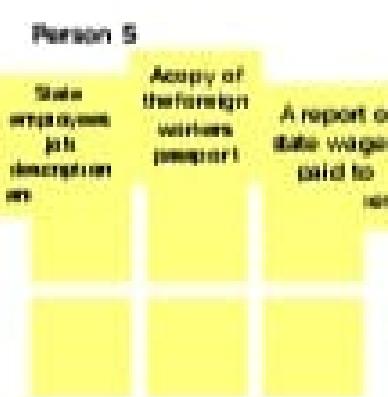
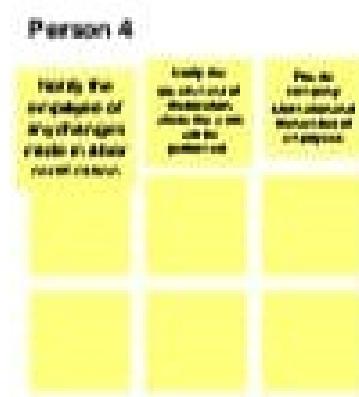
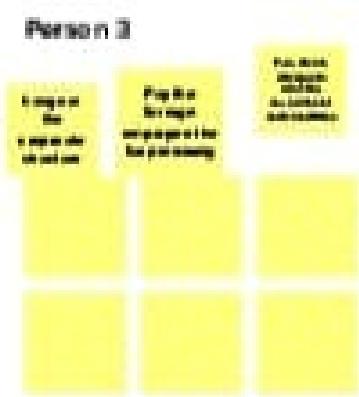
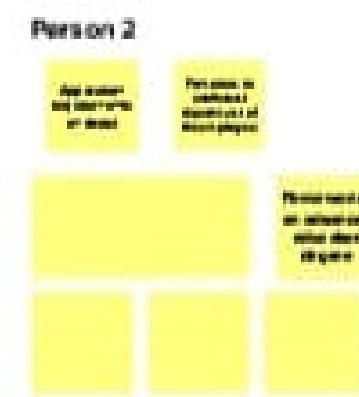
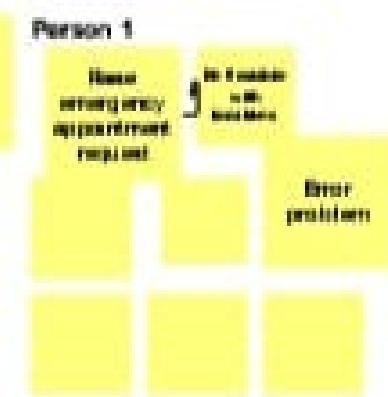
2

Brainstorm

Write down any ideas that come to mind that address your problem statement.

⌚ 10 minutes

TIP
You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!



