WORKFORCE ADMINISTRATION SOLUTION

NAAN MUDHALVAN

PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

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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.

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LIST OF FIGURES

LIST OF ABBREVIATION

CRM	Customer Relationship Management
ESP	Email Service Provider
UI	User Interface
UX	User Experience
OWD	Org - Wide Default
CTA	Call To Action
CSV	Comma - Separated Values
SLA	Service Level Agreement
API	Application Programming Interface
SaaS	Software as a Service
PaaS	Platform as a Service

CHAPTER-1

PROJECT SPECIFICATION

1.1 Project Goal

The overarching goal of the Workforce Administration Solution Salesforce project is to revolutionize our HR and workforce management processes. By harnessing the power of Salesforce, we aim to create an efficient, automated, and user-friendly platform that optimizes everything from employee onboarding to performance evaluation. The project's core objectives include integrating Salesforce seamlessly with our existing systems, delivering real-time data visibility, and empowering employees with self-service options.

We also prioritize compliance, data security, and scalability to ensure a system that not only meets current needs but can adapt to future growth and changes. Through effective training, change management, and continuous support, we intend to drive high user adoption while measuring success through quantifiable KPIs and a robust ROI analysis, ultimately improving efficiency, data accuracy, and cost-effectiveness across our workforce management.

By achieving these objectives, the project will not only enhance the efficiency of our HR operations but also elevate the overall employee experience. This Workforce Administration Solution on Salesforce will be a vital tool in ensuring our organization remains compliant with labor laws and data regulations, while also promoting agility in responding to evolving workforce requirements. Ultimately, it will empower us to make informed decisions and drive better outcomes across our workforce, ensuring a more productive, agile, and cost-effective organization.

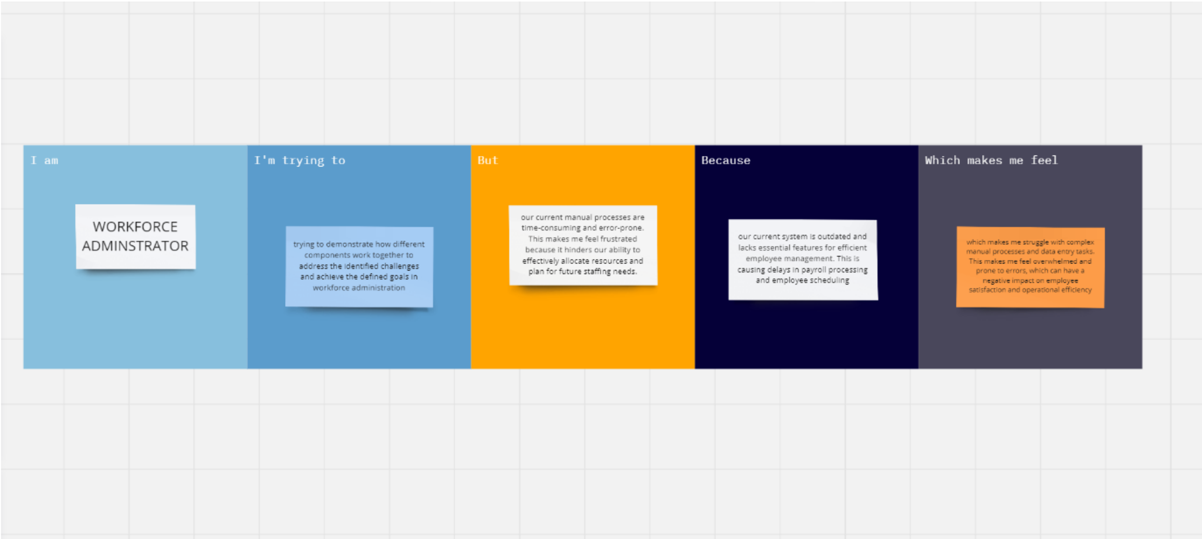
1.2 Project Scope

Workforce Administration Solution Salesforce project encompasses a comprehensive set of features and functionalities to transform our HR and workforce management processes. This project's scope includes the implementation of Salesforce as the central platform for managing employee data and workflows. It involves automating key HR tasks such as employee onboarding, leave management, time tracking, and performance evaluations. Salesforce will be integrated with existing systems like HRIS and payroll to ensure data consistency and accuracy.

The scope further entails the development of user-friendly dashboards and reports for real-time data visibility, enabling HR and management to make informed decisions. Additionally, a self-service portal will be created for employees to access and manage their own HR-related tasks, reducing the administrative workload on HR staff. Compliance with labor laws and data privacy regulations will be embedded in the system's design, ensuring that all workforce management processes adhere to legal requirements.

Scalability is a crucial aspect of the project scope to accommodate future growth and changes in workforce needs. The project will also encompass a comprehensive training plan for HR staff and employees to effectively use the system, promoting user adoption and a smooth transition. Ongoing support and maintenance, as well as feedback mechanisms for system improvements, will be part of the project scope to ensure long-term success and continuous improvement. By defining the project scope in this manner, we ensure a comprehensive and effective Workforce Administration Solution on Salesforce that enhances efficiency, data security, compliance, and overall user satisfaction.

1.3 Problem Statement Definition

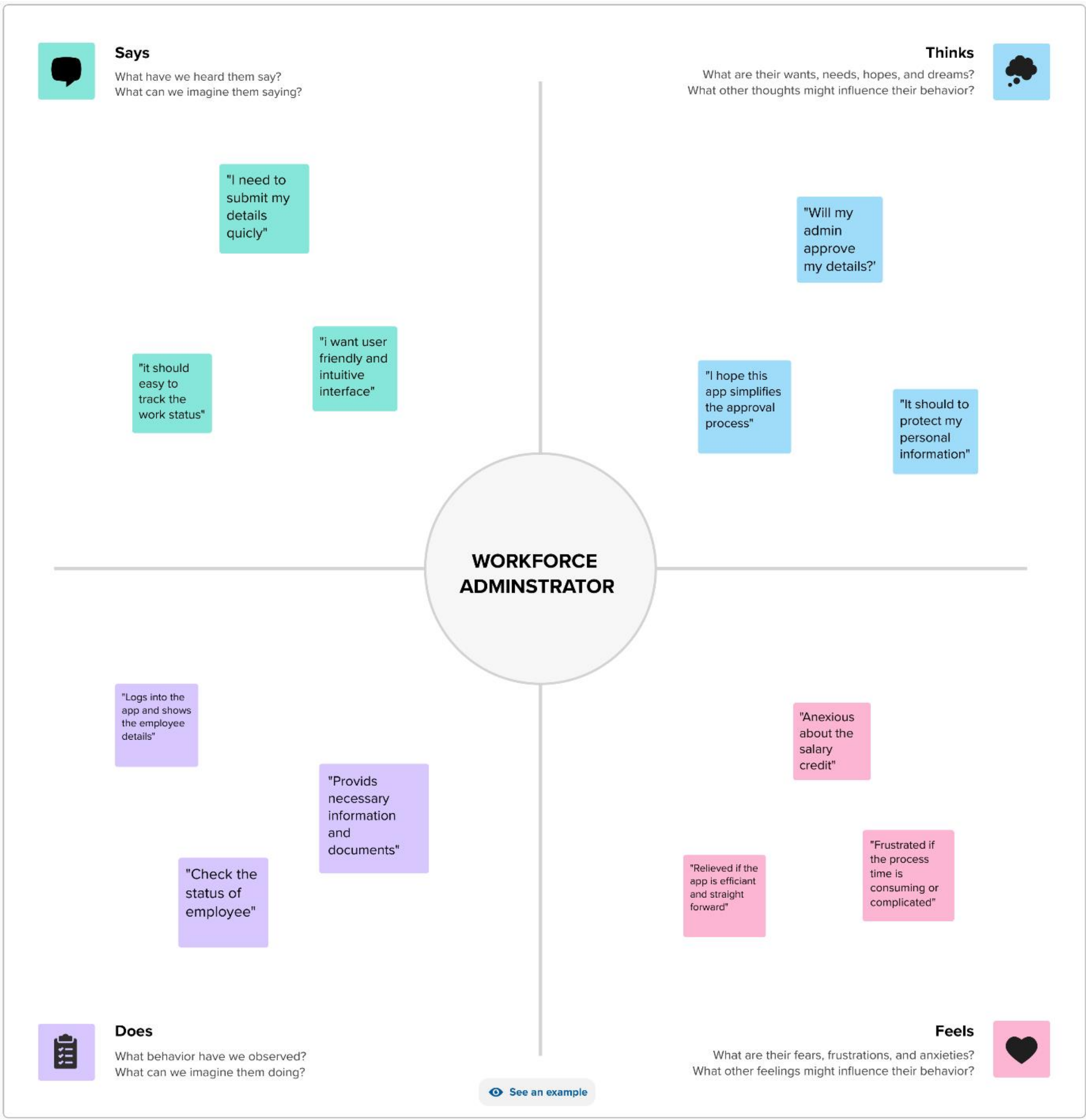


Problem Statement (PS)	**I am (Employee)**	**I’m trying to**	**But**	**Because**	**Which makes me feel**
PS	Workforce Adminstrator	I’am trying to demonstrate how different components work together to address the identified challenges and achieve the defined goals in workforce administration.	our current manual processes are time-consuming and error-prone. This makes me feel frustrated because it hinders our ability to effectively allocate resources and plan for future staffing needs.	our current system is outdated and lacks essential features for efficient employee management. This is causing delays in payroll processing and employee scheduling.	which makes me struggle with complex manual processes and data entry tasks. This makes me feel overwhelmed and prone to errors.

1.4 Empathy Map Canvas

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user’s behavior and attitudes.

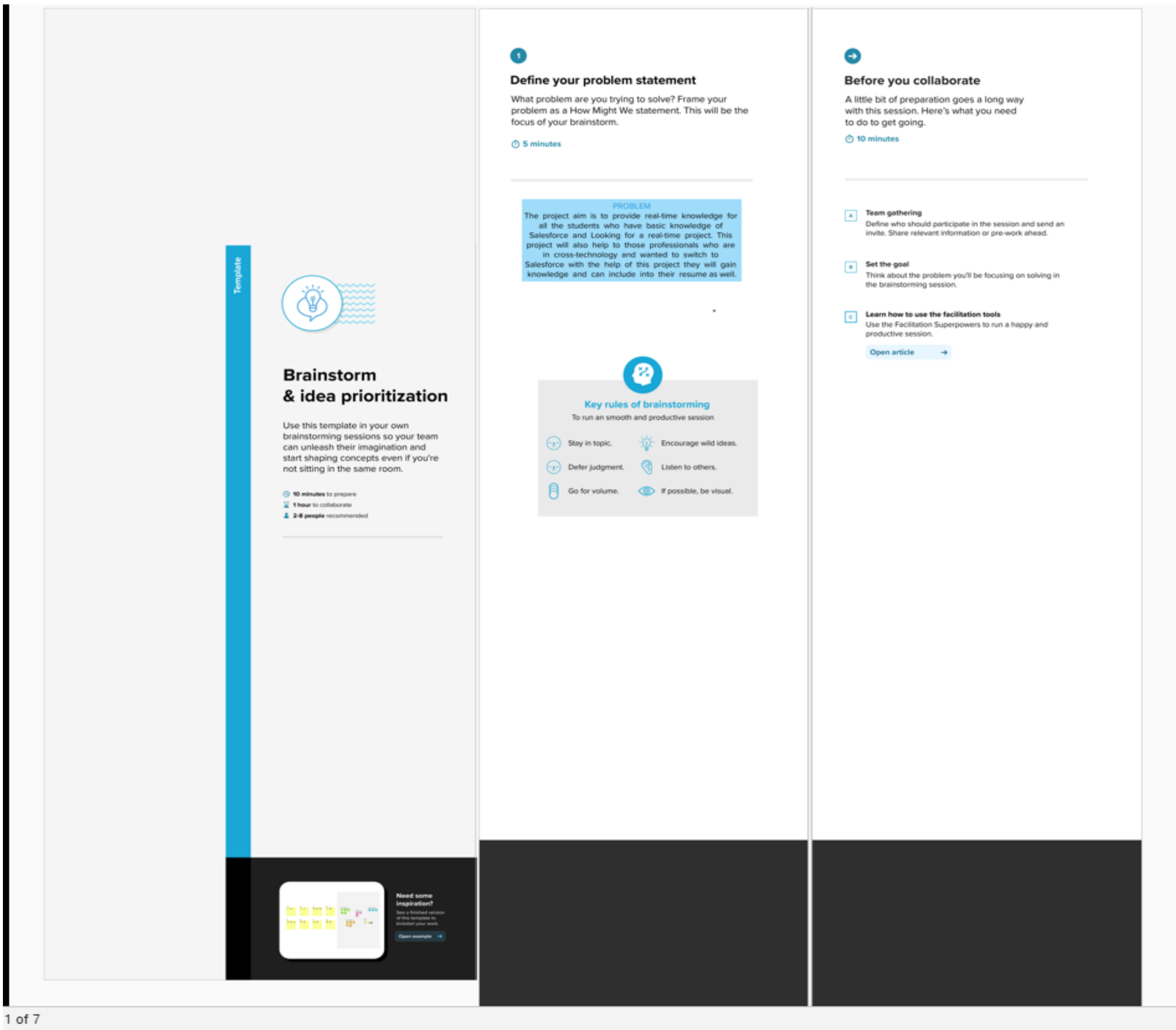
It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user’s perspective along with his or her goals and challenges.



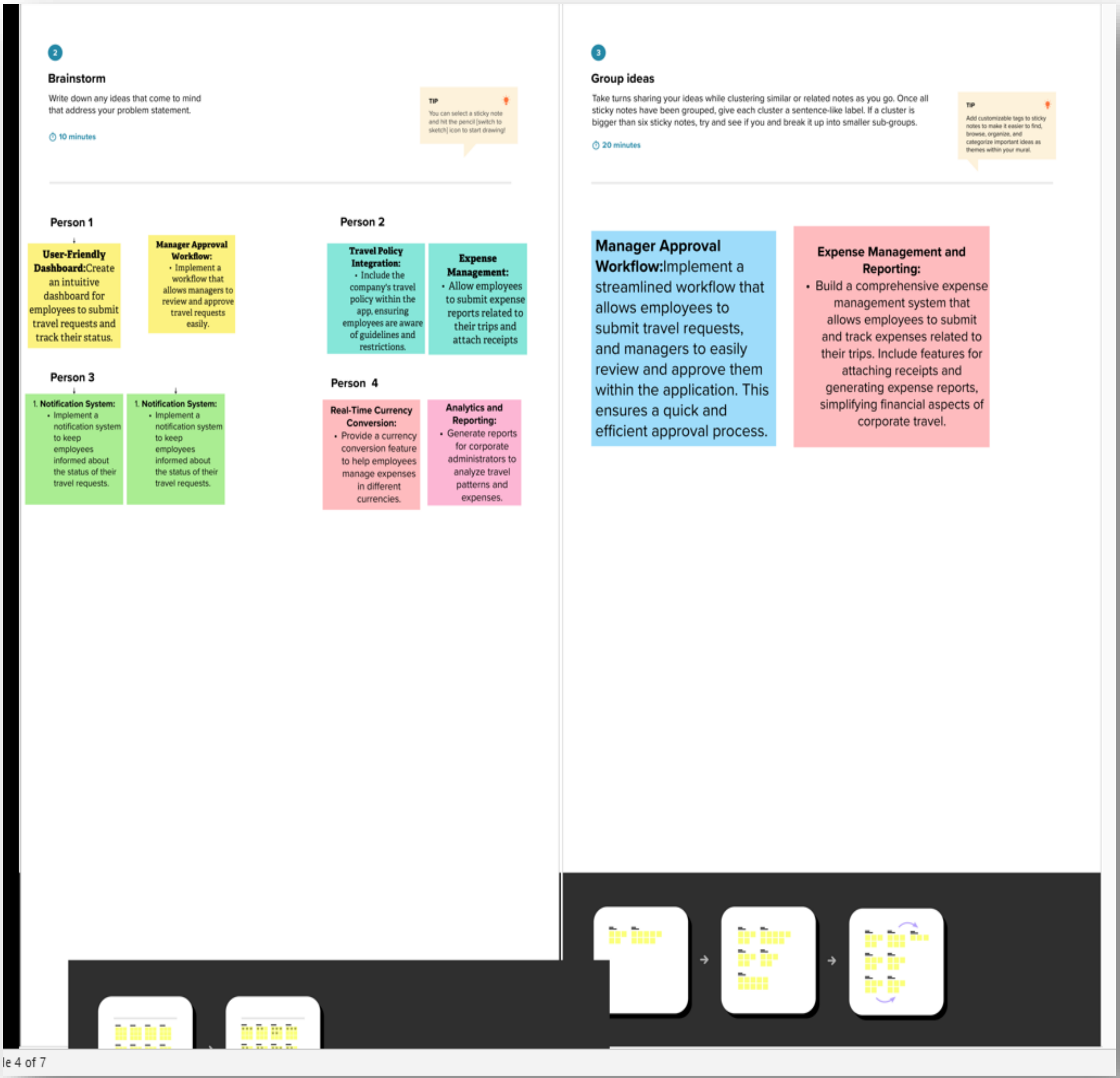
1.5 Ideation & Brainstorming

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

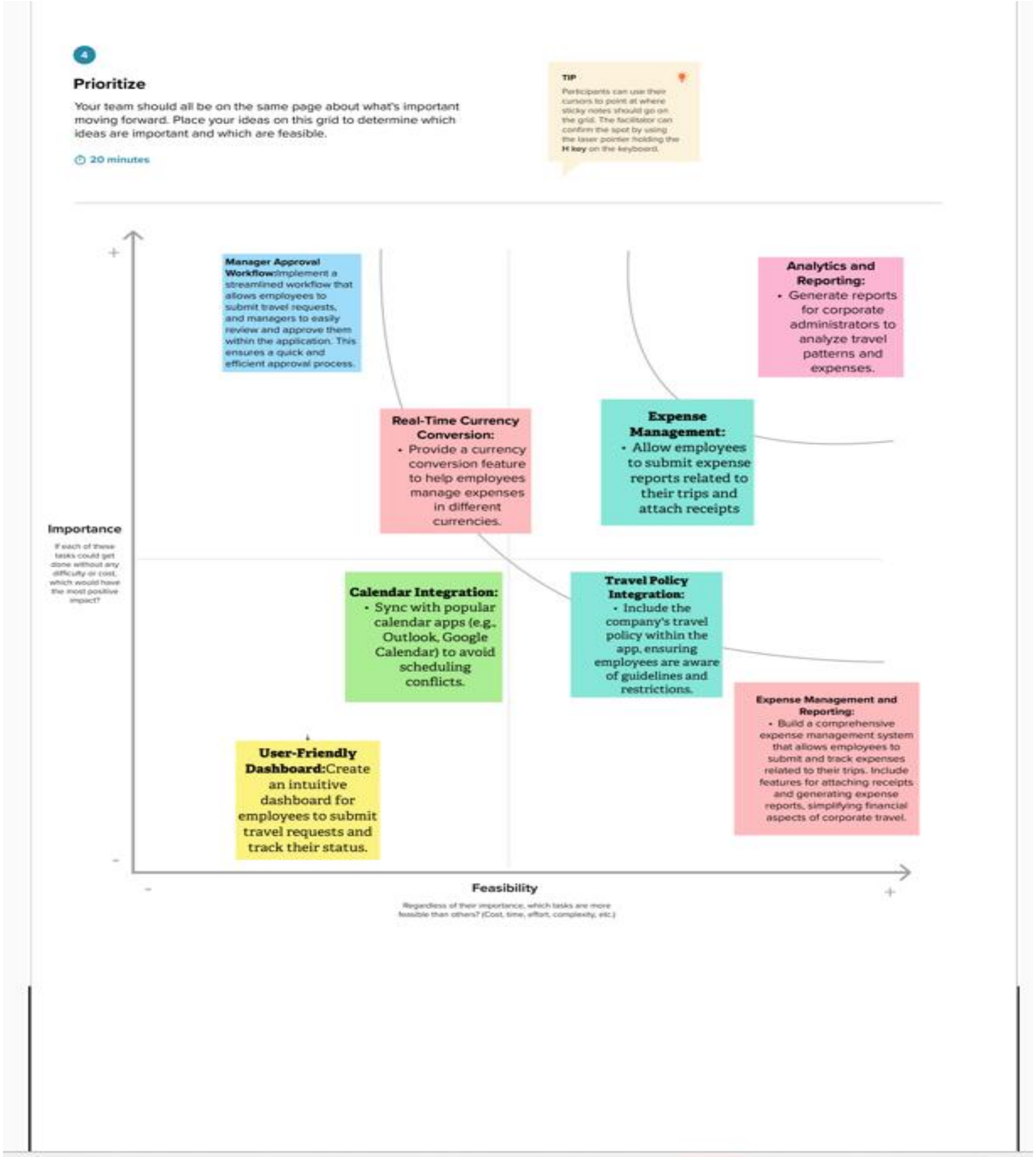
Step-1: Team Gathering, Collaboration and Select the Problem Statement:



Step-2: Brainstorm, Idea Listing and Grouping:



Step-3: Idea Prioritization:



1.6 Proposed Solution

S. No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Create a workflow administration solution that streamlines task allocation, progress tracking, and approval processes within organizations, enhancing efficiency and collaboration. This system should provide a user-friendly interface, customizable workflows, and robust reporting capabilities to optimize productivity and decision-making.
2.	Idea / Solution description	Integrate Salesforce with a custom HR module for comprehensive workforce management. Utilize Salesforce's CRM capabilities to streamline talent acquisition and employee records. Leverage Salesforce's reporting and automation tools for data-driven decision-making and efficient workforce administration.
	Novelty / Uniqueness	Incorporate blockchain technology to create a secure and immutable workforce data ledger within Salesforce, ensuring data integrity and privacy. Implement AI-powered predictive analytics for proactive workforce planning and talent optimization. Offer a dynamic, role-based interface that adapts to individual users, enhancing user experience and productivity.
4.	Social Impact / Customer Satisfaction	Empower organizations to prioritize diversity and inclusion initiatives by providing real-time diversity metrics and reporting within Salesforce. Enhance employee well-being through integrated wellness programs and resources. Continuously gather feedback from customers to fine-tune the solution for maximum user satisfaction and societal impact.

