



Assignment 7 - Design and develop custom Application (Mini Project) using Salesforce Cloud.

Computer (Veer Narmad South Gujarat University)

Assignment 7

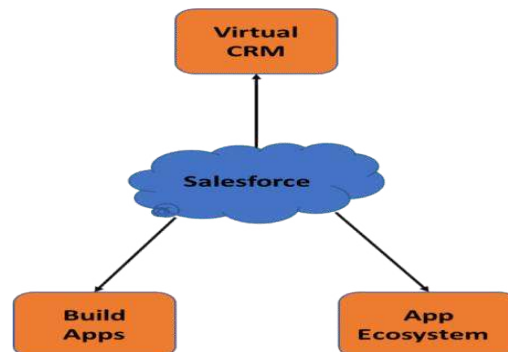
- **Problem Definition:** Design and develop custom Application (Mini Project) using Salesforce Cloud.
- **Objective:** To create an custom application on Salesforce Lightning platform.
- **Software / Hardware Requirements:** OS - Windows / Ubuntu, Google Chrome.
- **Theory:**

1. Salesforce:

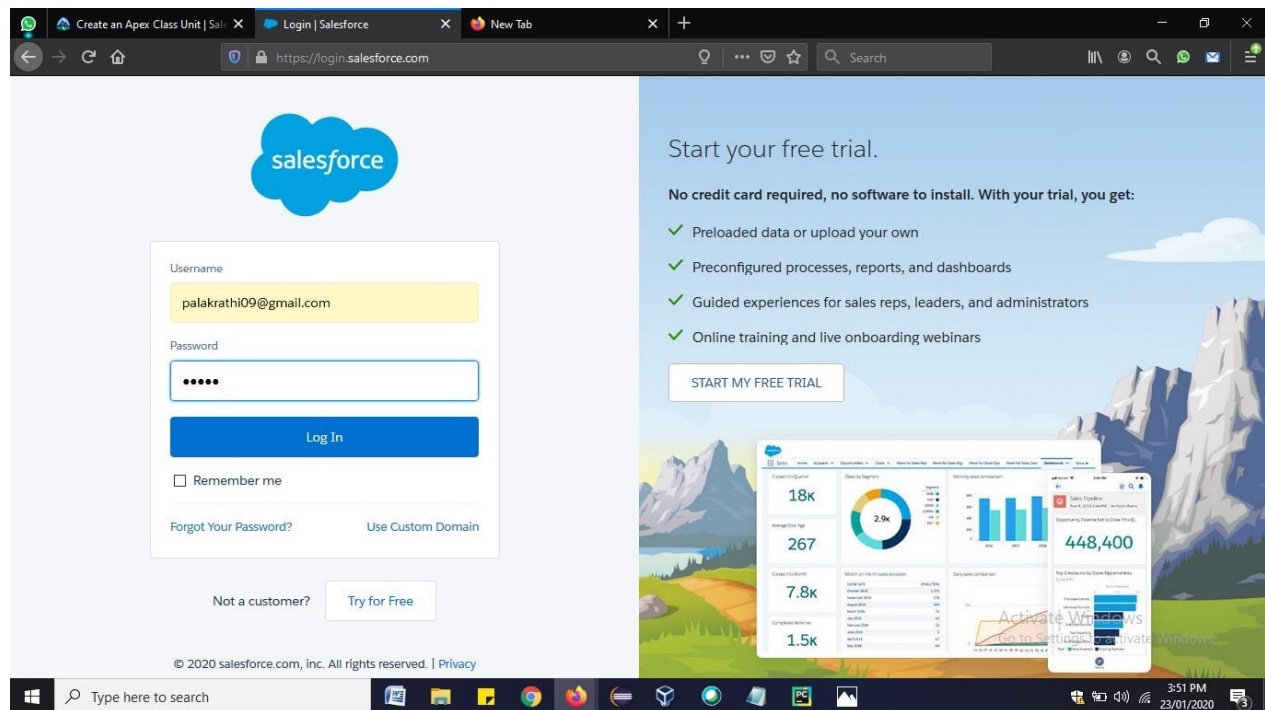
Salesforce is a cloud computing service as a software (SaaS) company that specializes in customer relationship management (CRM). Salesforce's services allow businesses to use cloud technology to better connect with customers, partners and potential customers. The software has become the number one for customer success and helps businesses track customer activity, market to customers and many more services. Salesforce is a [customer relationship management](#) solution that brings companies and customers together. It is one integrated CRM platform that gives all your departments — including marketing, sales, commerce, and service — a single, shared view of every customer.