3.RESULT

3.1 Data Model

Object Name	Fields in the object													
Passport	<table border="1"><thead><tr><th>FIELD LABEL</th><th>DATA TYPE</th></tr></thead><tbody><tr><td>Contact Number</td><td>Number</td></tr><tr><td>Full Name</td><td>Text</td></tr><tr><td>Passport Number</td><td>Number</td></tr><tr><td>Permanent Address</td><td>Text</td></tr></tbody></table>		FIELD LABEL	DATA TYPE	Contact Number	Number	Full Name	Text	Passport Number	Number	Permanent Address	Text		
FIELD LABEL	DATA TYPE													
Contact Number	Number													
Full Name	Text													
Passport Number	Number													
Permanent Address	Text													
Visa slot	<table border="1"><thead><tr><th>FIELD LABEL</th><th>DATA TYPE</th></tr></thead><tbody><tr><td>Location</td><td>Text Area</td></tr><tr><td>Time</td><td>Number</td></tr><tr><td>Passport Number(Master)</td><td>Number</td></tr><tr><td>Visa slot number</td><td>Number</td></tr></tbody></table>		FIELD LABEL	DATA TYPE	Location	Text Area	Time	Number	Passport Number(Master)	Number	Visa slot number	Number		
FIELD LABEL	DATA TYPE													
Location	Text Area													
Time	Number													
Passport Number(Master)	Number													
Visa slot number	Number													
Payment	<table border="1"><thead><tr><th>FIELD LABEL</th><th>DATA TYPE</th></tr></thead><tbody><tr><td>Payment Mode</td><td>Text</td></tr><tr><td>Card Number</td><td>Number</td></tr><tr><td>Transaction id(Auto Number)</td><td>Number</td></tr><tr><td>Cancel Transaction</td><td>Text</td></tr><tr><td>Visa Slot Number(Master)</td><td>Number</td></tr></tbody></table>		FIELD LABEL	DATA TYPE	Payment Mode	Text	Card Number	Number	Transaction id(Auto Number)	Number	Cancel Transaction	Text	Visa Slot Number(Master)	Number
FIELD LABEL	DATA TYPE													
Payment Mode	Text													
Card Number	Number													
Transaction id(Auto Number)	Number													
Cancel Transaction	Text													
Visa Slot Number(Master)	Number													
Reschedule / Cancel	<table border="1"><thead><tr><th>FIELD LABEL</th><th>DATA TYPE</th></tr></thead><tbody><tr><td>Passport Number(Master)</td><td>Number</td></tr><tr><td>Location</td><td>Text</td></tr><tr><td>Time</td><td>Number</td></tr><tr><td>Cancel</td><td>Text</td></tr><tr><td>Status</td><td>Text</td></tr></tbody></table>		FIELD LABEL	DATA TYPE	Passport Number(Master)	Number	Location	Text	Time	Number	Cancel	Text	Status	Text
FIELD LABEL	DATA TYPE													
Passport Number(Master)	Number													
Location	Text													
Time	Number													
Cancel	Text													
Status	Text													

3.2 Activity & Screenshot

Milestone – 1 :

Activity 1 :

Creating Developer Account

Creating a developer org in salesforce.

1. Go to [developers.salesforce.com/](https://developer.salesforce.com/)
2. Click on sign up.
3. On the sign up form, enter the following details :
 1. First name & Last name
 2. Email
 3. Role : Developer
 4. Company : College Name
 5. County : India
 6. Postal Code : pin code
 7. Username : should be a combination of your name and company

This need not be an actual email id, you can give anything in the

format :

username@organization.com

Click on sign up after filling these.