1.7 Functional & Technical Requirements

1.7.1 Functional Requirements

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Management	**User Registration:** Allow employees to register and log into the system. **User Roles:** Define roles (employees, managers, HR) with different permissions. **User Profiles:** Capture and manage employee profiles, including contact details.
FR-2	Workforce Scheduling	**Shift Creation:** Admins can create and manage shifts, including specifying times, locations, and positions. **Employee Availability:** Employees can input their availability, including time-off requests. **Automated Scheduling:** System should auto-generate schedules based on workload. **Schedule Publishing:** Ability to publish schedules for employees to access.
FR-3	Approval workflow	**Workflow Automation:** Implement an automated approval process with defined workflows. **Manager Assignment:** Automatically route requests to the appropriate manager based on criteria like department or project. **Notifications:** Send notifications to managers and employees at various stages of the approval process. **Delegation**: Allow managers to delegate their approval authority when they are unavailable.
FR-4	Approval Management	**Manager Dashboard**: Provide managers with a dashboard to view and manage pending employee information. **Request Review:** Allow HR Managers to review employee details, work, and time. **Approval/Rejection:** Enable HR Managers to approve or reject requests with comments. **Escalation:** Implement escalation processes for unattended requests or those exceeding certain thresholds.

FR-5	Time and Attendance	**Clock-In/Out:** Employees can record their working hours with timestamps. **Overtime Tracking:** System should calculate and track overtime hours. **Absense Management:** Manage and track leaves, sick days and other absences**.**
FR-6	Reporting and Analytics	**Reporting Tools:** Develop custom reports and dashboards to monitor travel request status and expenses. **Analytics:** Implement data analytics for insights into employee details, workloads, and time management. **Custom Reports:** Create and generate custom reports for workforce data analysis.

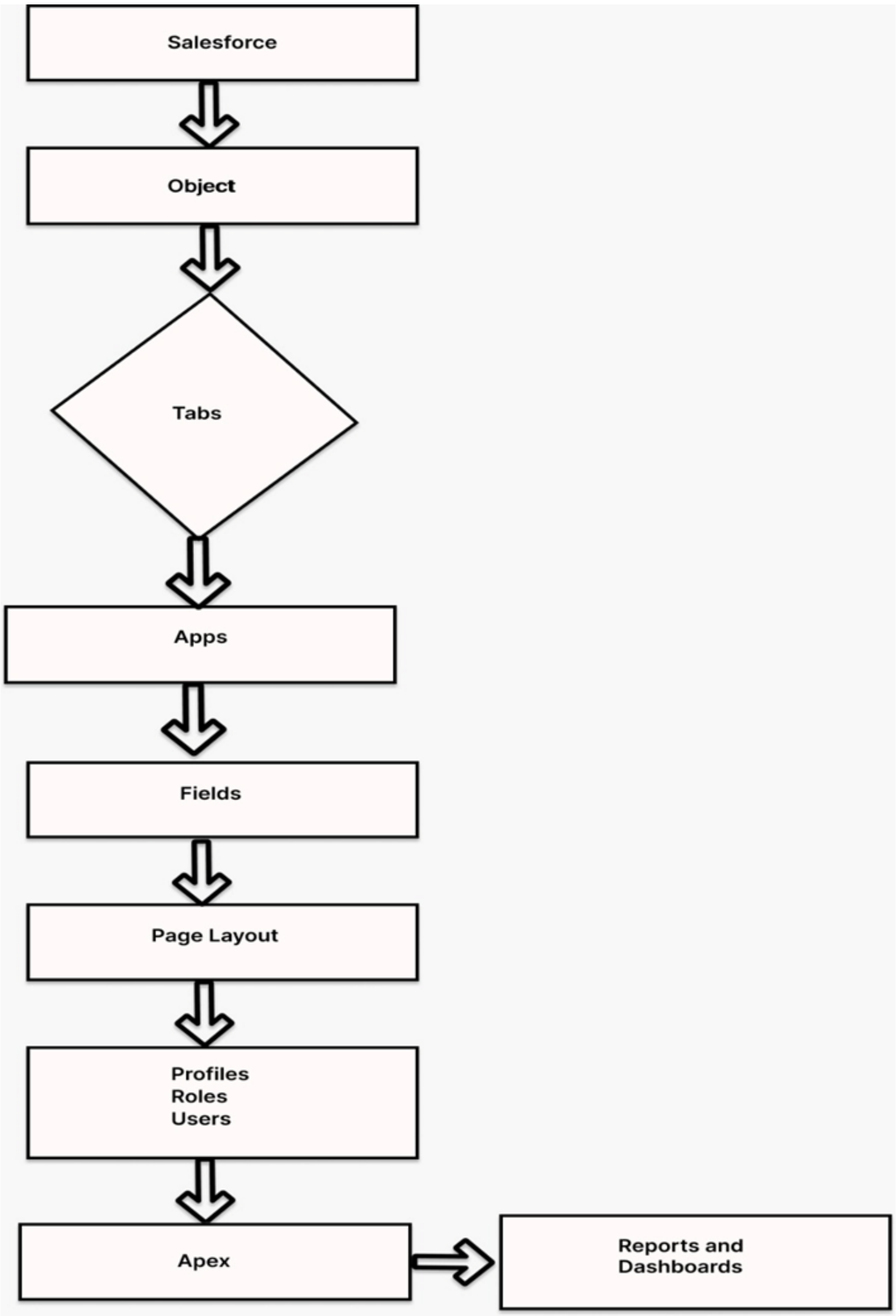
1.7.2 Technical Requirements

TR No.	Technical Requirement	Description
TR-1	Salesforce Environment	Utilize Salesforce's Enterprise or Unlimited edition to ensure scalability and access to advanced features.
TR-2	Development language	Develop using Salesforce's proprietary programming language, Apex, for server-side logic.
TR-3	Security	• Implement role-based access control (RBAC) to control who can access and modify data. • Encrypt sensitive data both in transit and at rest. • Utilize Salesforce Shield for enhanced security, including event monitoring and field-level encryption.
TR-4	Integration	• Use REST and SOAP APIs for integration with external systems, such as finance and expense management tools. • Implement Single Sign-On (SSO) solutions for seamless and secure access.
TR-5	Customization	Allow administrators to customize and configure the application, including approval workflows, fields, and user profiles.
TR-6	Mobile Accessibility	• Ensure that the application is accessible via the Salesforce mobile app for on-the-go request submission and tracking. • Develop a custom mobile app using Salesforce Mobile SDK for more tailored mobile functionality.

1.8 Project Road Map

1.8.1 Data Flow Diagram

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



1.8.2 Technical Archictecture

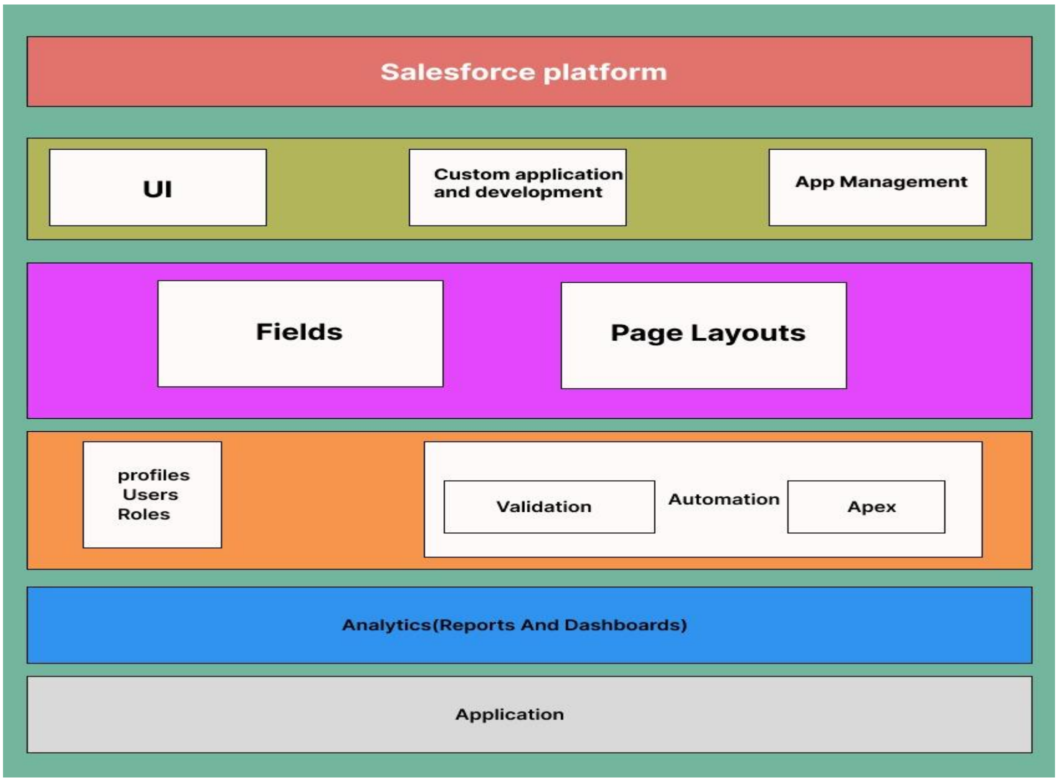


TABLE-1: Component and Technologies:

S.No	Component	Description	Technology
1.	User Interface	**Lightning Components**: Use Salesforce Lightning components to design the user interface for employees, managers, and administrators. **Custom Pages:** Create custom Visualforce pages for more tailored and complex UI elements	Salesforce
2.	Data Model	**Custom Objects:** Define custom objects in Salesforce to represent entities like travel requests, expenses, and approvals. **Master-Detail and Lookup Relationships:** Establish relationships between objects to maintain data integrity. Custom Fields: Create custom fields to capture specific information, such as	Salesforce

		travel dates, expenses, and approval status.	
3.	Workflow Automation	**Approval Processes:** Implement Salesforce Approval Processes to automate and streamline the travel request approval workflow. **Process Builder and Flows:** Use Process Builder and Flows to automate routine tasks and send notifications.	Salesforce
4.	Reporting and Analytics	**Custom Reports:** Create custom reports to track travel request status, expenses, and other relevant metrics.	Salesforce
5.	Security	**Role-Based Access Control (RBAC):** Configure RBAC to control who can access and modify data. **Data Encryption:** Encrypt sensitive data both in transit and at rest. **Audit Trails:** Maintain audit trails to log user activities for security and compliance purposes.	Salesforce
6.	Salesforce Development	**Apex:** Use Salesforce's proprietary programming language, Apex, for server-side logic and data manipulation. **Visualforce:** Develop custom user interfaces with Visualforce pages and components. **Lightning Web Components:** Create modern, component-based UIs using Lightning Web Components for a more responsive and dynamic user experience	Salesforce

Table-2: Application Characteristics:

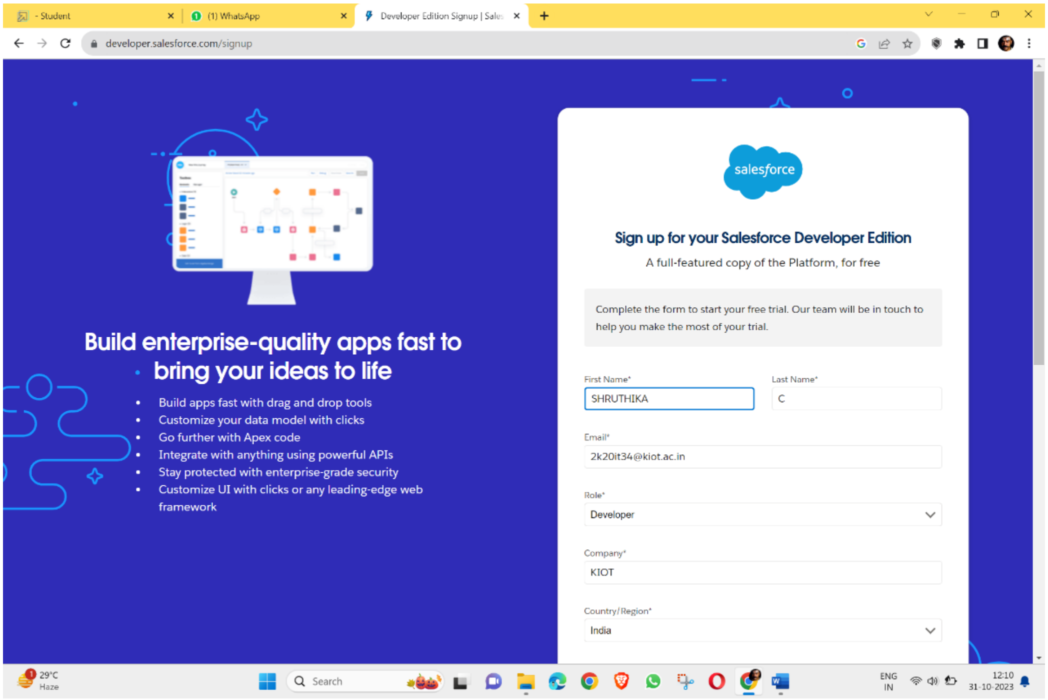
S. No	Characteristics	Description	Technology
1.	Responsive Design	Implement responsive design to adapt to various screen sizes, ensuring a consistent and visually pleasing user experience.	salesforce
2.	Accessibility	Ensure that the application is accessible via multiple devices and browsers, catering to users on desktops, tablets, and mobile devices. This accessibility is crucial for users who need to make or approve travel requests while on the go.	salesforce
3.	User-friendly	The application should have an intuitive and user-friendly interface to make it easy for employees, managers, and administrators to navigate and use the system without extensive training.	Salesforce
4.	Scalability	The application should be able to scale with the growing number of users and data, accommodating increasing demands without significant performance degradation.	salesforce
5.	Performance	Ensure the application's performance meets or exceeds user expectations, with rapid response times for actions such as submitting requests or generating reports.	salesforce
6.	Reporting and Analytics	Enable users to generate custom reports and access analytics tools to gain insights into travel patterns, expenses, and approval efficiency.	salesforce

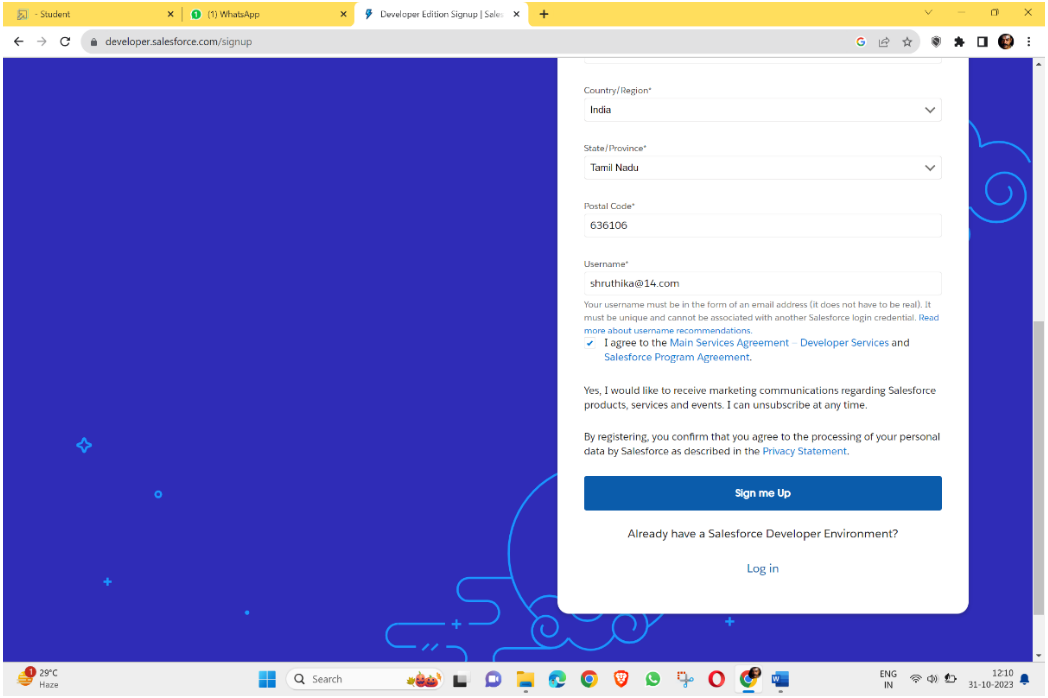
CHAPTER-2

PREPARATION DATA MODELING

2.1 Salesforce Developer Org

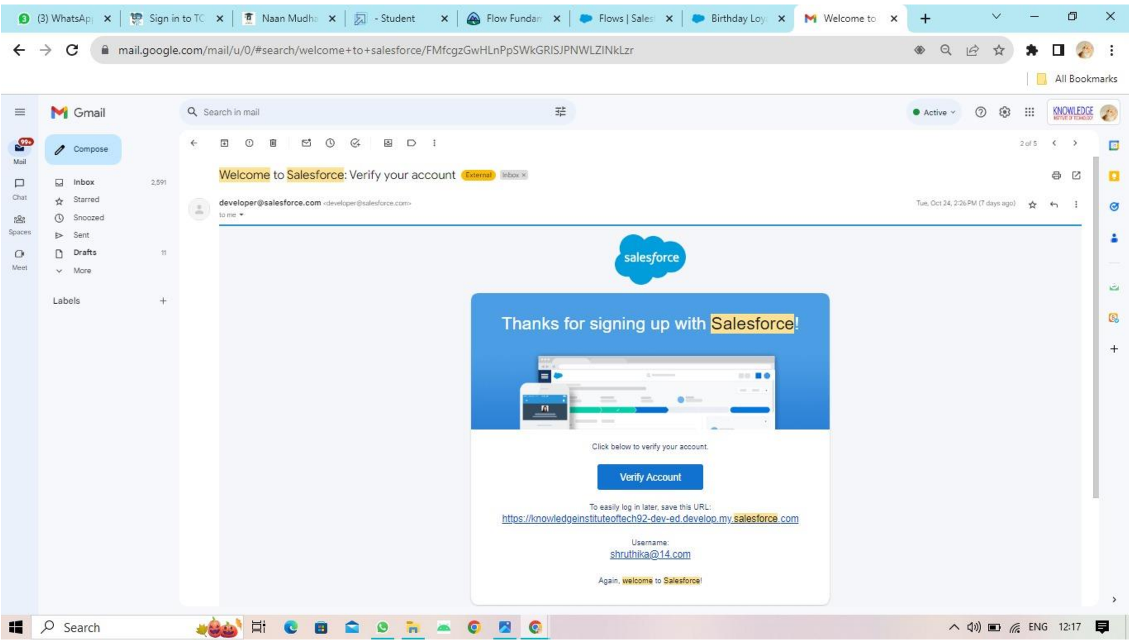
In Salesforce, a Developer Sign Up or Developer Edition is a special type of Salesforce environment that is primarily used for development, testing, and learning purposes.

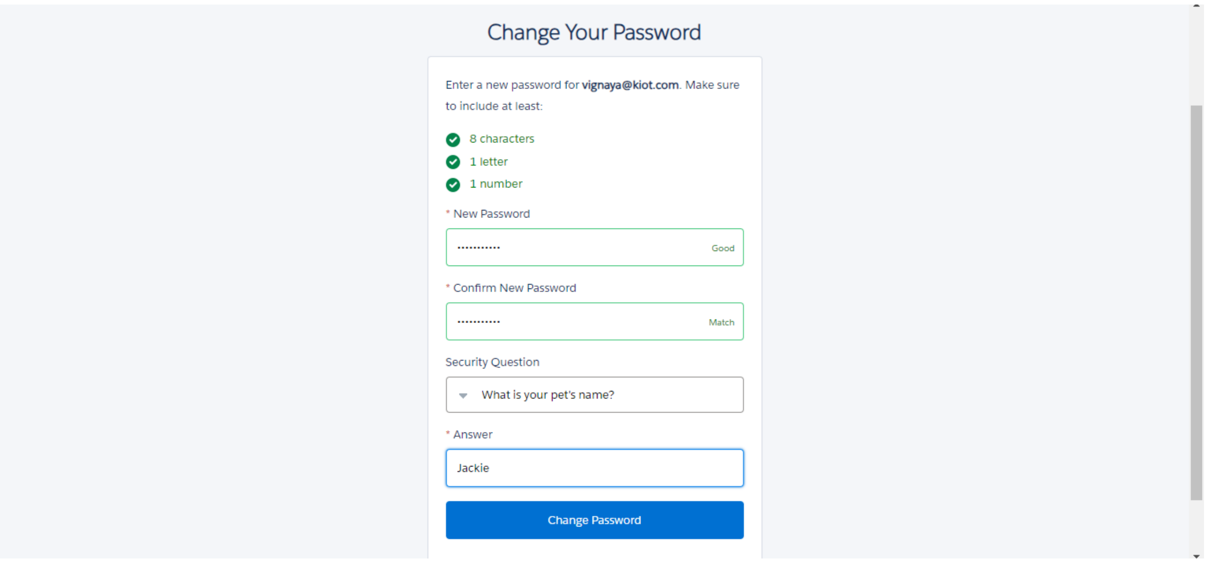




Account Activation

Activation tracks information about devices from which users have verified their identity.