2. Salesforce Lightning Experience:

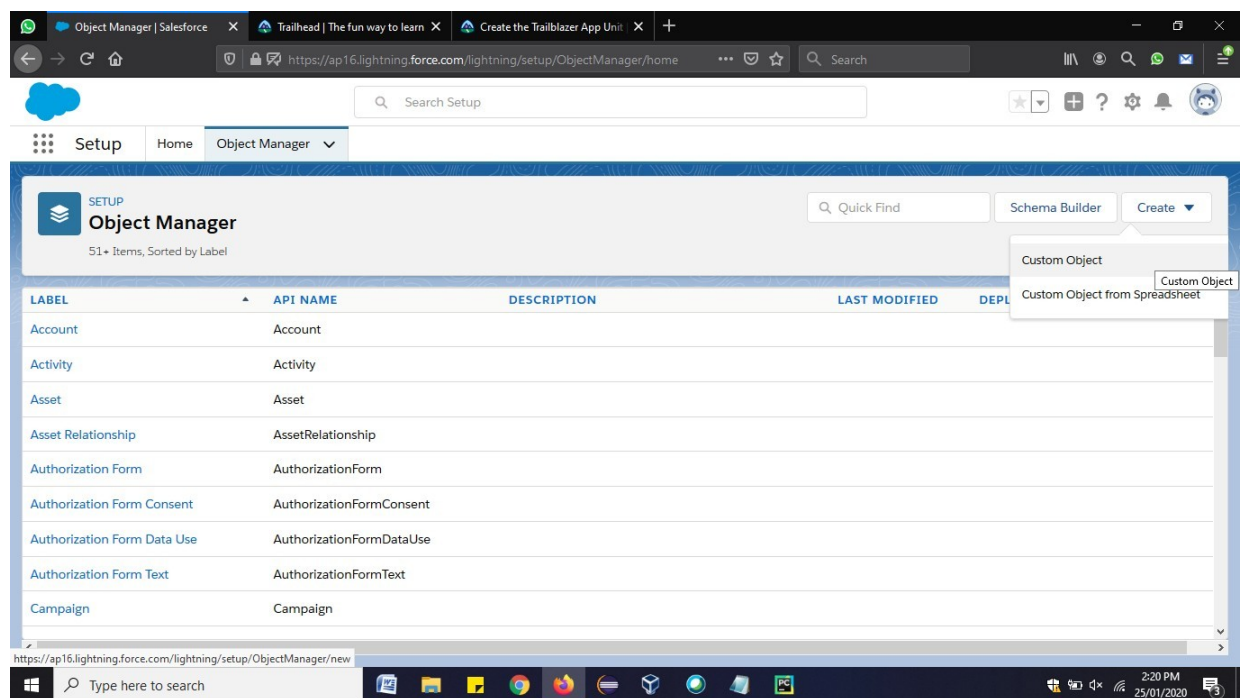
Salesforce Lightning Experience is simply referred to as “Lightning”. When working with lightning Salesforce we will learn about different Salesforce lightning topics like Lightning Login, Lightning App Builder, Lightning for Outlook, Salesforce Lightning Components, Lightning Sync and many more. Some of them are applicable in Lightning Experience only, but some others will work in both Lightning Experience and older Classic user interfaces. Lightning Sync is used to sync your user contacts and events between your email server with Salesforce.



Step 1: Log into Salesforce Developer account.



Step 2: Open Salesforce Lightning platform and click on Object Manager => Create => Custom Object.



Step 3: Fill in the required fields and under Optional Features, select **Allow Reports** and **Allow Activities**. Click **Save**.

The screenshot shows the 'New Custom Object' setup page in Salesforce. The 'Custom Object Definition Edit' section is active, displaying fields for 'Custom Object Information'. The 'Label' field is 'Student_Detail' (Example: Account), the 'Plural Label' is 'Student_Details' (Example: Accounts), and the 'Object Name' is 'Student_Detail' (Example: Account). The 'Description' field is empty. A message at the top states: 'Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. [Tell me more!](#) [Don't show this message again](#)'. The browser address bar shows 'https://ap16.lightning.force.com/lightning/setup/ObjectManager/new'.

The screenshot shows the 'New Custom Object' setup page in Salesforce, specifically the 'Enter Record Name Label and Format' section. The 'Record Name' field is 'Student_Detail Name' (Example: Account Name), and the 'Data Type' is 'Text'. Below this, the 'Optional Features' section has checkboxes for 'Allow Reports' (checked), 'Allow Activities' (checked), 'Track Field History' (unchecked), and 'Allow in Chatter Groups' (unchecked). The 'Object Classification' section has checkboxes for 'Allow Sharing' (checked), 'Allow Bulk API Access' (checked), and 'Allow Streaming API Access' (checked). The 'Deployment Status' section is at the bottom. The browser address bar shows 'https://ap16.lightning.force.com/lightning/setup/ObjectManager/new'.