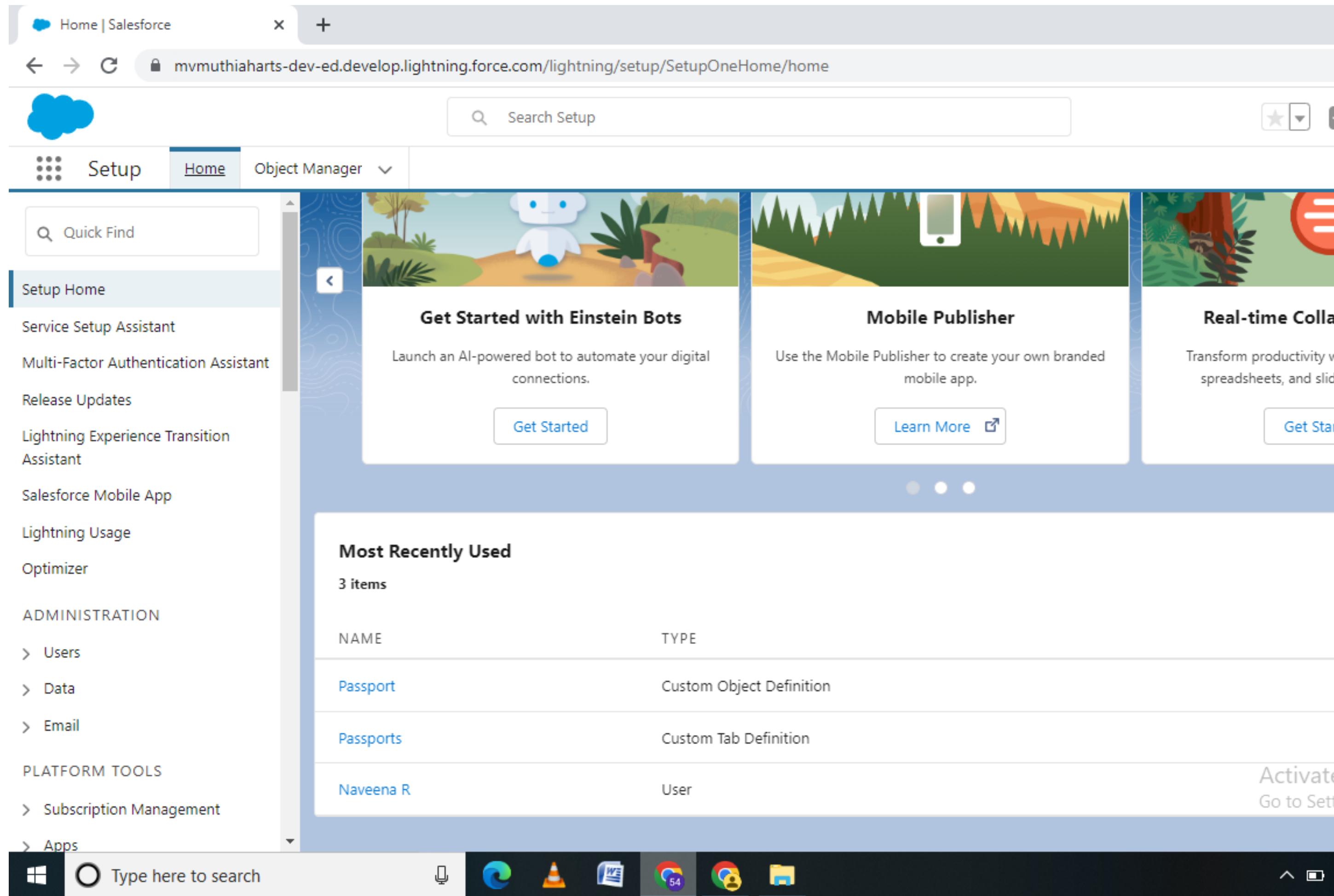
Account Activation

Go to the inbox of the email that you used while signing up. Click on the verify account to

activate your account. The email may take 5-10mins, as

Login To Your Salesforce Account

- 1.Go to salesforce.com and click on login.
- 2.Enter the username and password that you just created.
- 3.After login this is the home page which you will see.



Salesforce Login

<https://login.salesforce.com>

Milestone-2: 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.

Objects involved in Book my visa are:

Activity-1:

Creation of custom object: Passport

- 1) Navigate to setup and select object manager.
- 2) At the top of the right side there you can find create custom object.
- 3) You will navigate to custom object definition edit where you have to give the object name.
- 4) The label name has Passport and Plural label has Passports.
- 5) In enter record name label and format enter name record name has passport number
- 6) And the data type has text.
- 7) In deployment status select deployed option.
- 8) Ensure that you have to select at least one option in the object creation option; it is available only once when a custom object is created.
- 9) Then click on next you will navigate to the new custom object tab where you have to

select tab style and click on next.

10) After tab selection you will be navigated to add to profiles select default on click on next.

11) Thereafter you have to select a custom app select include tab so that object will be

available in all objects and select save option.

Activity -2:

Fields available on custom object: Passport

Field Name	Data Type
1) Contact Number	Number
2) Full Name	Text
3) Passport Number	Text
4) Permanent Address	Text

Creation of fields on custom Object: Passport

- 1) Select your object from object selection has passport.
- 2) And select the option fields and relationships.
- 3) At the top right side you can find a new select that option.
- 4) Now you have to select data type, select number has data type.

5) And you will navigate to enter the details page where you give the field label.

6) And give the label name has Contact number.