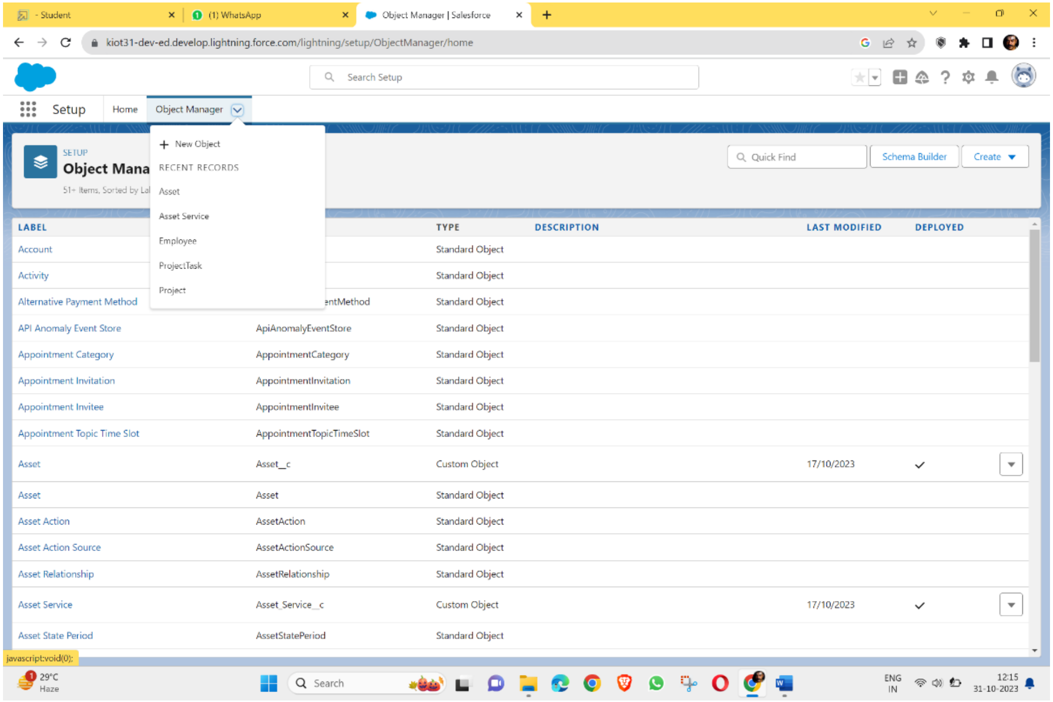




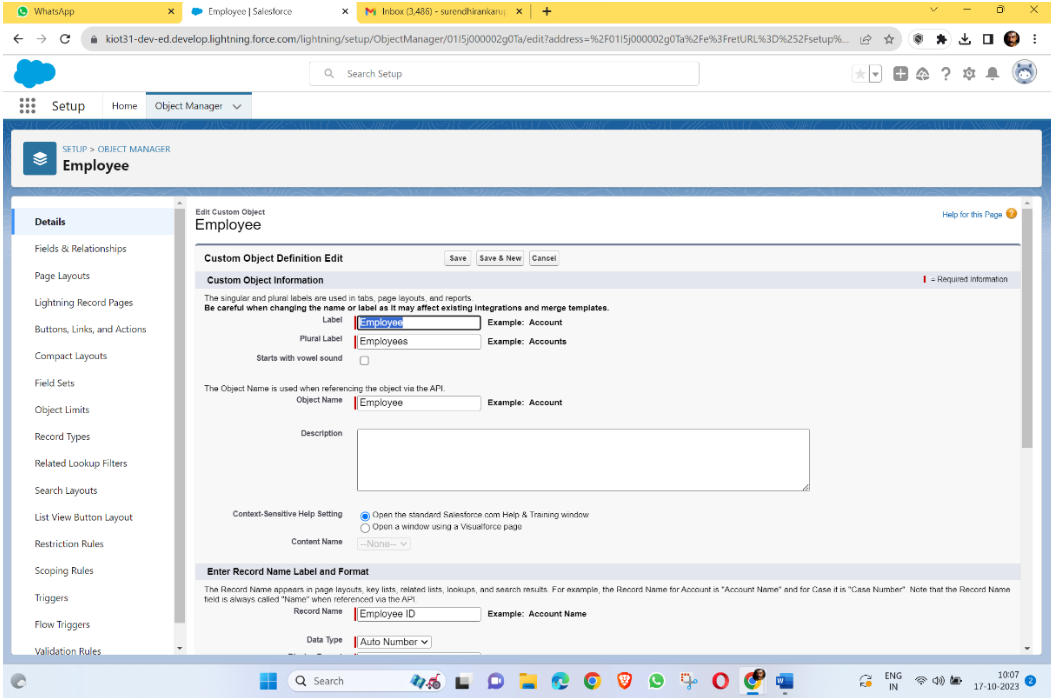
2.2 Custom Object Creation & Tabs

Custom Object Creation

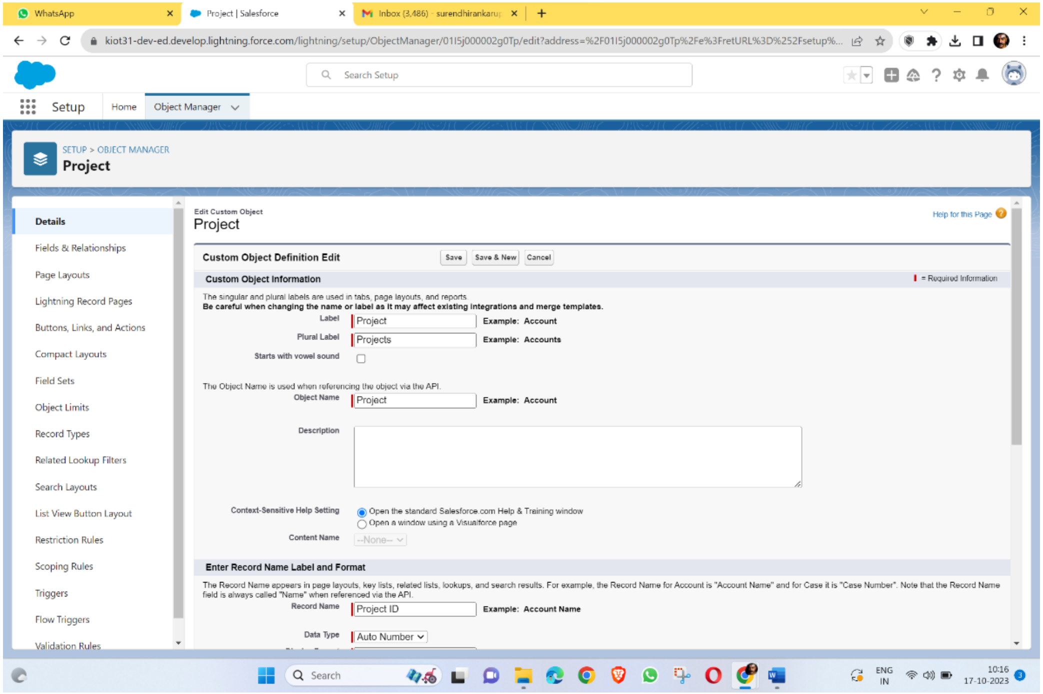
Objects are containers for your information, but they also give you special functionality. Custom objects are create to store information that’s specific to your company or industry.



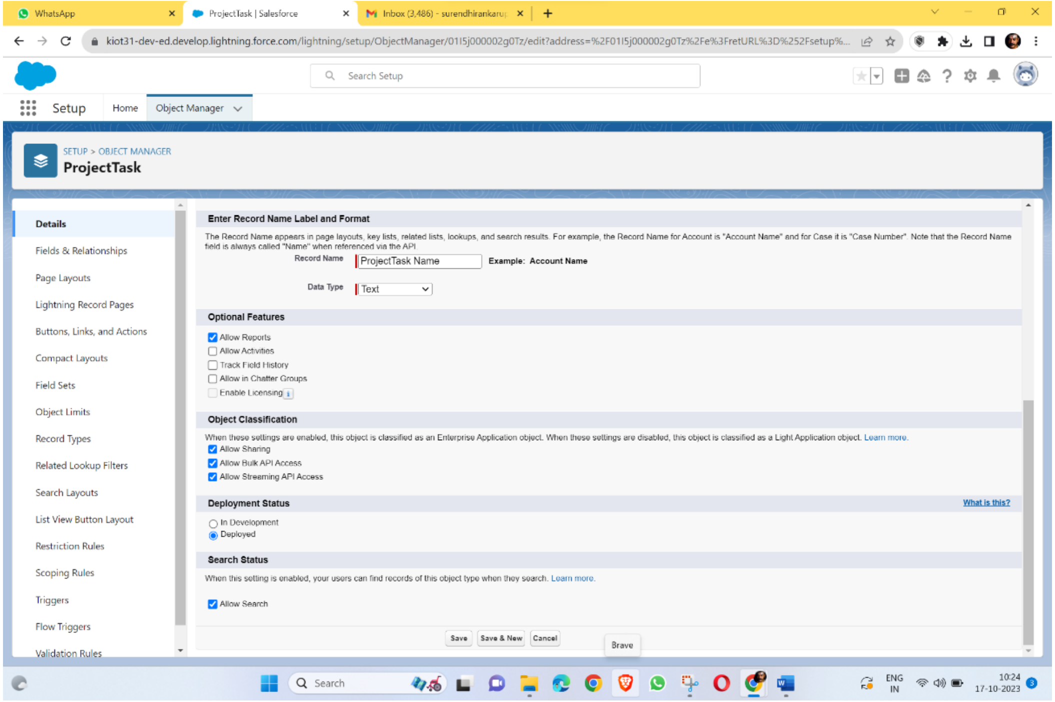
Creating Employee Object



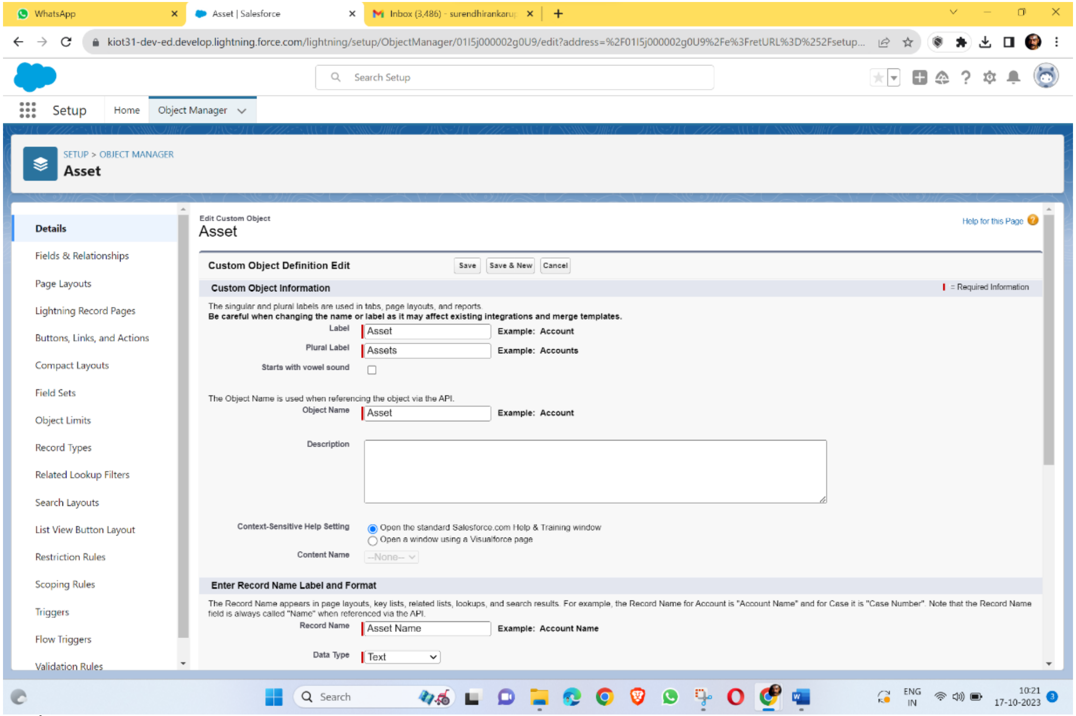
Creating Project Object



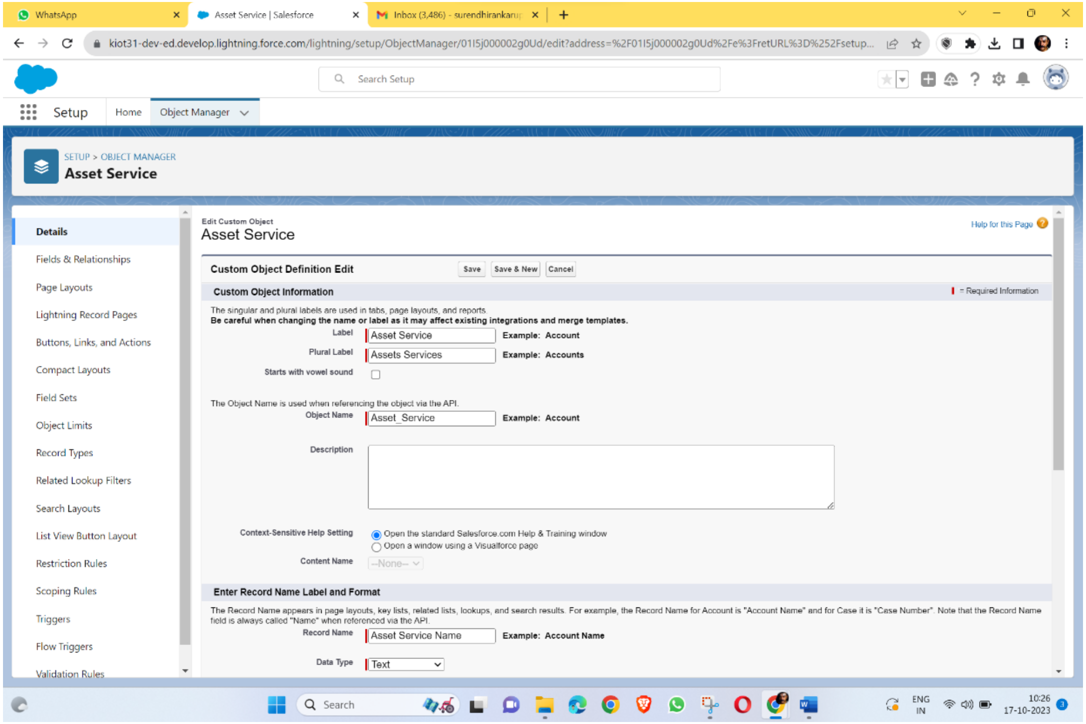
Creating Project Task Object



Creating Asset Object

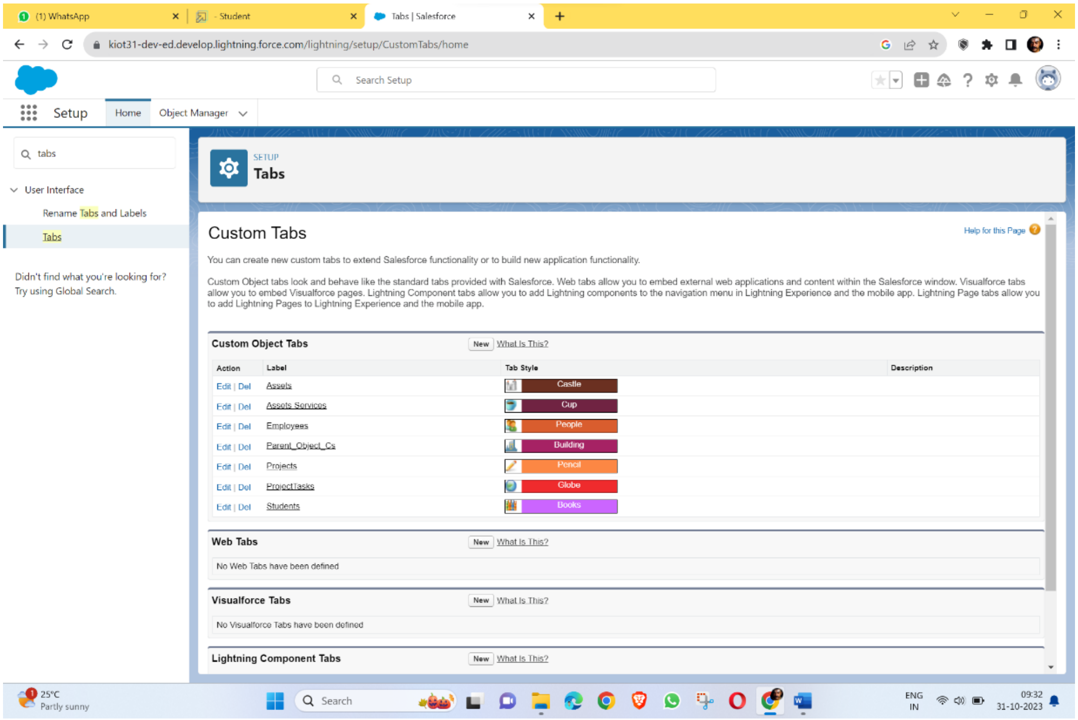


Creating the Asset Service Object



Tabs

Salesforce Tabs are like the menu options in a software application. They allow you to access specific functions, objects, or data.

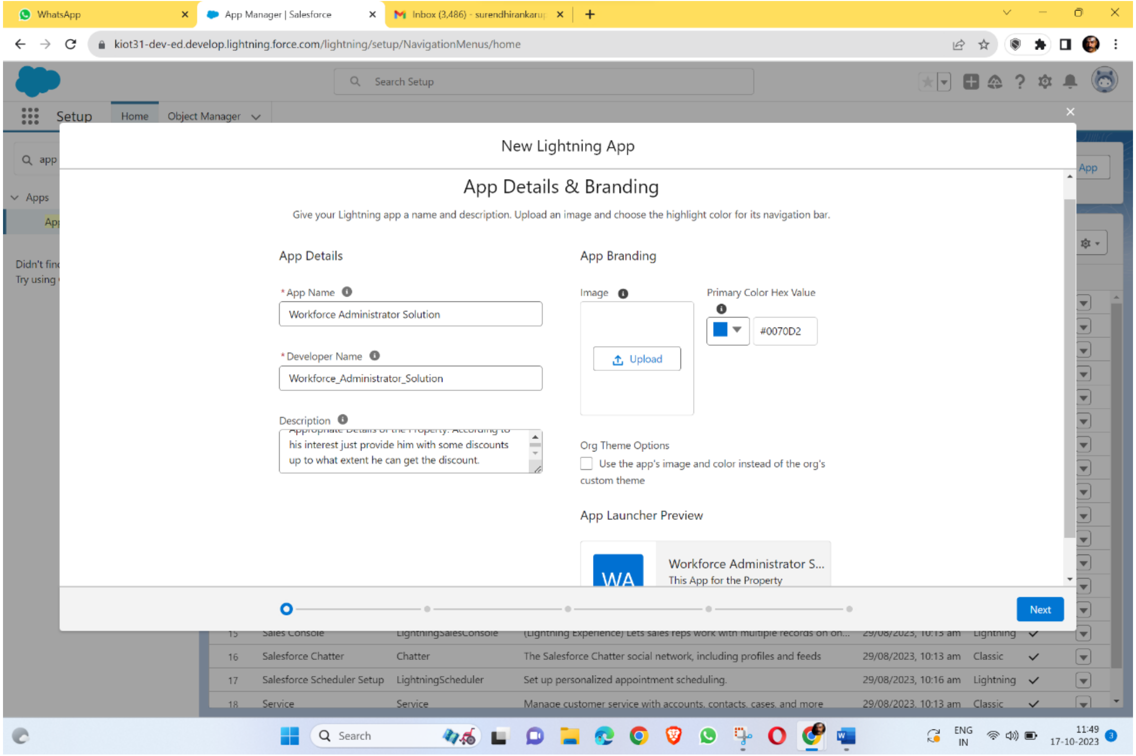


2.3 Lightning App

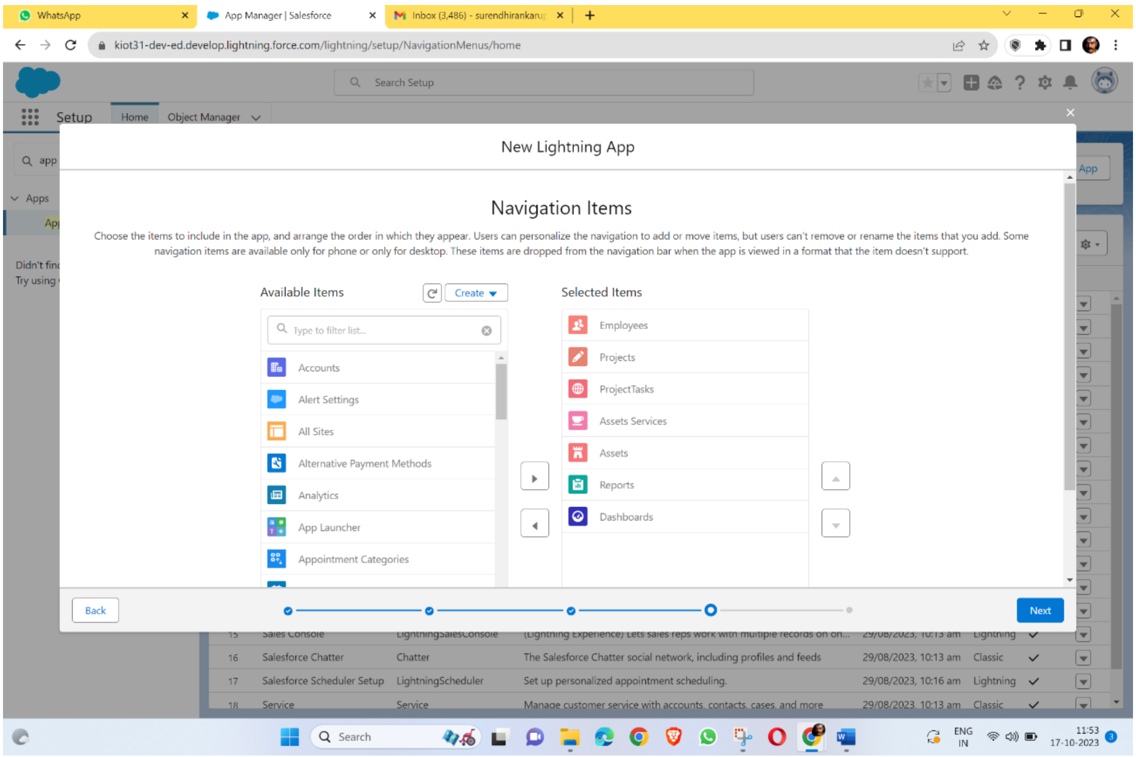
The Lightning App Builder is a point-and-click tool that makes it easy to create custom pages for the Salesforce mobile app and Lightning Experience, giving your users what they need all in one place.