Step 4: Now, Click on Fields & Relations => New.

The screenshot shows the Salesforce Setup interface for the 'Student_Detail' object. The 'Fields & Relationships' section is active, displaying a table of fields. The table has columns: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. There are 4 items listed, sorted by Field Label.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Student_Detail Name	Name	Text(80)		✓

Step 5: Then select option “Email” and click Next-> Next -> Save.

The screenshot shows the same Salesforce Setup interface, but now the 'Email' field type is selected from the list on the left. The right pane displays the description for the 'Email' field type.

☒ Currency
Allows users to enter a dollar or other currency amount and automatically formats the field as a currency amount. This can be useful if you export data to Excel or another spreadsheet.

☐ Date
Allows users to enter a date or pick a date from a popup calendar.

☐ Date/Time
Allows users to enter a date and time, or pick a date from a popup calendar. When users click a date in the popup, that date and the current time are entered into the Date/Time field.

☒ Email
Allows users to enter an email address, which is validated to ensure proper format. If this field is specified for a contact or lead, users can choose the address when clicking Send an Email. Note that custom email addresses cannot be used for mass emails.

☐ Geolocation
Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.

☐ Number
Allows users to enter any number. Leading zeros are removed.

☐ Percent
Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.

☐ Phone
Allows users to enter any phone number. Automatically formats it as a phone number.

☐ Picklist
Allows users to select a value from a list you define.

☐ Picklist (Multi-Select)
Allows users to select multiple values from a list you define.

☐ Text
Allows users to enter any combination of letters and numbers.

☐ Text Area
Allows users to enter up to 255 characters on separate lines.

☐ Text Area (Long)
Allows users to enter up to 131,072 characters on separate lines.

☐ Text Area (Rich)
Allows users to enter formatted text, add images and links. Up to 131,072 characters on separate lines.

Step 6: Similarly. Repeat steps 4 and 5 to add more fields like Phone, Date of Birth. This is how the custom object will have the various fields.

The screenshot shows the Salesforce Setup interface for the 'Student_Detail' custom object. The 'Fields & Relationships' section is active, displaying a list of 6 fields sorted by label. The fields are:

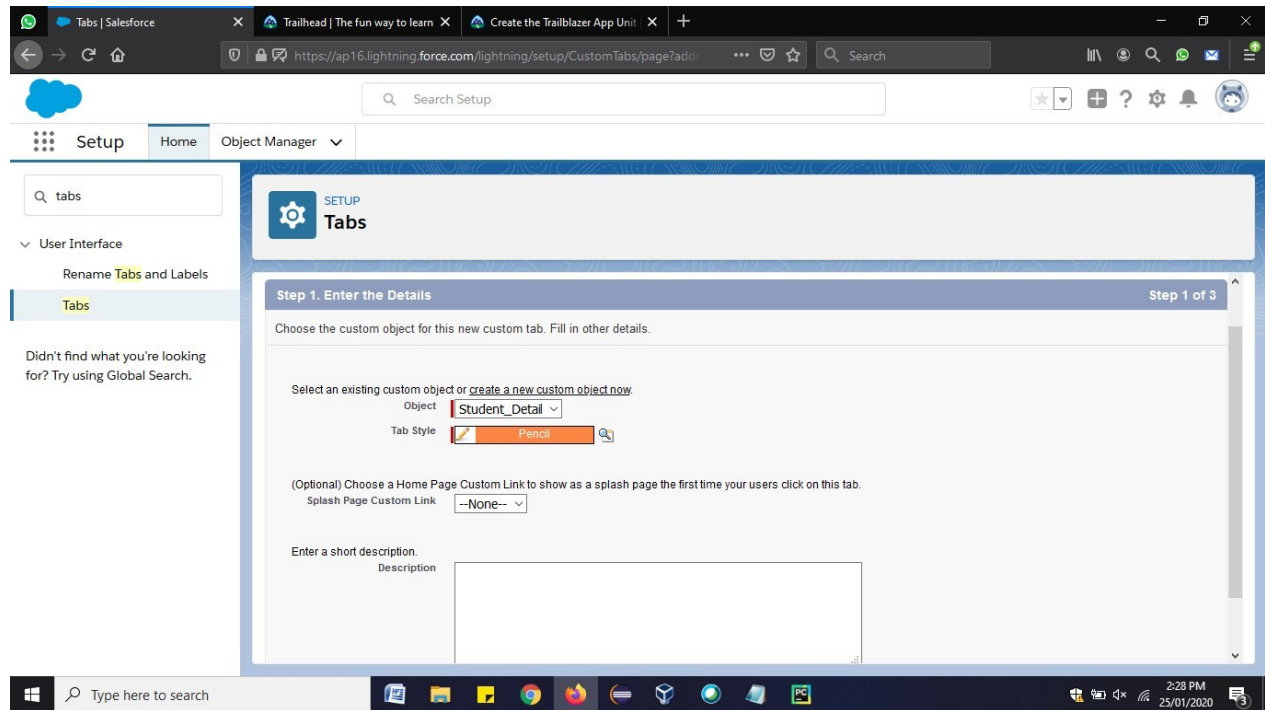
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Contact	Contact__c	Phone		
Created By	CreatedById	Lookup(User)		
EmailID	EmailID__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Student_Detail Name	Name	Text(80)		✓