7) And length should be 10 at the bottom of the object you can find options like required,unique,external id select required option so that always require a value in this field in order to save.

8) Click next you will navigate to field level security click on visible checkbox so that it is visible to all profiles.

9) Select the next option, select the page layout and save it.

The screenshot shows the Salesforce Object Manager Fields & Relationships page for the 'Passport' object. The left sidebar lists various setup items: Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The main content area displays a table of fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD
Contact Number	Contact_Number_c	Number(18, 0)	
Created By	CreatedById	Lookup(User)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	
Passport Name	Name	Text(80)	

At the bottom right of the page, there are buttons for 'Activate' and 'Go to Sett...'. The status bar at the bottom of the browser window shows 'Activate Go to Sett...'.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD
Contact Number	Contact_Number__c	Number(18, 0)	
Created By	CreatedById	Lookup(User)	
Full Name	Full_Name__c	Text(18)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	
Passport Name	Name	Text(80)	

Milestone-3: 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

There are two type 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.

3) Many to many relationship: Records of a particular object can connect with various records of different objects and vice versa.

Activity-1:

Creation of Relationship:

To create a Master Details relation between Passport and Visa.

- 1) Go to the Set Up option from the Home Page and click on it.
- 2) Go to the object manager and select ‘visa’ object from the list
- 3) And select fields and relationships and click on new.
- 4) Select the data type has Master detail relationship
- 5) And select related to the object has passport, and click on next
- 6) You will navigate to the label name page where you give the label name for the field, give it has passport number and click next.
- 7) Select visible for all profiles in field level security and select page layout in next page and save it.

Salesforce Setup - Visa Slot

Visa Slot | Salesforce

mvmuthaihgovernmentsgirlsco-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager... 00:08 10-04-2023

Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER
Visa Slot

Details

Description

API Name: Visa_Slot_c

Custom: ✓

Singular Label: Visa Slot

Plural Label: Visa Slots

Enable Reports: ✓

Track Activities: ✓

Track Field History: ✓

Deployment Status: Deployed

Help Settings: Standard salesforce.com Help Window

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Edit Delete

Type here to search

R ENG 00:08 10-04-2023

Salesforce Setup - Passport

Passport | Salesforce

mvmuthiaharts-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01I2w000003ELUO/FieldsAndRelationships/view 00:08 10-04-2023

Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER
Passport

Details

Fields & Relationships

6 Items, Sorted by Field Label

FIELD LABEL FIELD NAME DATA TYPE CONTROLLING FIELD

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD
Contact Number	Contact_Number_c	Number(18, 0)	
Created By	CreatedBy	Lookup(User)	
Full Name	Full_Name_c	Text(18)	
Last Modified By	LastModifiedBy	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	
Passport Name	Name	Text(80)	

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Activate Go to Sett

Type here to search

Milestone-4 App:

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 App
- 2) Custom Apps

Activity:

Creation of App

An app is a collection of items that work together to serve a particular function. Salesforce apps

come in two flavors: Classic and Lightning.

- 1) Navigate to setup and search for app manager
- 2) And select an option for a new lightning app.
- 3) Give the app name has book my visa.
- 4) Upload the picture and click next.
- 5) Choose the app option as navigation style- standard navigation, support from factors-desktop & mobile and select next.
- 6) And move the objects from available items to selected items.

7) Passport, visa slots, payments,reschedule/cancel to selected items.

8) And system admin profile to available items to selected items.

Milestone-5 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.

Activity-1:

Creation of User

1)Navigate to setup in quick find search bar

2) Type user in and select it and click on new user.

3) Give the first name and last name.

4) Enter your email in the email field.