Create a Workforce Administrator Solution Lightning App

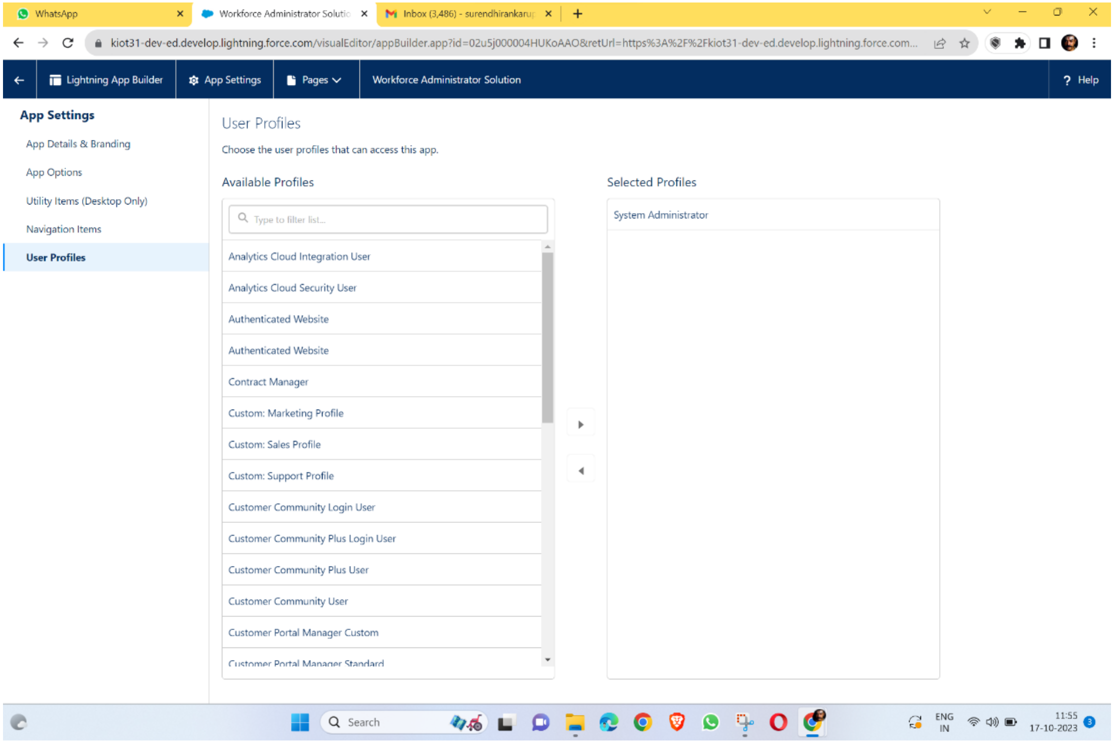
- Build a Lightning app, add tabs, and customize page layouts.
- Create custom objects and fields for the app.
- Add Navigation Items
- Add User Profiles



Add Navigation Items

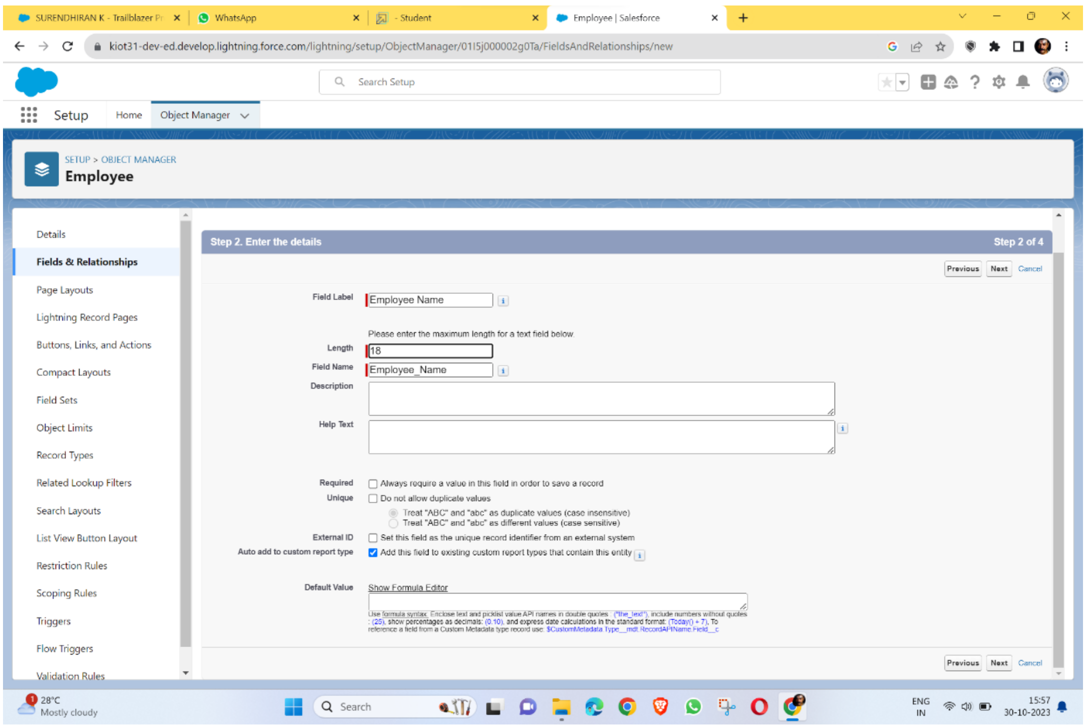


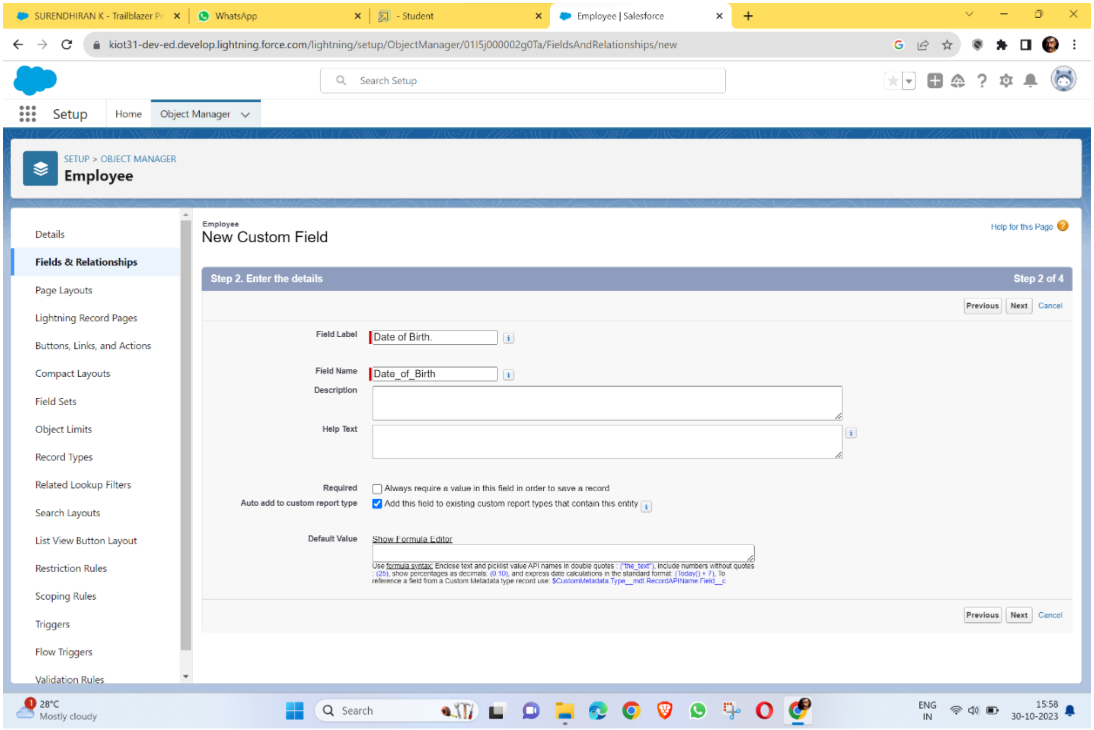
Add User Profiles

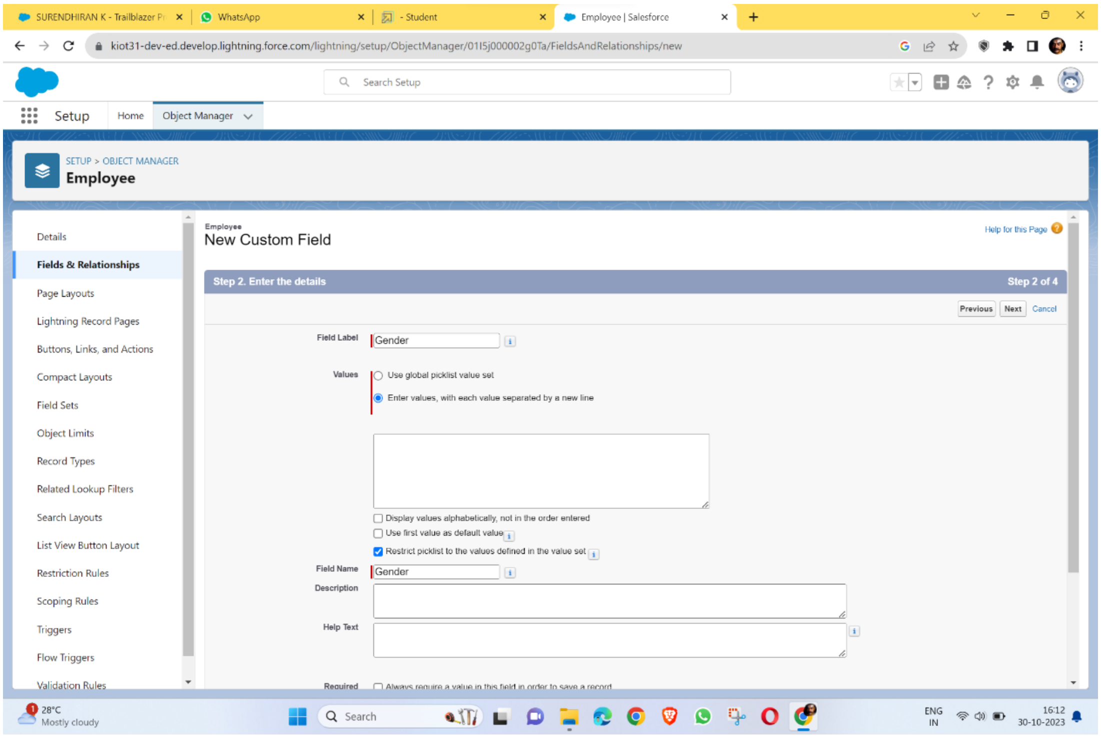


Creating Fields

Creating Fields for Text , Date of Birth, Formula, Self Relationship for Employee Object







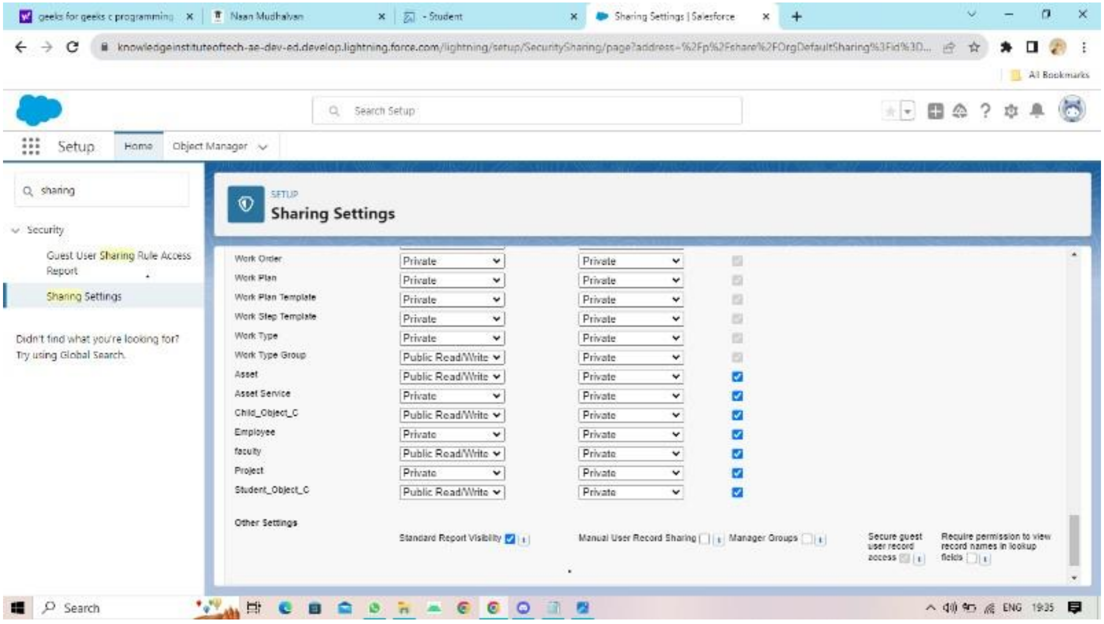
2.4 Setting OWD

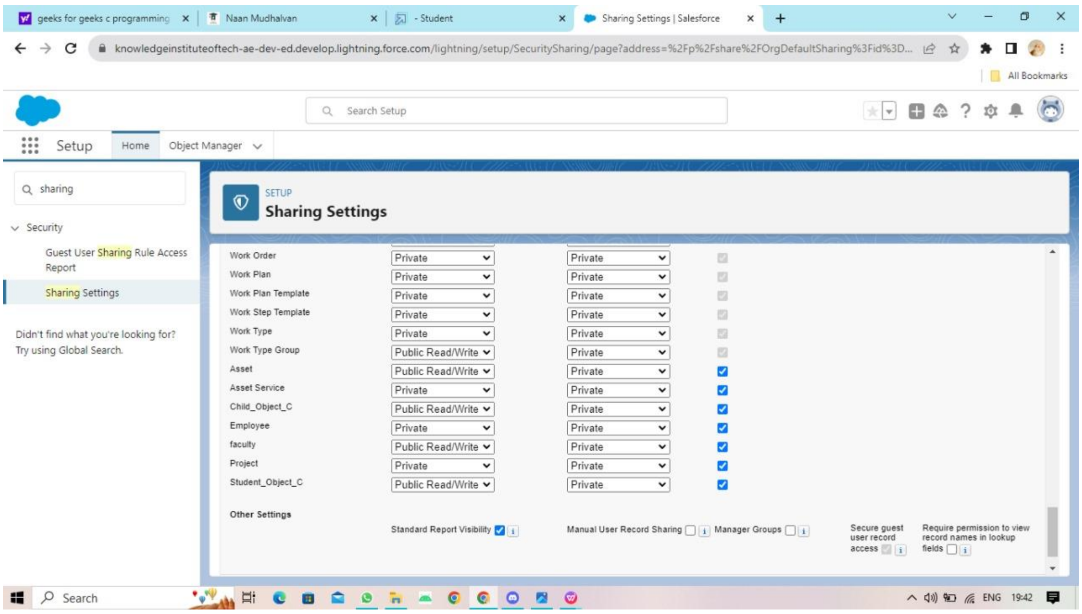
Organization-Wide Defaults, or OWDs, are the pattern security rules that you can follow for your Salesforce instance. Organization Wide Defaults are utilized to confine who can access what information in your CRM.

There are four levels of access that can be set in Salesforce OWD and they are-

- Public Read/Write/Transfer
- Public Read/Write
- Public Read/Only
- Private

Create OWD Setting

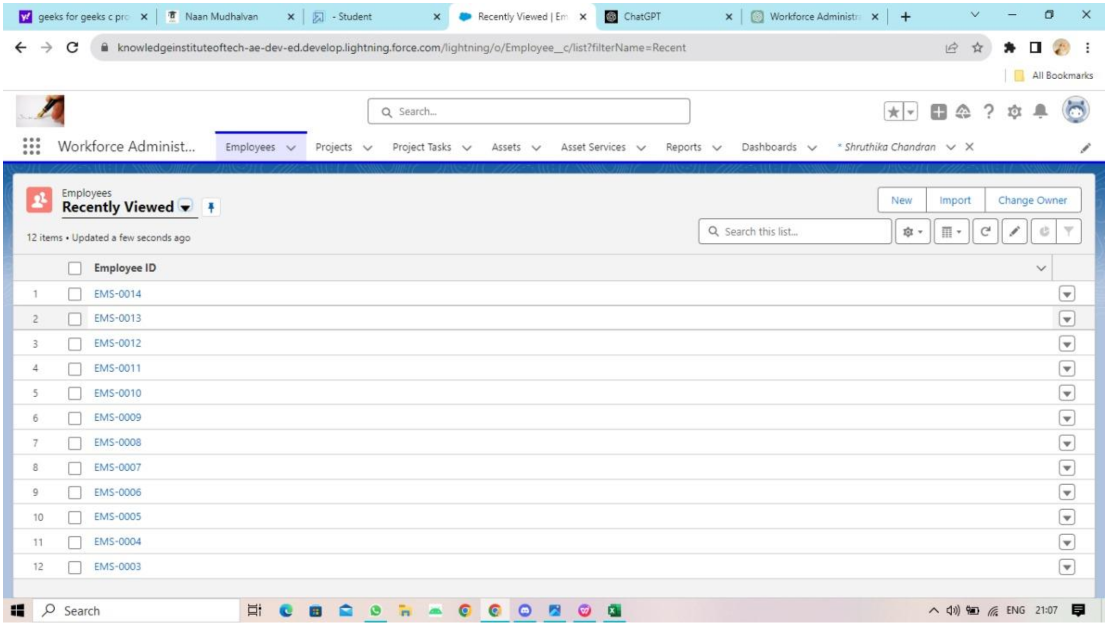


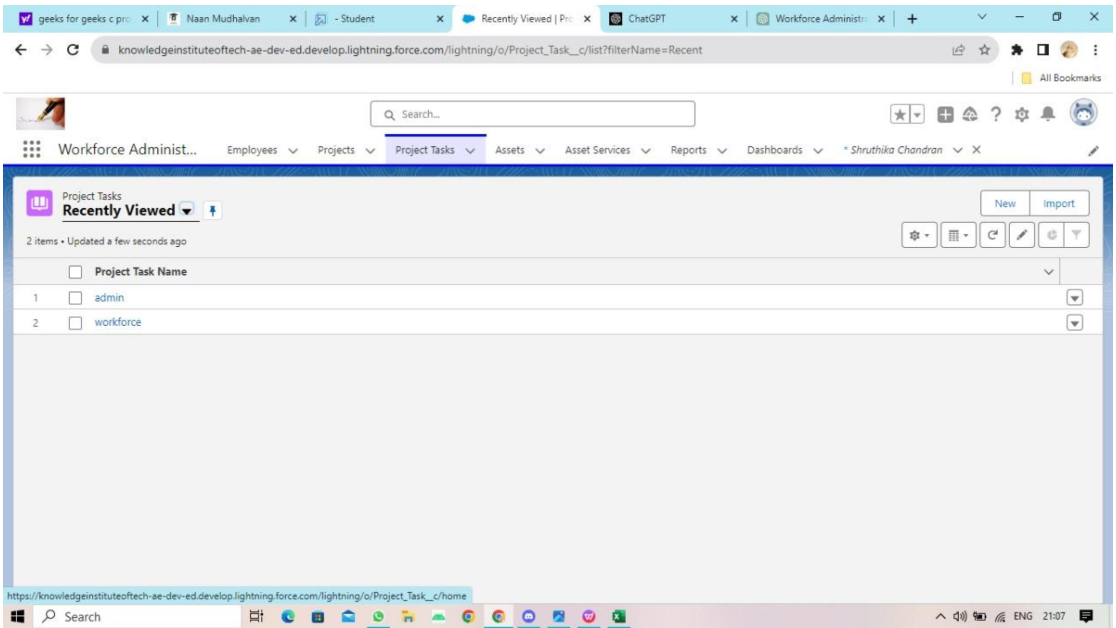


2.5 User Adoption

As a new Administrator, you perform user management tasks like creating and editing users, resetting passwords, granting permissions, configuring data access, and much more. In this unit, you will learn about users and how you add users to your Salesforce org.