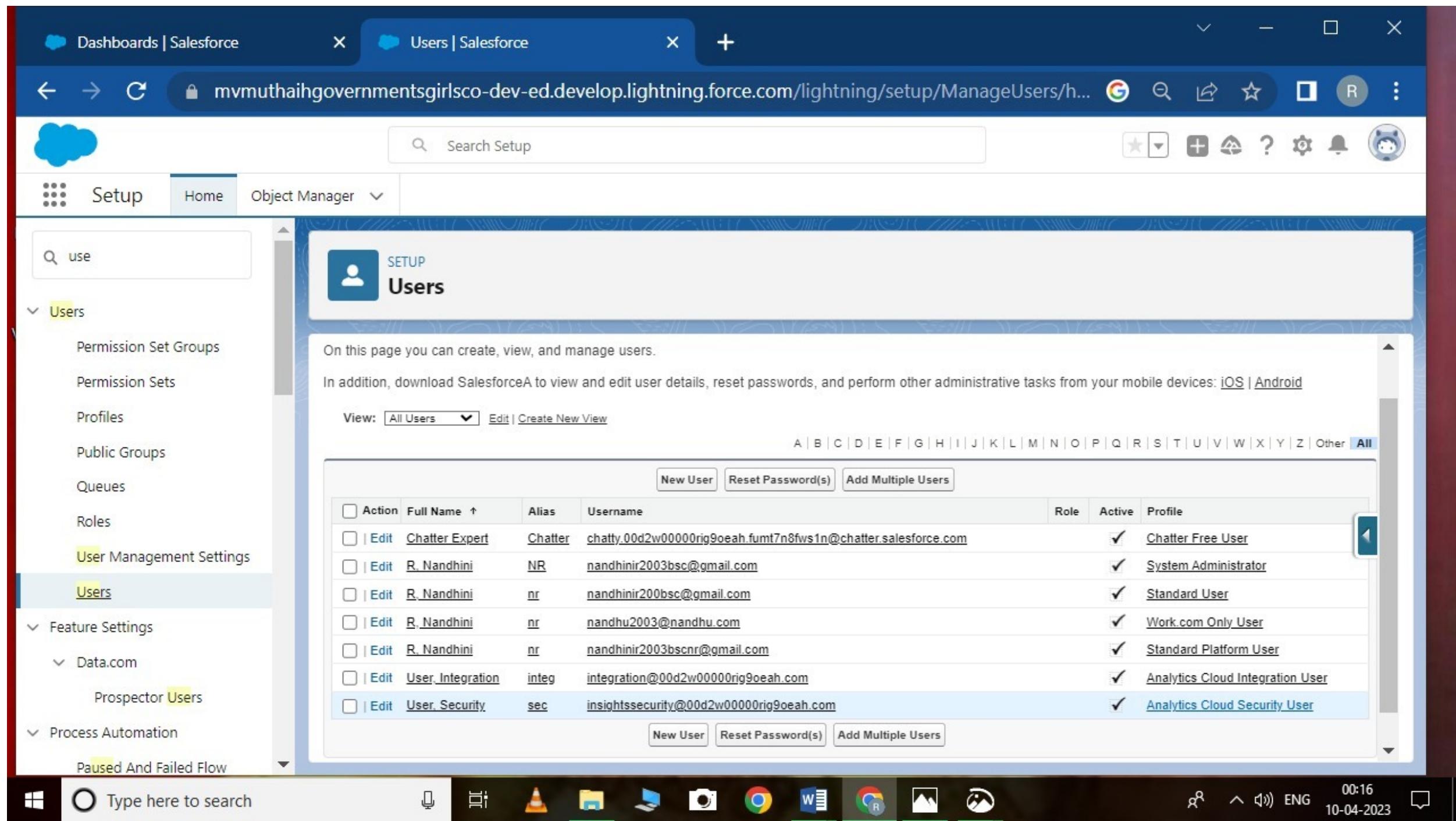
5) Enter username; it must be unique.

6) Select the user license of salesforce.

7) In the profile field select standard user.

8) At the bottom of the page check the box to generate a new password and notify the user

immediately.



Activity-2:

OWD:organization wide default settings,

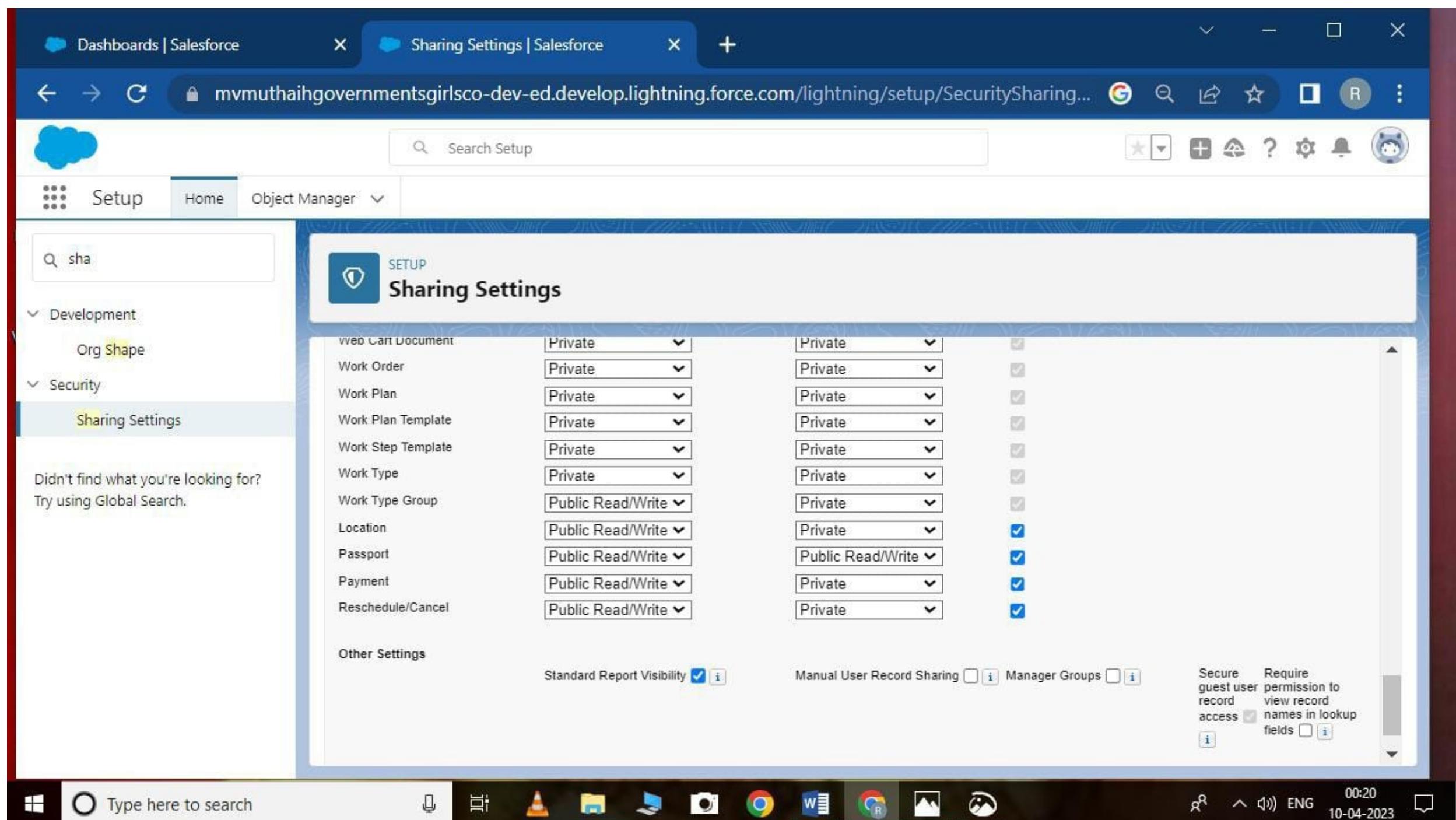
This can be used to give permissions to the organization wide and it can be used for restrict the

access, we can control the record level access .