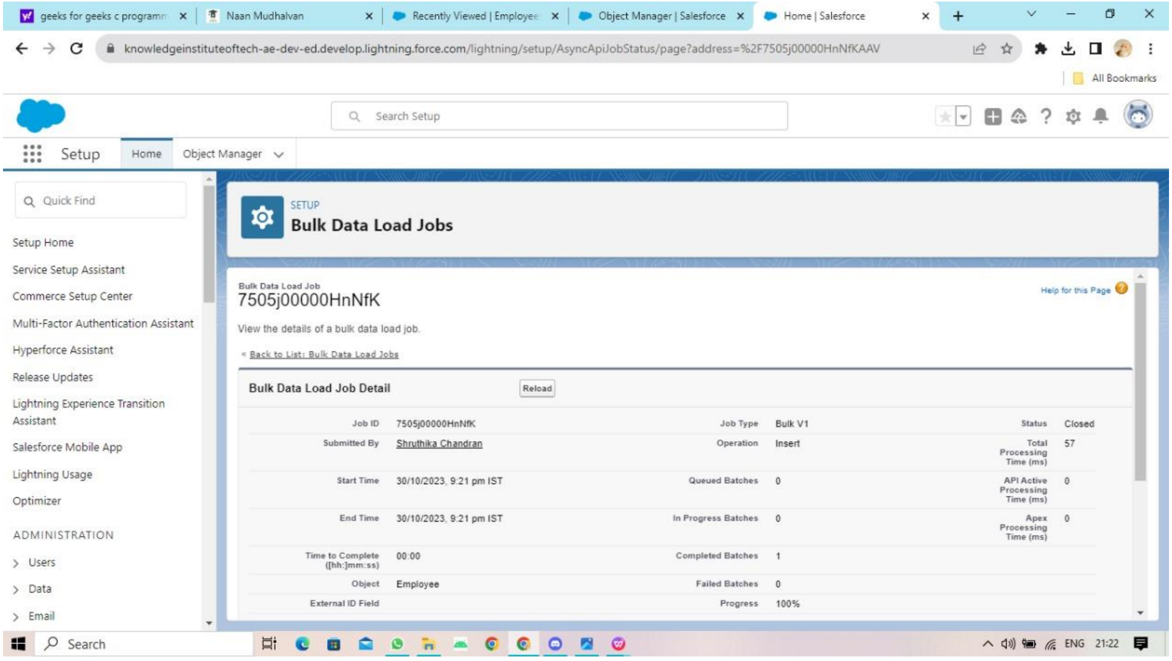
Create, View, Delete Records

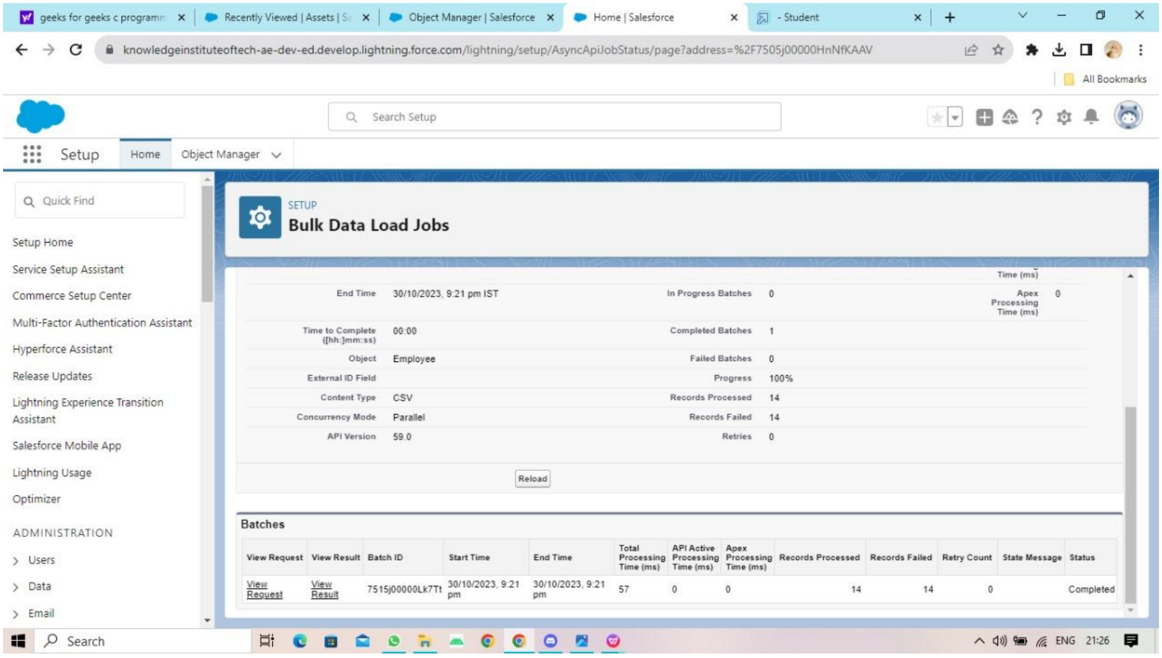




2.6 Data Import

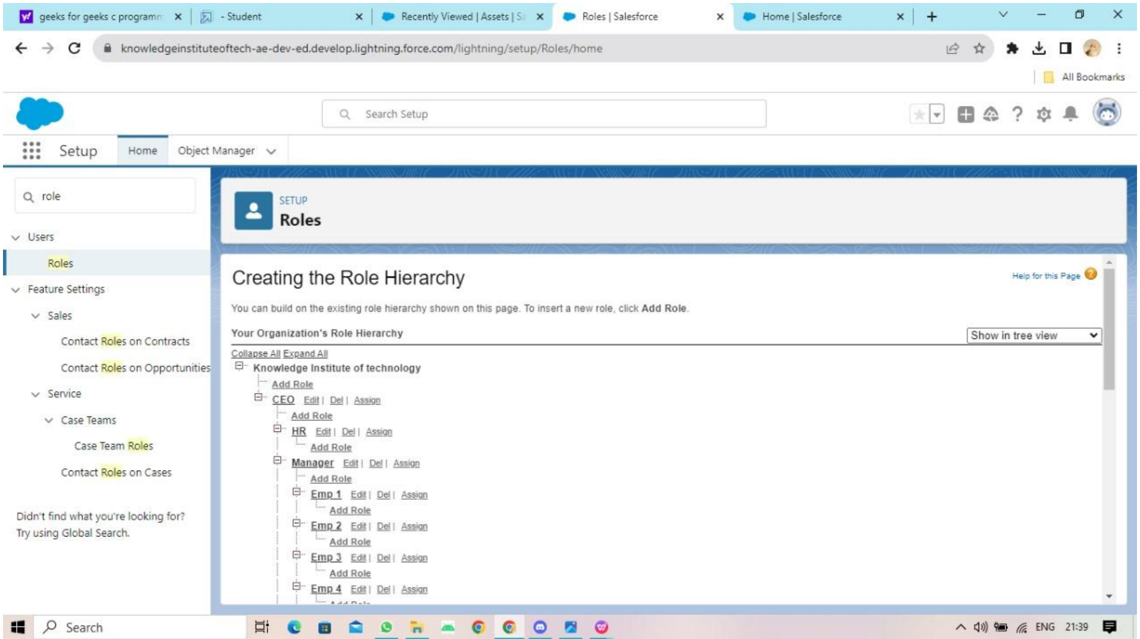
Data Import lets you upload data from external sources and combine it with data you collect via Analytics. You can then use Analytics to organize and analyze all of your data in ways that better reflect your business.

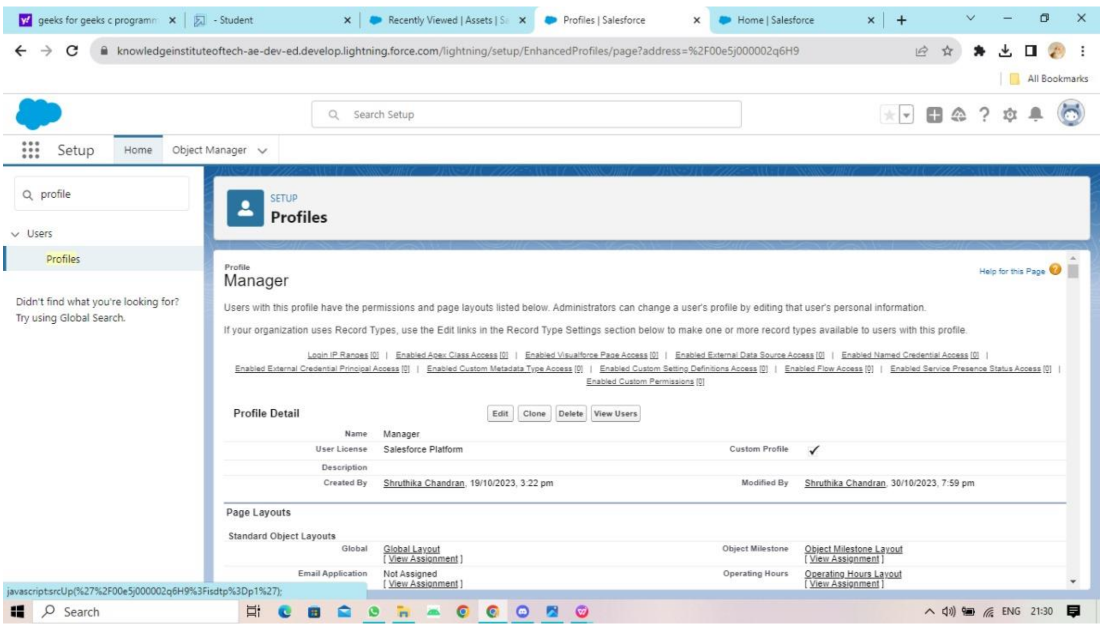


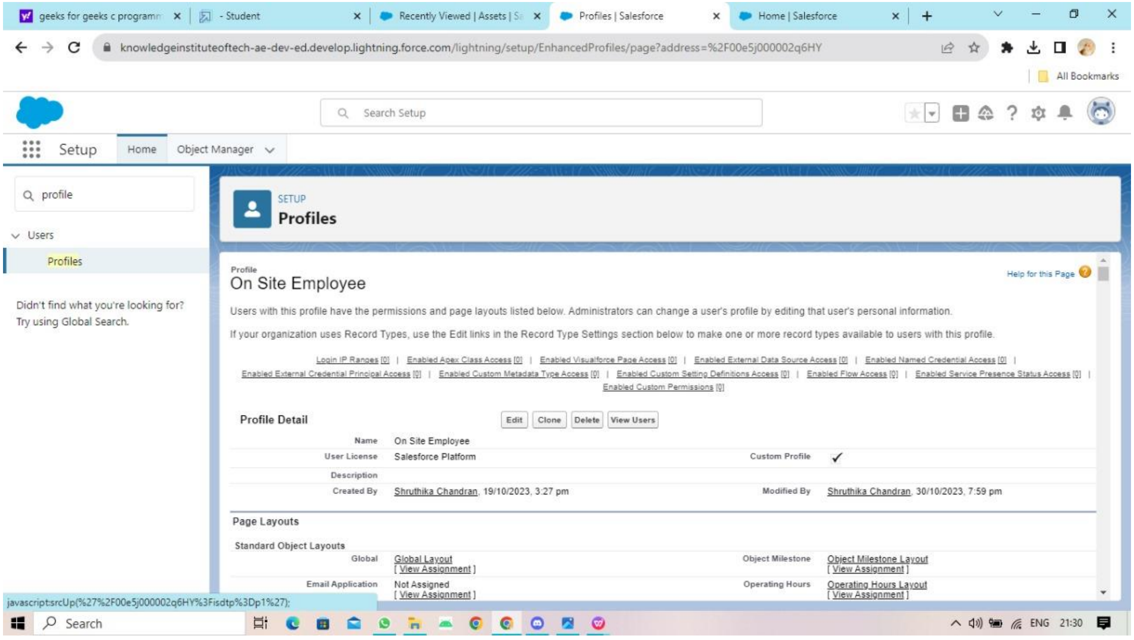


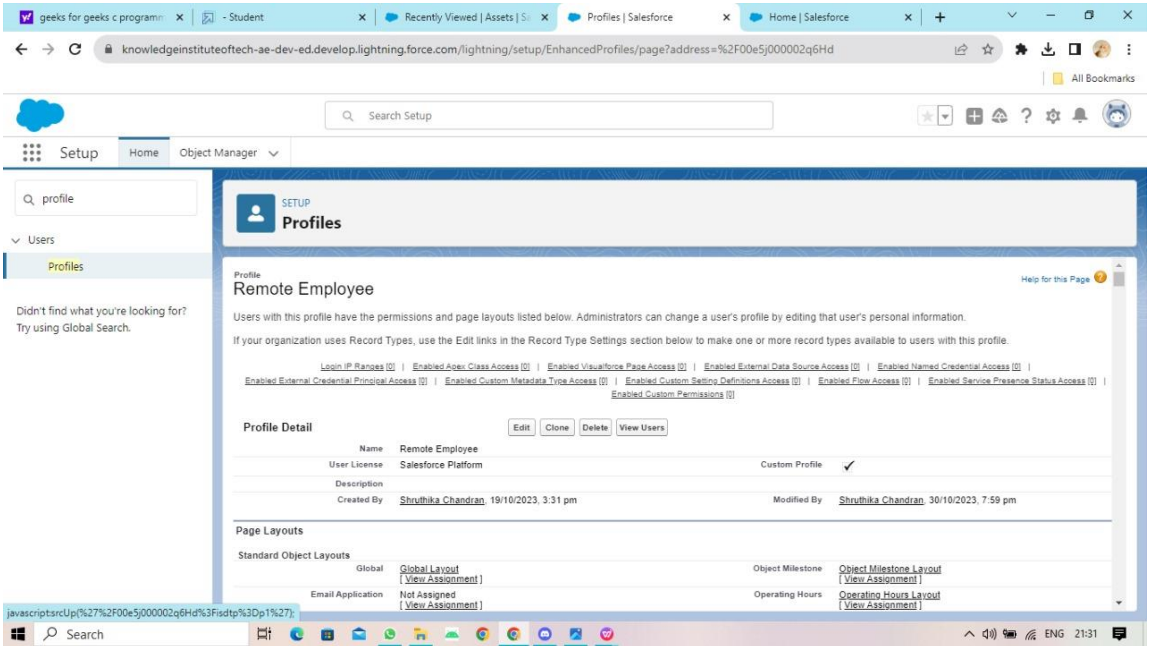
2.7 Profiles

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls "Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.



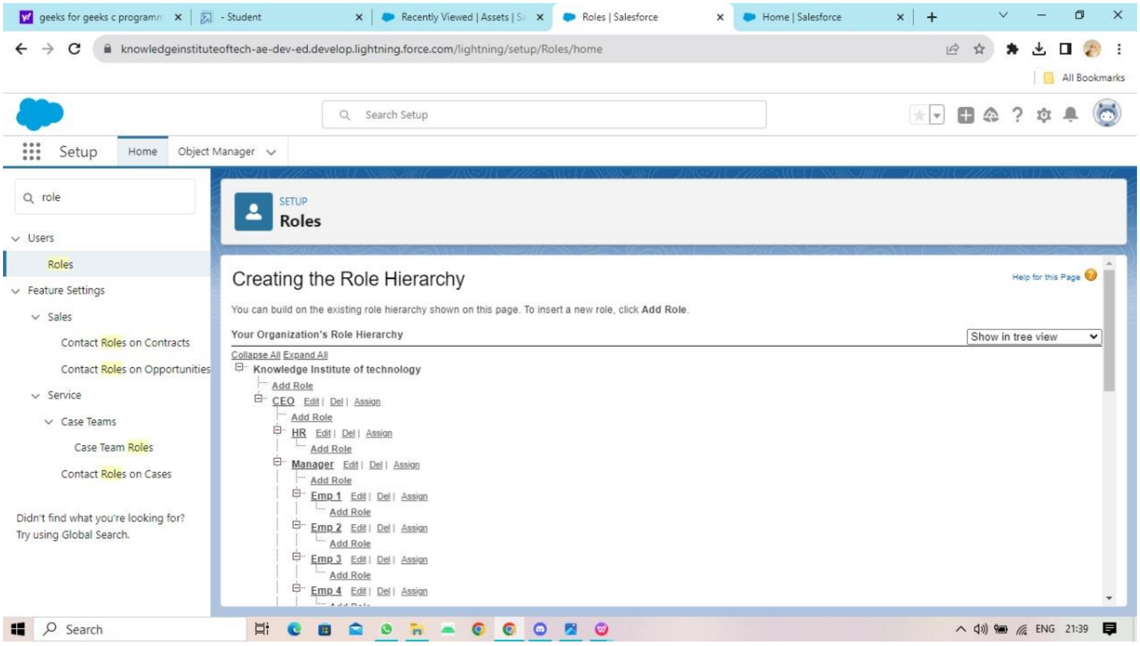


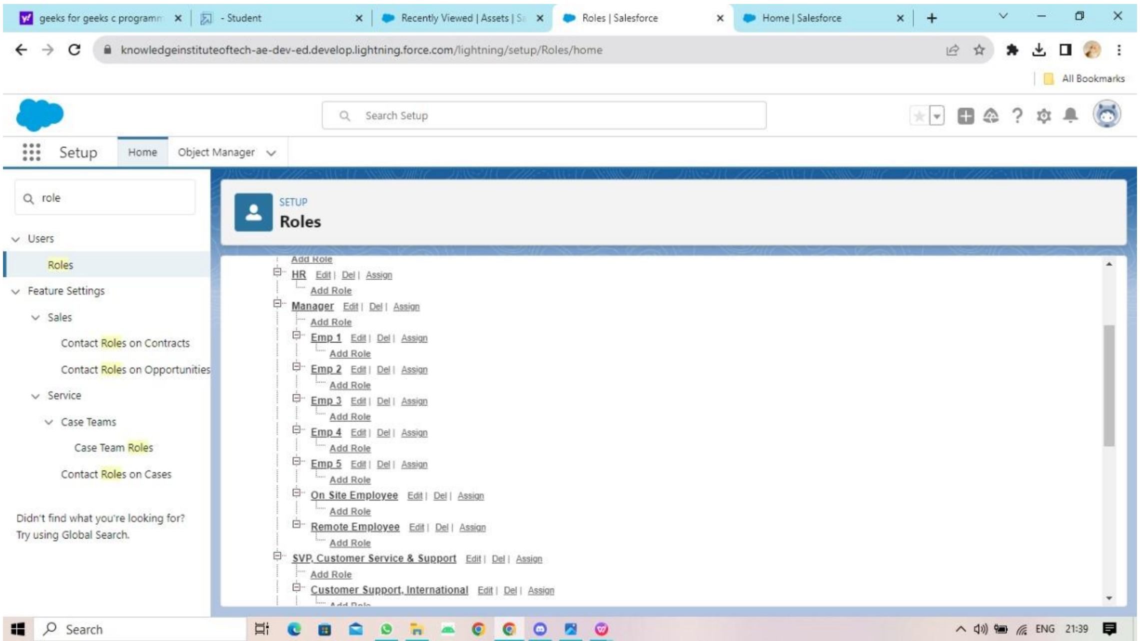




2.8 Roles

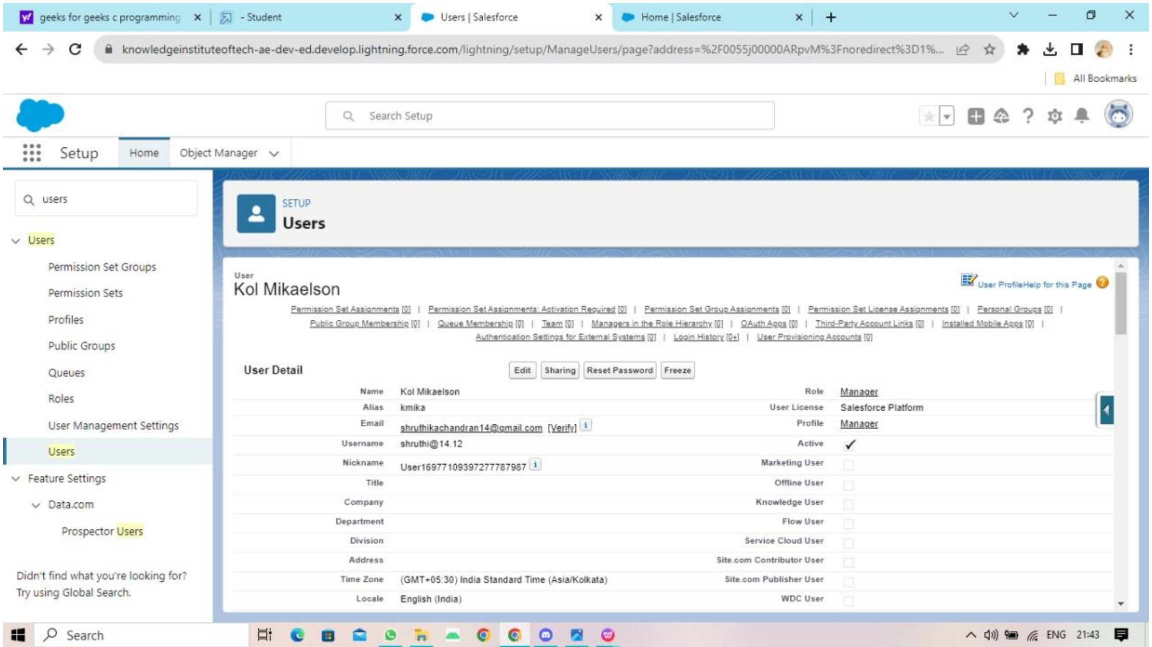
A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

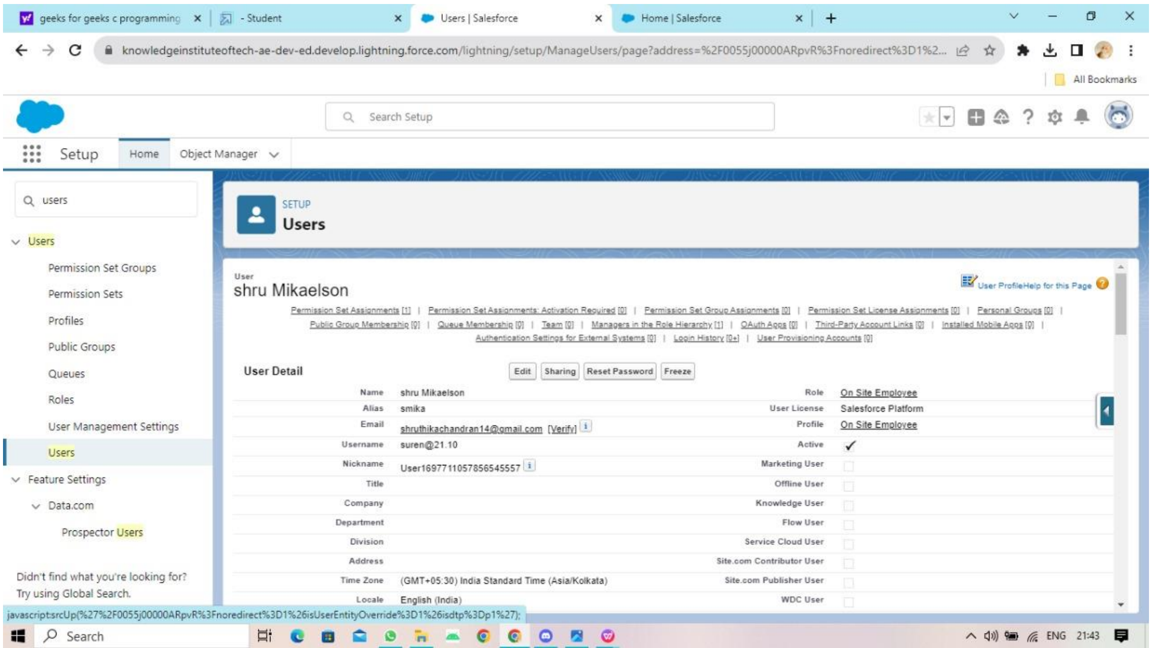


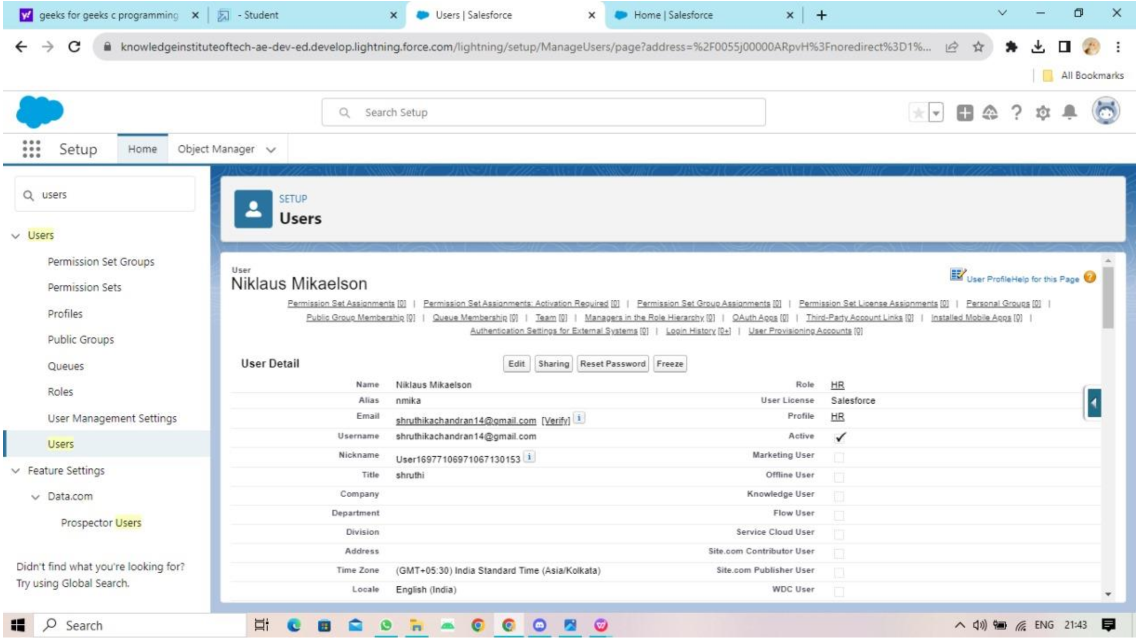


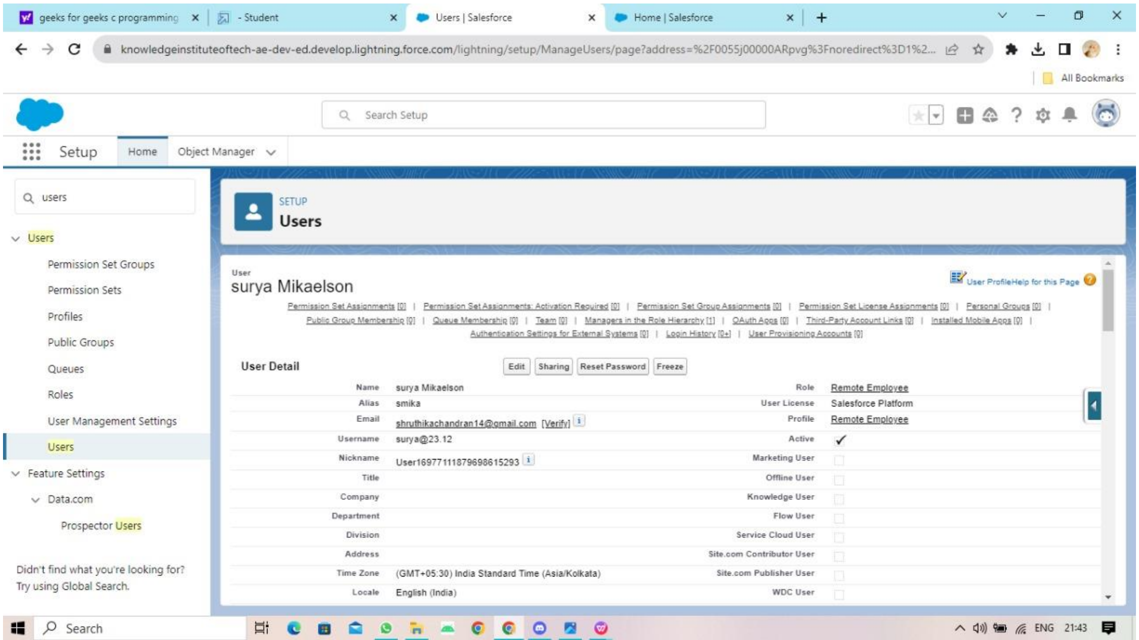
2.9 Users

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. The user account identifies the user, and the user account settings determine what features and records the user can access.



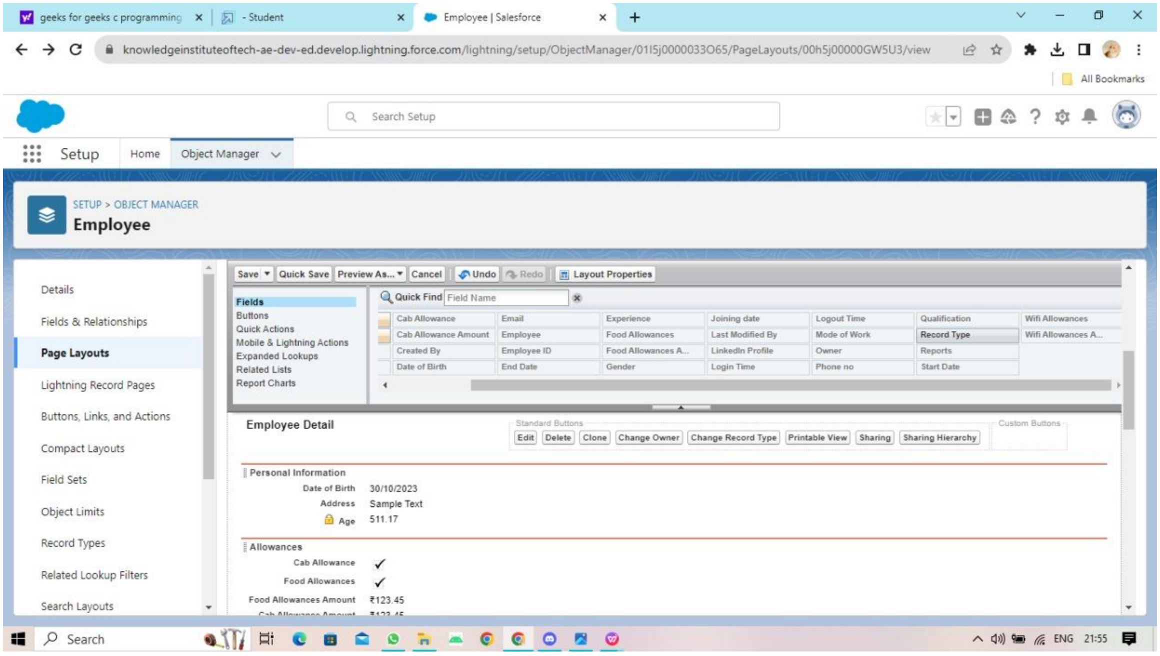


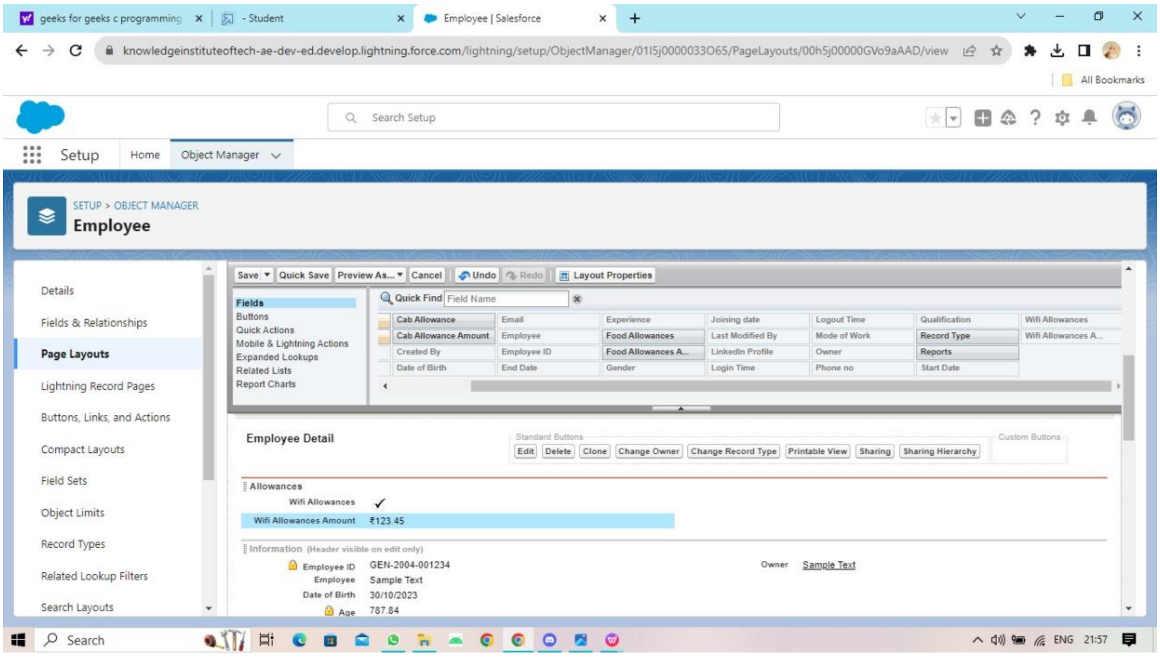




2.10 Page Layouts

Page Layout in Salesforce allows us to customize the design and organize detail and edit pages of records in Salesforce. Page layouts can be used to control the appearance of fields, related lists, and custom links on standard and custom objects' detail and edit pages.



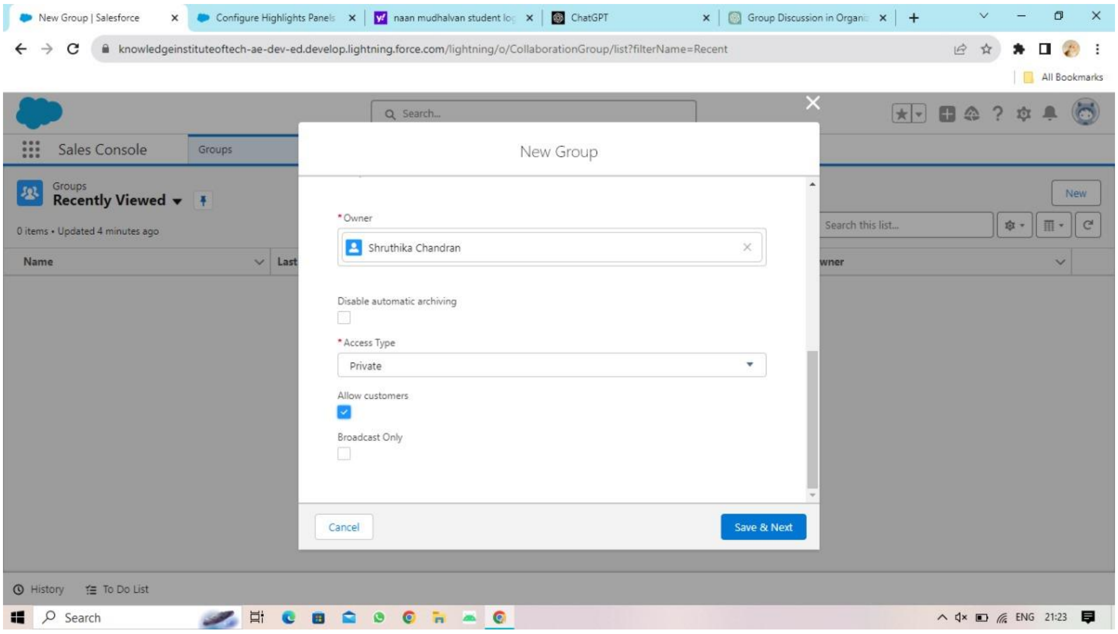


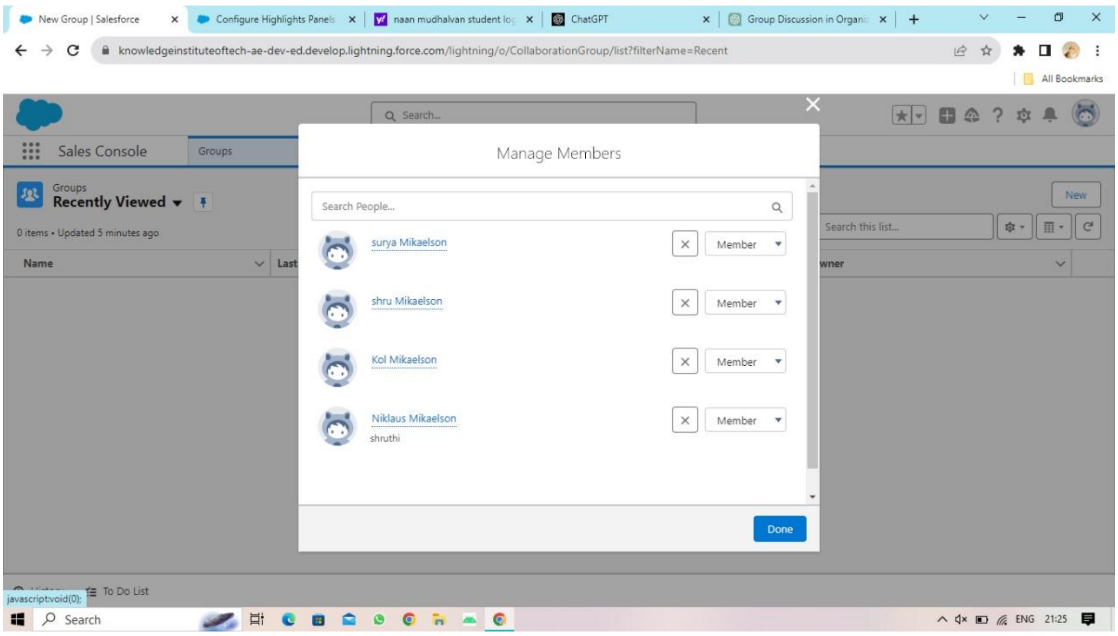
CHAPTER-3

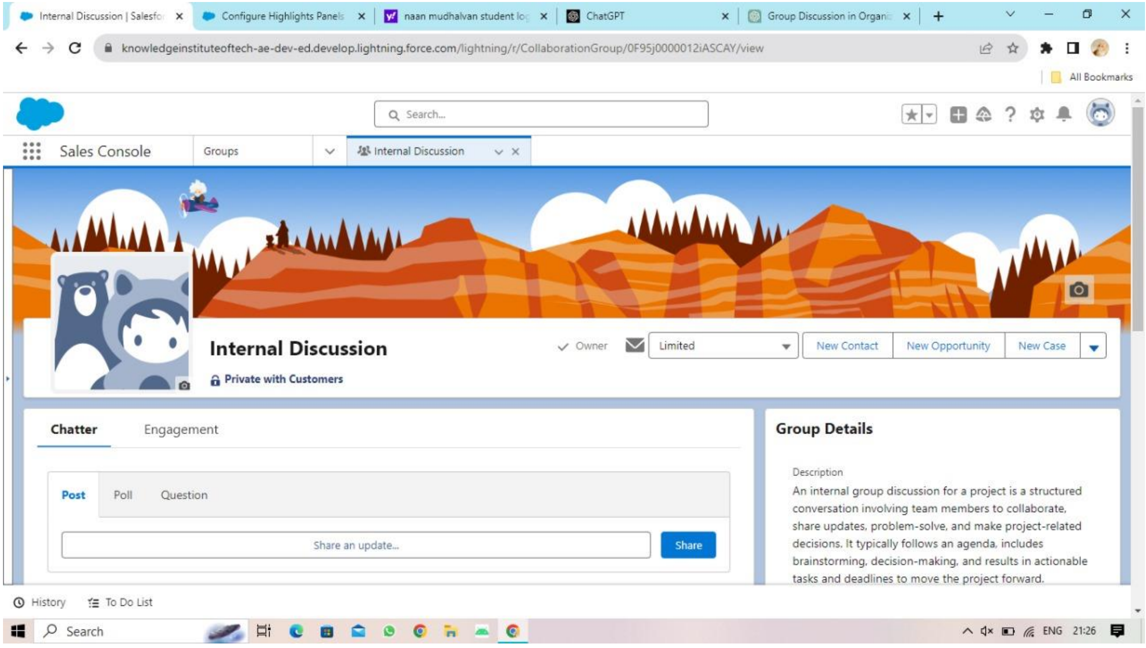
USERS & DATA SECURE

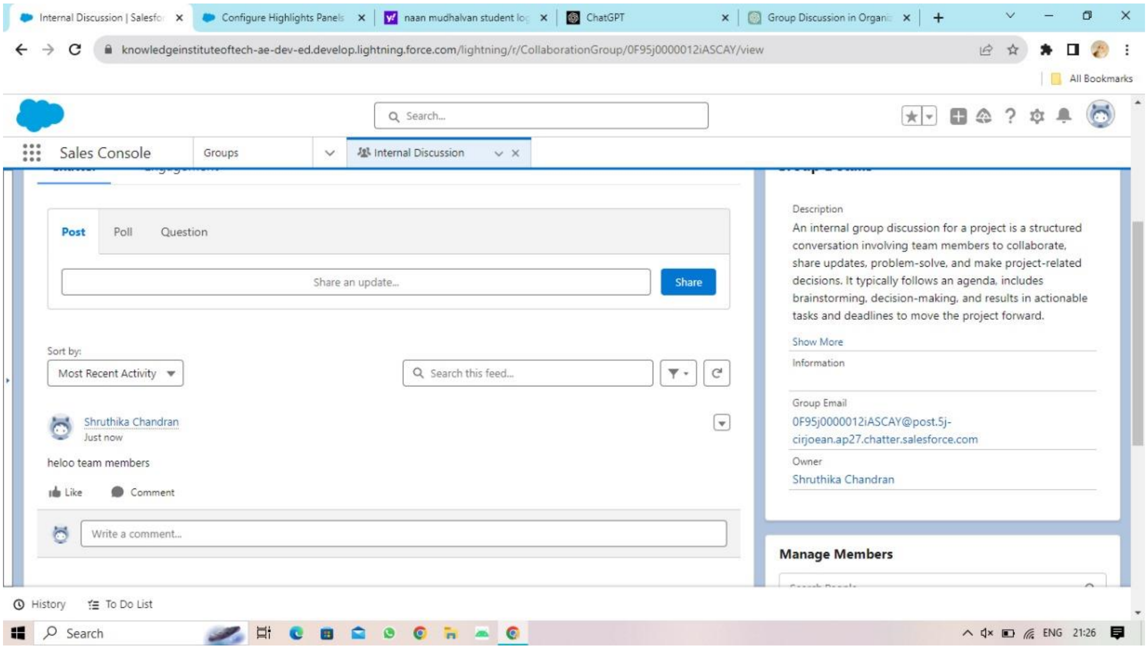
3.1 Chatter Group

Salesforce Chatter Groups are collaborative spaces within the Salesforce platform that enable teams to communicate, share information, and collaborate on projects. They provide a centralized hub for discussions, file sharing, and updates, allowing users to stay connected, streamline workflows, and enhance productivity.