- 1) Navigate to setup in quick find search bar
- 2) Type sharing settings and you will navigate to the sharing settings page.
- 3) Go down to the page and select owd.
- 4) And click edit on the owd.

5) Navigate to the bottom of the page and select the passport object.

6) And change the default external access to public/Read/write.



Milestone-6 Reports:

A report is a list of records that meet the criteria you define. It's displayed in Salesforce in rows and

columns, and can be filtered, grouped, or displayed in a graphical chart. Every report is stored in a folder.

Folders can be public, hidden, or shared, and can be set to read-only or read/write.

Activity-1:

Creation of report

Note- While creation of report ensure that update preview automatically is selected which is available at

the right side of the report page.

- 1) Click on the app launcher and search for reports.
- 2) And select a new report, for the record type category select other reports.
- 3) Select passport with visa slots for the report type name.
- 4) Select the start button to create a new report.
- 5) At the left side of the report you can find an outline pane.
- 6) In the group rows select location.
- 7) In the group columns select passport:passport number to display.
- 8) And in columns select visa slot number.
- 9) Now navigate to the filter pane available next to the outline pane and ensure in the show me section all passports is selected.
- 10) And in the passport created date select all time.
- 11) And give the label name Passports with visa locations.
- 12) Click on save and run for saving the report.

New Passports with Visa slots Report

Total Records
3

	Passport: Passport Name	Visa slot: Visa slot Name	Passport: ID	Visa slot: ID
1	NAVEENA R	Naveena	a042w00000z417c	a012w00001BK8I2
2	NIRAN	Niran	a042w00000zN190	a012w00001BL34a
3	Nanthini P	Nanthini P	a042w00000zN0Ly	a012w00001BL34V

Milestone-7 Dashboards:

Dashboards in Salesforce are a graphical representation of Reports. It shows data from source reports

as visual components.

Activity

Creation of Dashboard

- 1) Click on the app launcher and search for dashboards.
- 2) Select the new dashboard option.

- 3) Name the dashboard has a Passport with visa locations.
- 4) And select create option.
- 5) Now click on Add component and for report select passport with locations.
- 6) Select the donut chart in display as section.
- 7) Ensure that value is record count and sliced by locations.
- 8) Leave the default values
- 9) Click on add.
- 10) And save the dashboard.

The screenshot shows the Salesforce Lightning Experience interface. At the top, there's a header bar with the title "Passport with visa location | Sales" and a search bar labeled "Search...". Below the header, a navigation bar includes links for "Book my visa", "Passports", "Visa slots", "Payments", "Reschedules/Cancels", "Reports", "Locations", and "Dashboards".

The main content area displays a dashboard titled "Passport with visa location". On the left, there's a table component with the heading "Passports With Visa Locations". The table contains the following data:

Passport: Passport ...	Visa slot: Visa sl...	Passport: ID	Visa slot: ID
Nanthini P	Nanthini P	a042w00000z	a012w00001t
NAVEENA R	Naveena	a042w00000z	a012w00001t
NIRAN	Niran	a042w00000z	a012w00001t

Below the table is a link "View Report (Passports With Visa Locations)". To the right of the table is a large, mostly empty grid area with some placeholder boxes. At the bottom of the dashboard, there are buttons for "+ Component" and "+ Filter".

At the very bottom of the screen, there's a taskbar with icons for Windows, Start, Task View, File Explorer, VLC, and Google Chrome. The taskbar also includes a search bar labeled "Type here to search".

4.Trailhead Profile Public URL

Team Lead- <https://trailblazer.me/id/nandhini567>

Team member 1- <https://trailblazer.me/id/nantp>

Team member 2- <https://trailblazer.me/id/naveenar>

Team member 3- <https://trailblazer.me/id/keerthipa>

5. ADVANTAGE AND DISADVANTAGE

Advantages:

Improved customer experience: A CRM application that helps to book a visa slot can improve the customer experience by allowing customers to easily schedule appointments and receive updates on their visa applications.