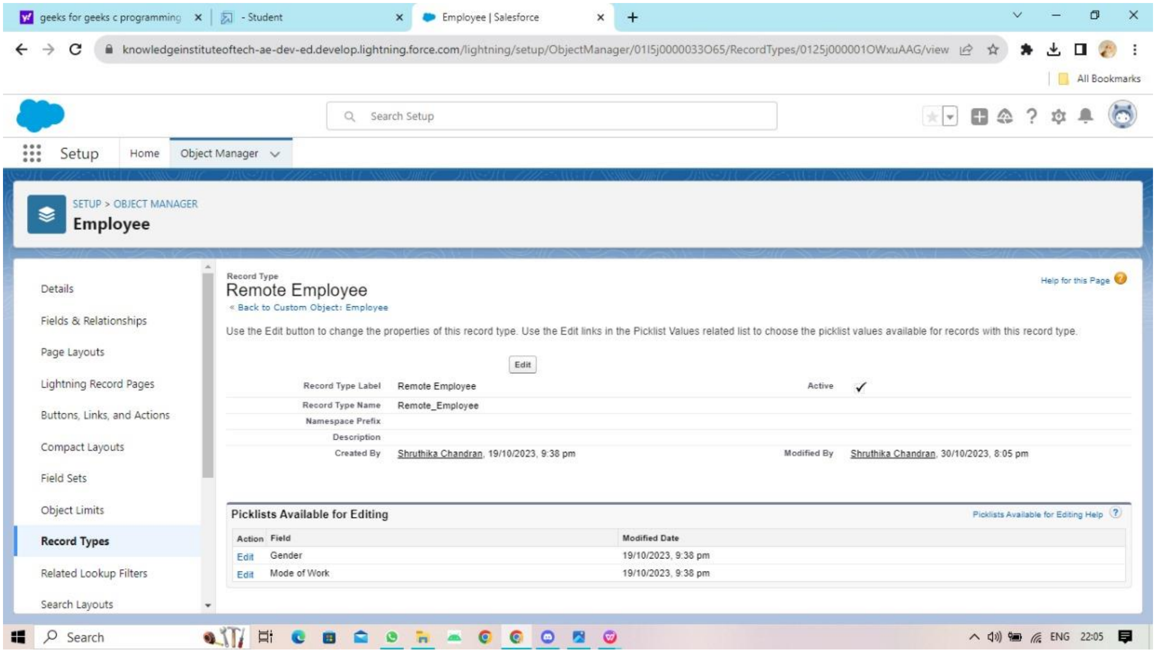


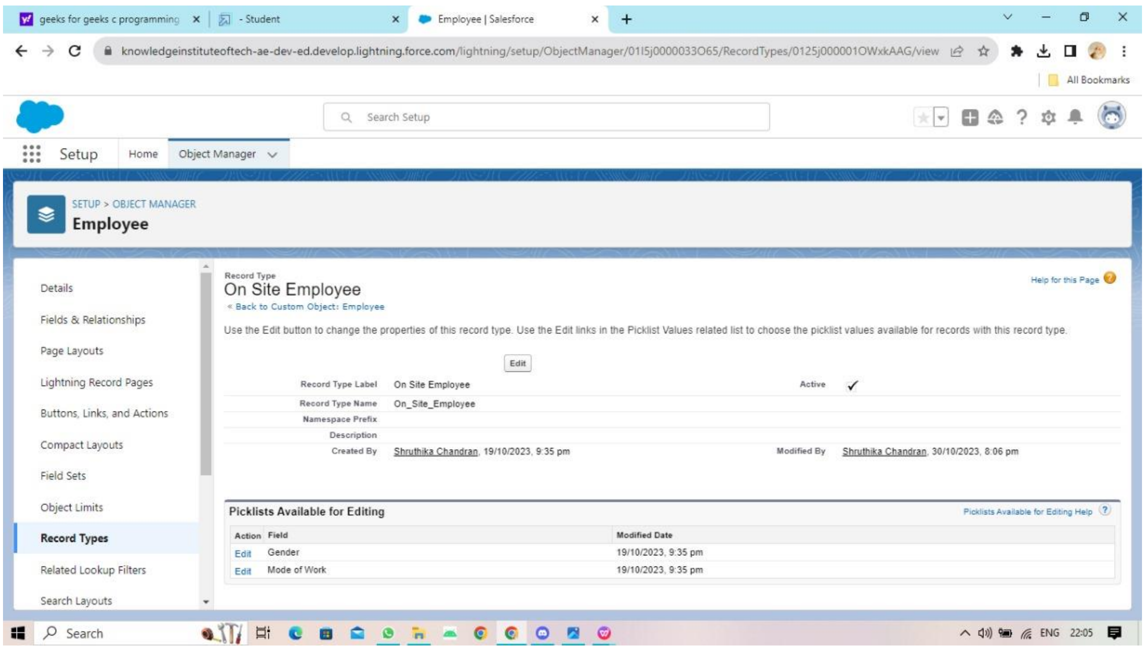

Internal Discussion
Private with Customers
Owner
Limited
New Contact
New Opportunity
New Case
Chatter
Engagement
Post
Poll
Question
Share an update...
Share
Group Details
Description
An internal group discussion for a project is a structured conversation involving team members to collaborate, share updates, problem-solve, and make project-related decisions. It typically follows an agenda, includes brainstorming, decision-making, and results in actionable tasks and deadlines to move the project forward.


Post
Poll
Question
Share an update...
Share
Sort by:
Most Recent Activity
Search this feed...
Shruthika Chandran
Just now
heloo team members
Like
Comment
Write a comment...
Description
An internal group discussion for a project is a structured conversation involving team members to collaborate, share updates, problem-solve, and make project-related decisions. It typically follows an agenda, includes brainstorming, decision-making, and results in actionable tasks and deadlines to move the project forward.
Show More
Information
Group Email
0F95j0000012iASCAY@post.5j-cirjoean.ap27.chatter.salesforce.com
Owner
Shruthika Chandran
Manage Members

3.2 Record Types

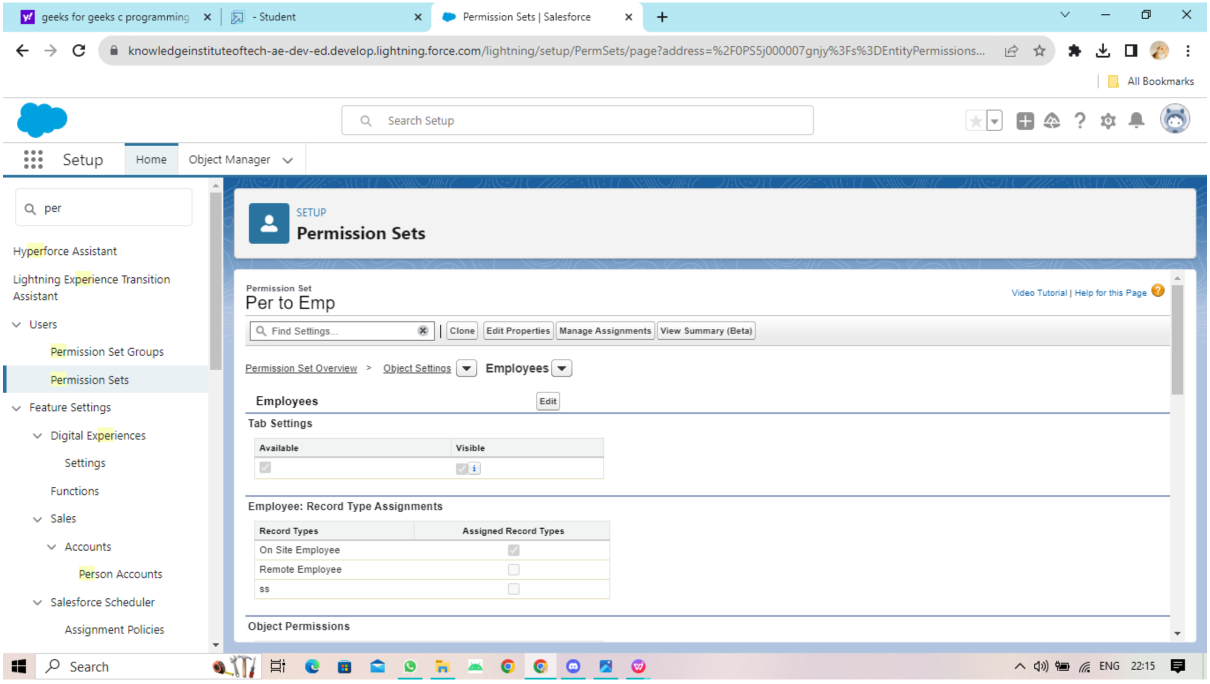
Record Types are a way of grouping many records of one type for that object. These can be applied to any standard or custom object, and allow you to have a different page layout, fields, required fields, and picklist values. Record types allow administrators to create a different page layout with custom picklist fields and values for the same business process.

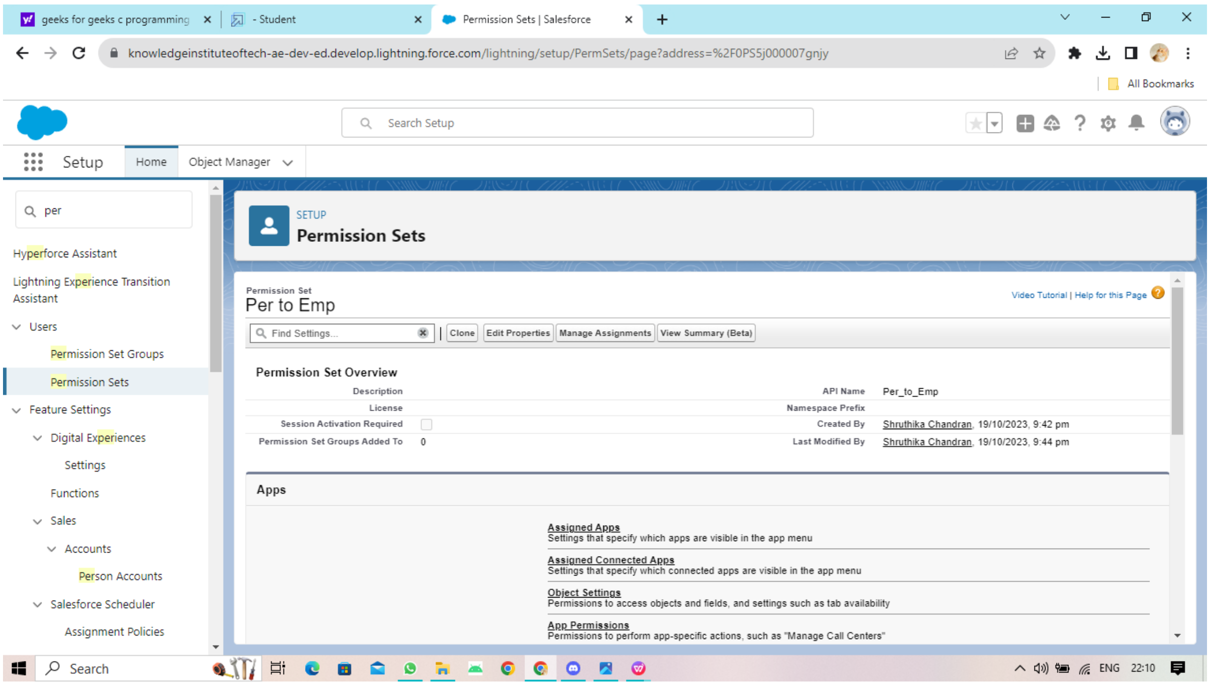


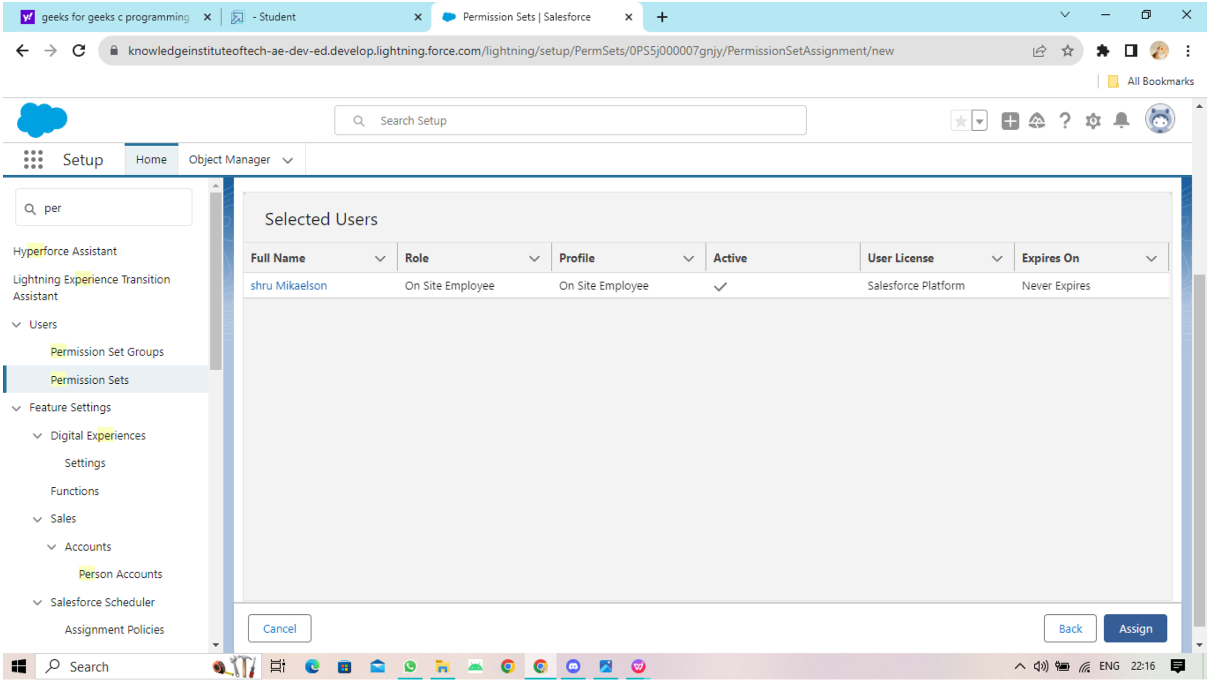


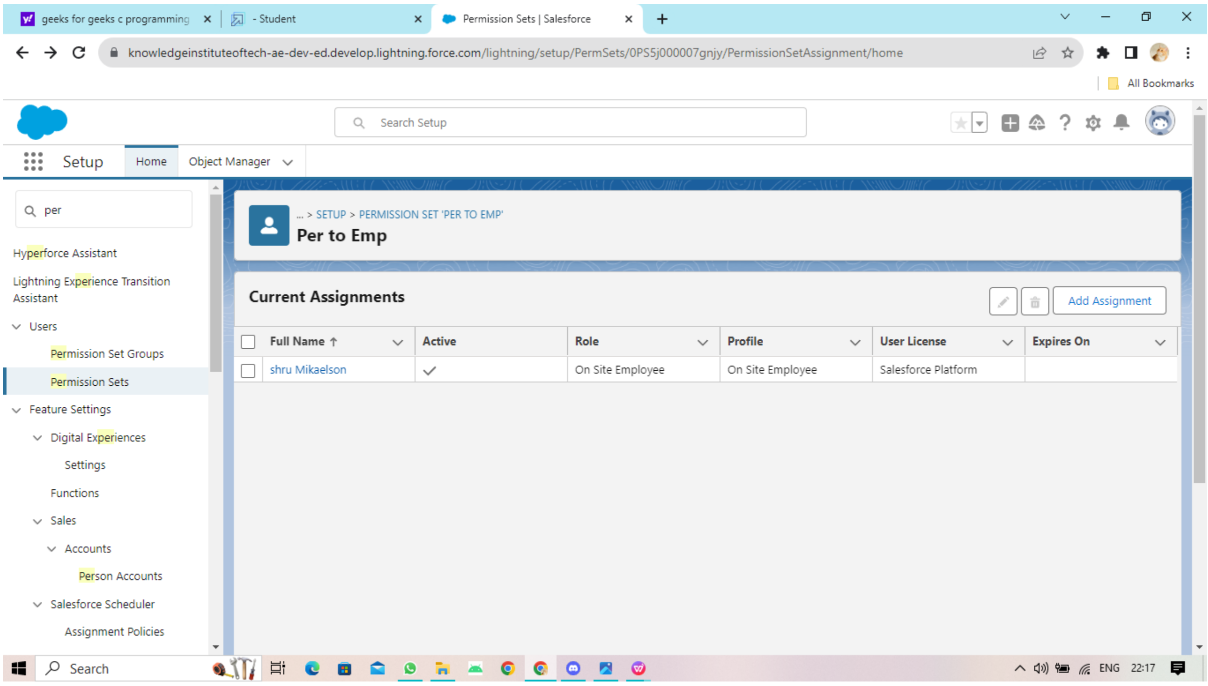
3.3 Permission Sets

permission set is a collection of settings and permissions that give users access to various tools and functions. Permission sets extend users' functional access without changing their profiles. Users can have only one profile but, depending on the Salesforce edition, they can have multiple permission sets.






Selected Users
Full Name
Role
Profile
Active
User License
Expires On
shru Mikaelson
On Site Employee
On Site Employee
Salesforce Platform
Never Expires
Cancel
Back
Assign


... > SETUP > PERMISSION SET 'PER TO EMP'
Per to Emp
Current Assignments
Add Assignment
Full Name
Active
Role
Profile
User License
Expires On
shru Mikaelson
On Site Employee
On Site Employee
Salesforce Platform

CHAPTER-4

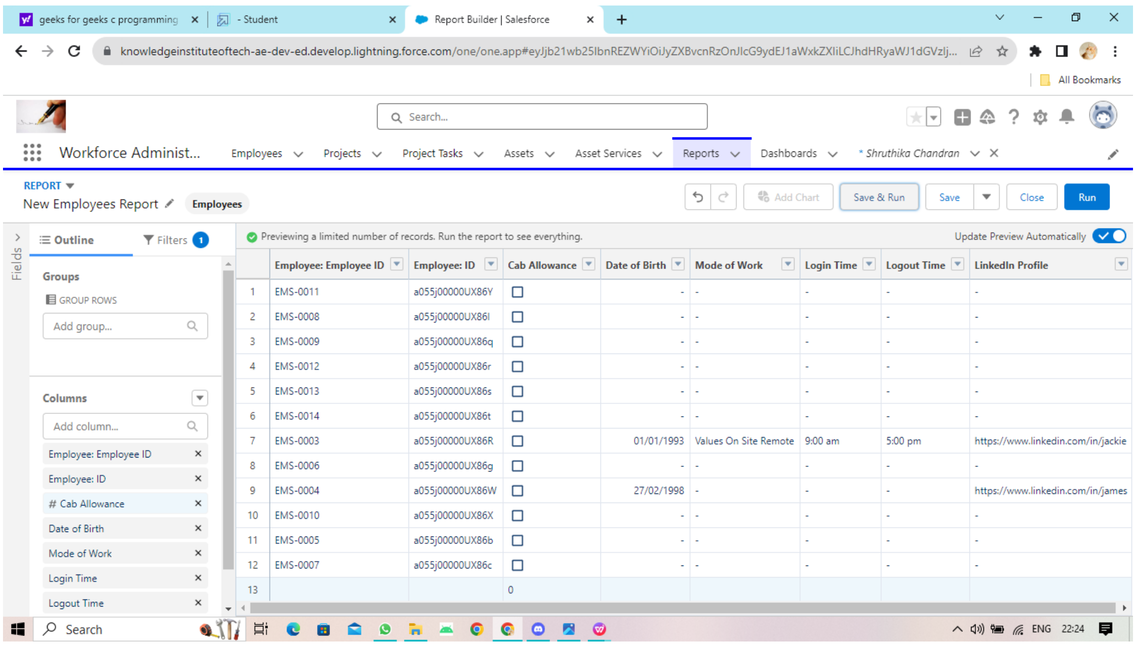
PROCESS AND REPORTS

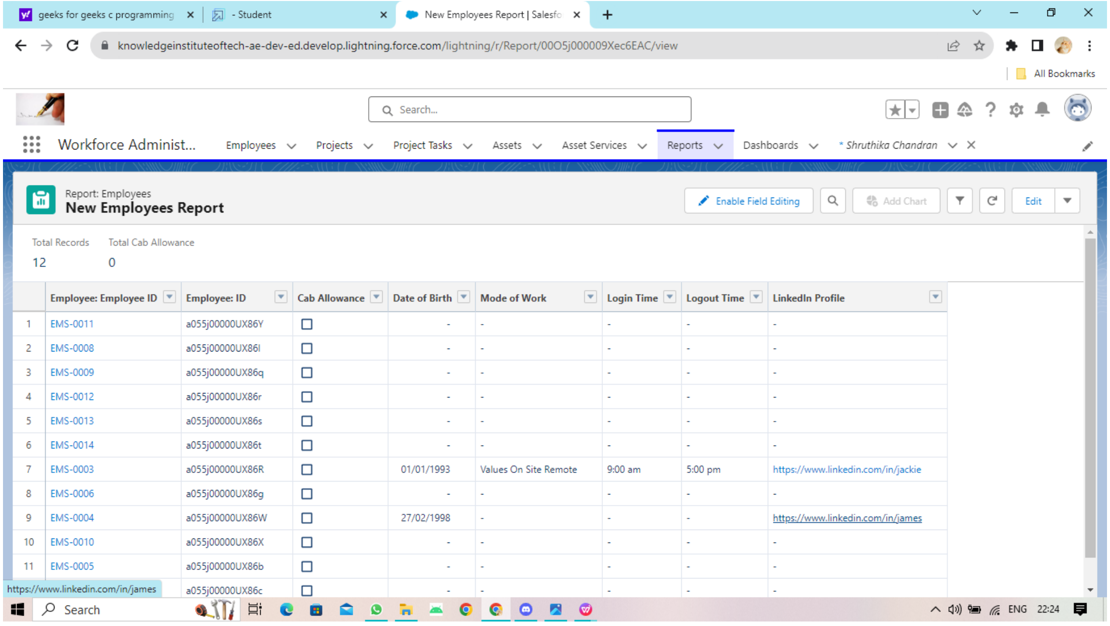
4.1 Reports

Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

Types of Reports in Salesforce

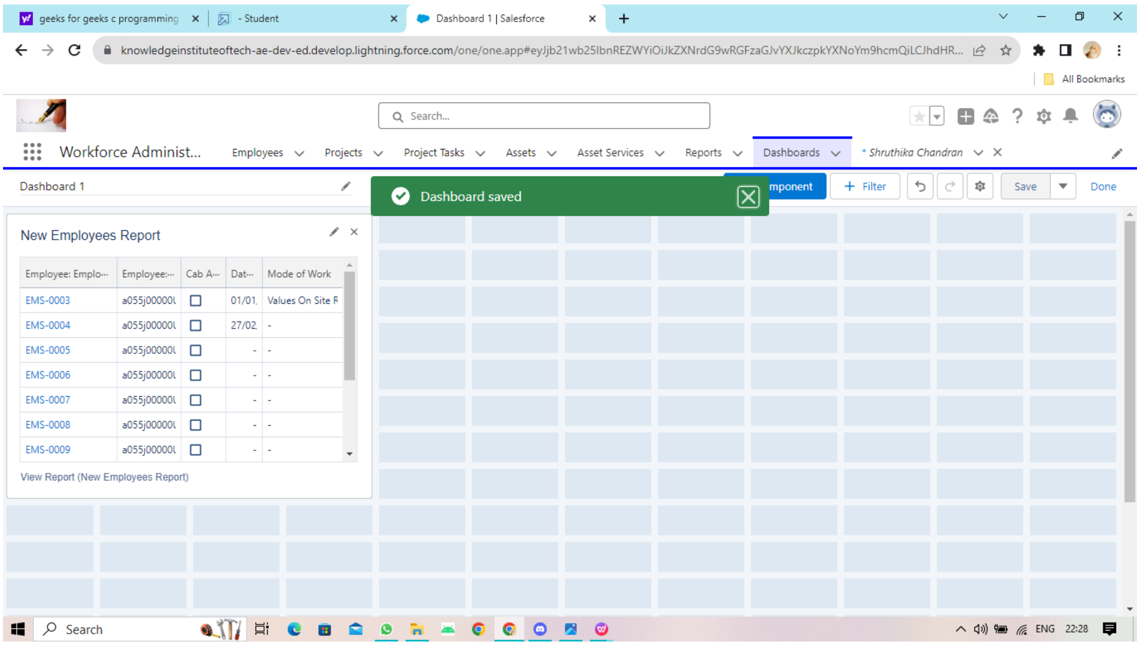
- Tabular
- Summary
- Matrix
- Joined Reports

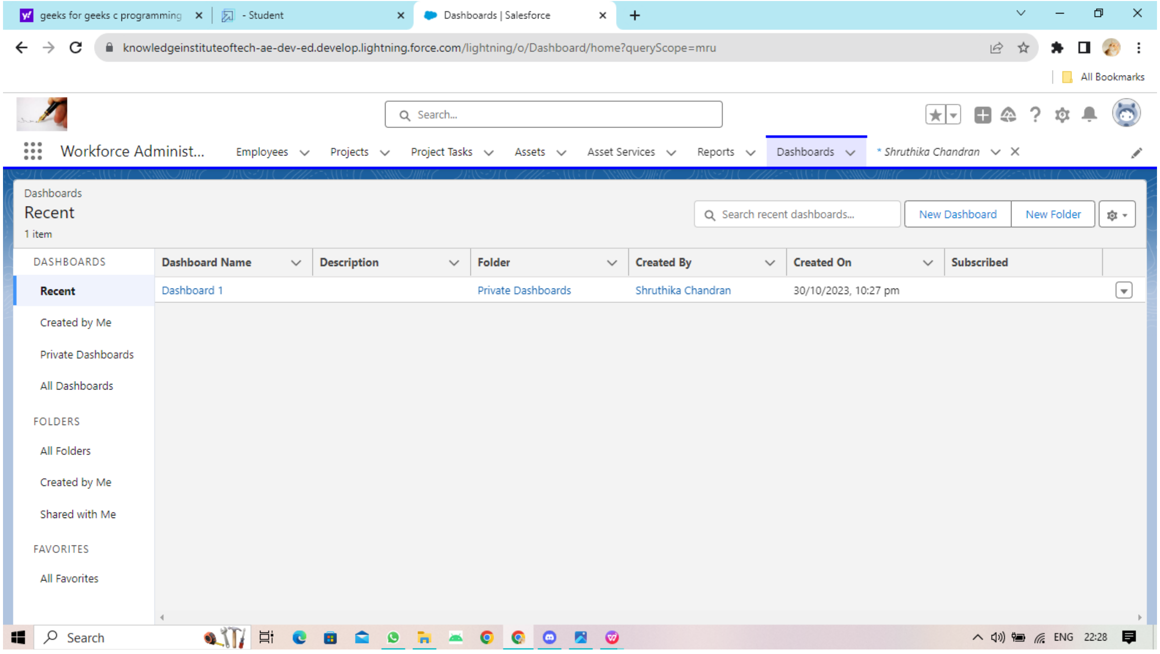




4.2 Dashboards

Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.



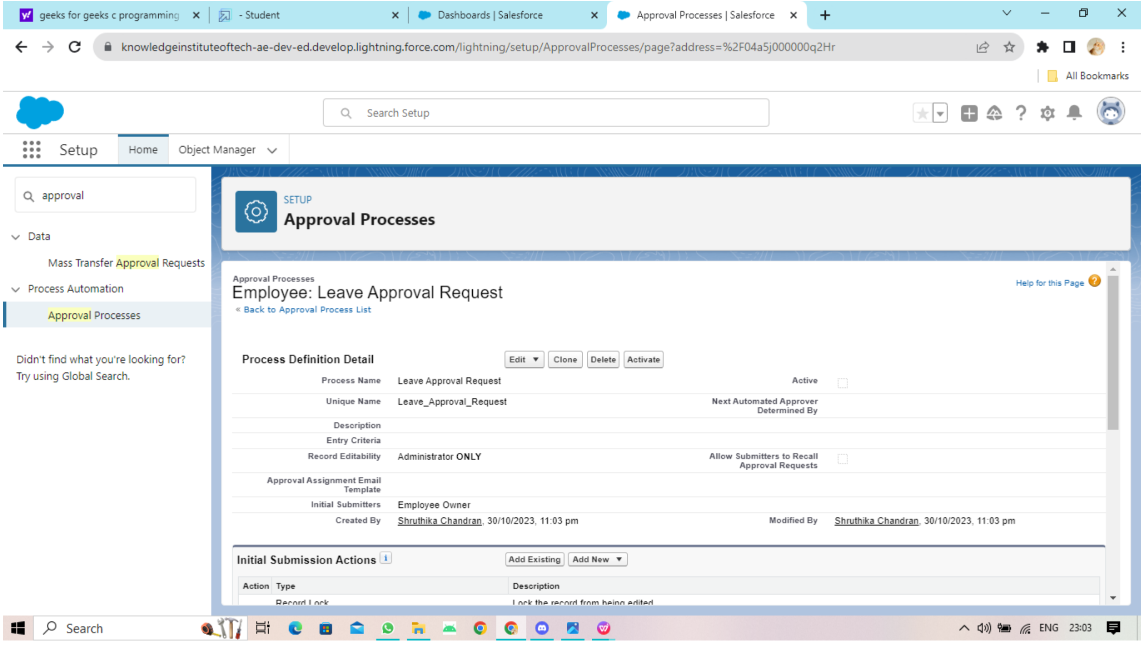


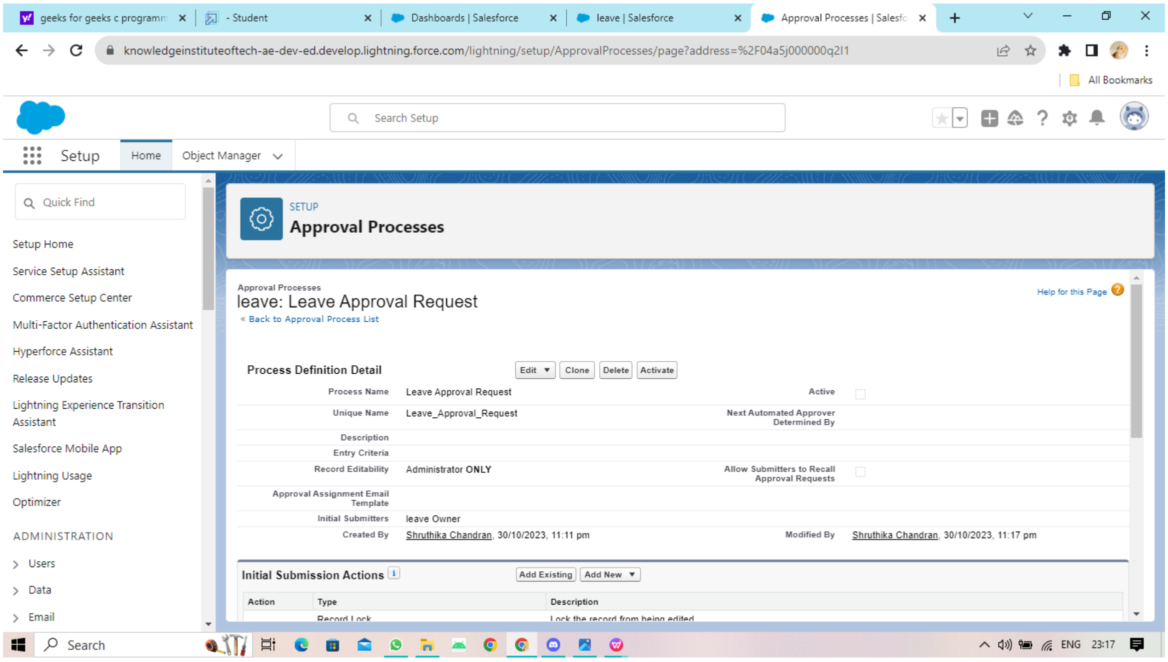
4.3 Approval Process

An approval process is an automated process your agency can use to approve records in Salesforce.

An approval process specifies the criteria a record must meet before it can be submitted for approval, the steps necessary for a record to be approved, and who must approve it at each step.

A step can apply to all records included in the process or just records that have certain attributes. An approval process also specifies the actions to take when a record is approved, rejected, recalled, or first submitted for approval.

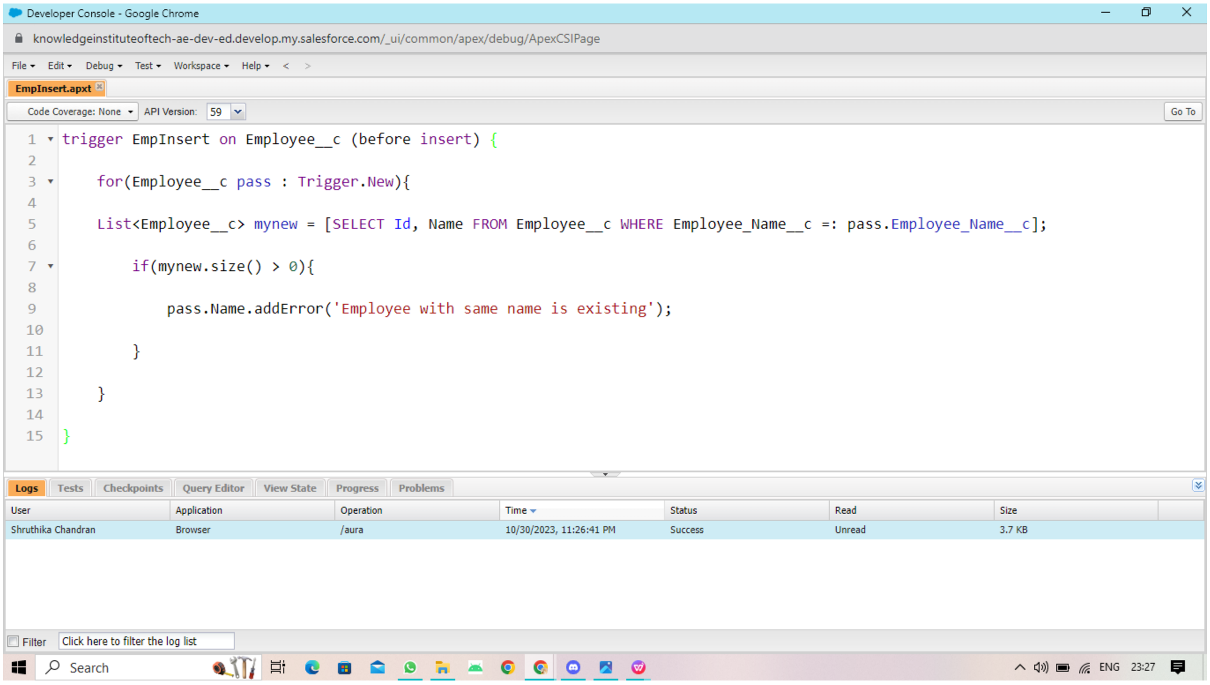


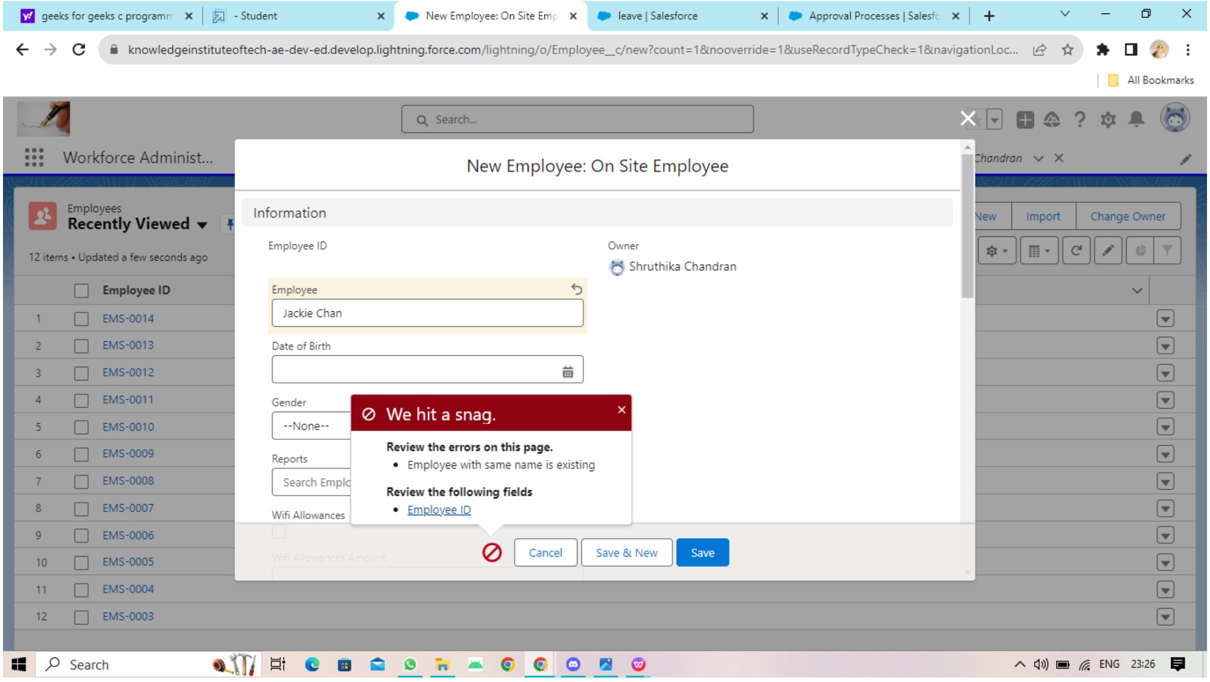


4.4 Final Apex Trigger

Create a new Apex Class and Write down the following code logic

```
trigger EmpInsert on Employee__c (before insert) {
for(Employee__c pass : Trigger.New){
List<Employee__c> mynew = [SELECT Id, Name FROM Employee__c WHERE
Employee_Name__c =: pass.Employee_Name__c];
if(mynew.size() > 0){
    pass.Name.addError('Employee with same name is existing');
  }
 }
}
```





CHAPTER-5

Conclusion

In conclusion, the Workforce Administration Solution project implemented through Salesforce has been a resounding success. It has not only streamlined and optimized our workforce management processes but also enhanced data visibility and improved the overall employee experience. We now have a robust platform that offers scalability and cost savings, and we're better equipped to make data-driven decisions for the future.

However, it wasn't without its challenges, such as the complex data migration and the need for effective change management and user adoption strategies. Nevertheless, the benefits far outweigh the challenges, and this project represents a significant milestone in our journey toward a more efficient and data-driven workforce administration.

Moving forward, it's crucial to continue monitoring the system's performance and gathering feedback from users to make further improvements. Regular training and support will ensure that all employees fully leverage the system's capabilities, and as our organization evolves, we can adapt the solution to meet new workforce administration needs. This project serves as a testament to our commitment to innovation and efficiency in managing our workforce, and it positions us for a more productive and successful future.

CHAPTER-6

PROJECT DEMONSTRATION

Github:

https://github.com/ShruthikaChandran/Naanmudhalvan-Salesforce--NM2023TMID02212-Kiot.git

Demo Link:

https://drive.google.com/drive/folders/1SBz9V7G1WWHQNHWnhr5tUNbzdHKW_ih_