Increased efficiency: By automating the booking process, a CRM application can save time and reduce errors. This can help to increase efficiency and reduce costs.

Better data management: A CRM application can help to manage data related to visa applications, appointments, and customer information. This can improve the accuracy and completeness of data, making it easier to track and manage.

Enhanced communication: By providing notifications and updates, a CRM application can enhance communication with customers and reduce the likelihood of missed appointments or misunderstandings.

Disadvantages:

Initial cost: Developing a CRM application can be costly and time-consuming. This can be a significant barrier to entry for small businesses.

Technical expertise required: Developing a CRM application requires technical expertise in software development and data management. This can be challenging for businesses without a dedicated IT team.

Integration challenges: Integrating a CRM application with existing systems and processes can be difficult. This can lead to compatibility issues and require additional technical expertise.

Security concerns: Collecting and storing customer data through a CRM application can raise security concerns. Businesses must ensure that appropriate security measures are in place to protect customer information.

6.APPLICATION

As an AI language model, I do not have the ability to create an application. However, I can provide you with some suggestions and considerations for developing a CRM application that helps to book a visa slot.

Determine the requirements: Start by analyzing the requirements of the CRM application. Make sure to consider the features that your customers would require, such as online appointment booking, reminders, and notifications.

Choose a development platform: Choose the platform that best suits your requirements. Consider the available resources, time, and cost for developing the application.

Design the user interface: Develop an intuitive and user-friendly interface that is easy to navigate. Ensure that your design incorporates all the required functionalities and features.

Incorporate a booking system: Incorporate an online booking system that allows customers to schedule appointments for visa slots. This can be done through a calendar or booking software, which can integrate with your CRM application.

Integrate a notification system: Incorporate a notification system that sends reminders and updates to customers about their visa slot bookings. This can be done through email or text messages.

Test and refine: Test the application thoroughly to ensure that it is bug-free and meets all the requirements. Make necessary adjustments and refinements before releasing it to the public.

Launch and maintain: Launch the application and promote it through various channels. Provide regular maintenance and support to ensure that the application remains up-to-date and meets the changing needs of your customers.

7.CONCLUSION

In conclusion, a CRM application that helps users to book a visa slot can be a useful tool for both individuals and businesses. This type of application can streamline the visa application process, making it easier and more efficient for users to schedule appointments and submit their application materials.

With features such as automated scheduling, reminder notifications, and document management tools, a CRM application for visa bookings can help users to stay organized and on top of their application process. Additionally, businesses that handle visa applications can benefit from such an application by reducing manual work and improving customer satisfaction.

Overall, a CRM application that helps to book visa slots can provide a range of benefits for both individuals and businesses involved in the visa application process, and can be a valuable tool for improving efficiency and customer experience.

8.FUTURE SCOPE

There are several future scope areas for a CRM application that helps to book a visa slot:

Integration with AI-based chatbots: Integration with AI-based chatbots can enable the CRM application to provide personalized assistance to users and automate the visa booking process. Chatbots can answer frequently asked questions, guide users through the visa application process, and provide real-time updates on visa status.

Enhanced security features: As the visa application process involves sensitive personal information, it is essential to ensure the security of the CRM application. Future enhancements could include two-factor authentication, biometric authentication, and other security features to prevent unauthorized access and data breaches.

Mobile application development: As more people prefer to use their smartphones for booking appointments, developing a mobile application for the CRM system could increase accessibility and convenience for users.

Multi-language support: Providing support for multiple languages can improve the user experience for non-native speakers and help expand the application's reach to a wider audience.

Analytics and reporting: Incorporating analytics and reporting capabilities into the CRM application can provide insights into user behavior and help identify areas for improvement in the visa booking process. This data can also be used to optimize the system's performance and enhance the user experience.

Integration with third-party services: Integrating with third-party services such as travel agencies, insurance providers, and transportation services can offer additional value to users and expand the application's offerings

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