Step 7: Now go to Home => search for “Tabs”. Click on New.

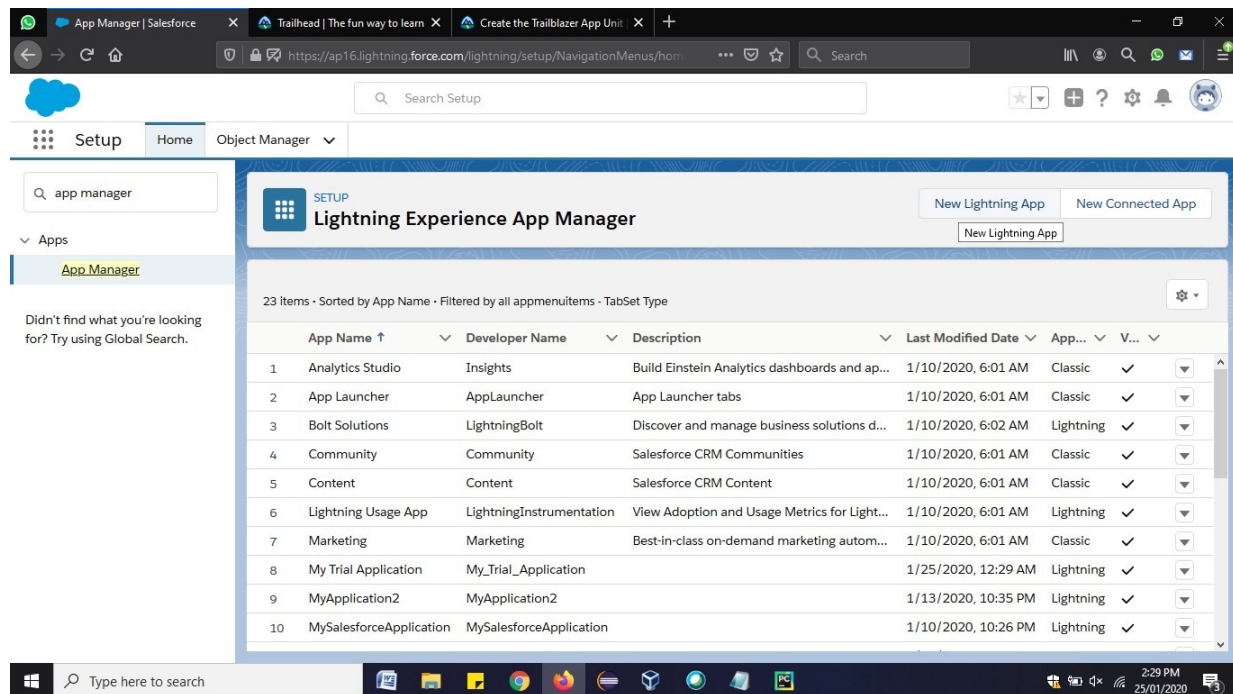
The screenshot shows the Salesforce Setup interface for the 'Custom Tabs' section. The 'Custom Object Tabs' table is displayed, showing the following tabs:

Action	Label	Tab Style	Description
Edit Del	Comments	Guitar	
Edit Del	Names	Pencil	Enter your name
Edit Del	Student_Names	Star	
Edit Del	StudentDetails	Gears	
Edit Del	xyz	Cell phone	

Step 8: Enter the Object name and select any icon for tab style. Leave all defaults as it is. Click **Next**, **Next**, and **Save**.



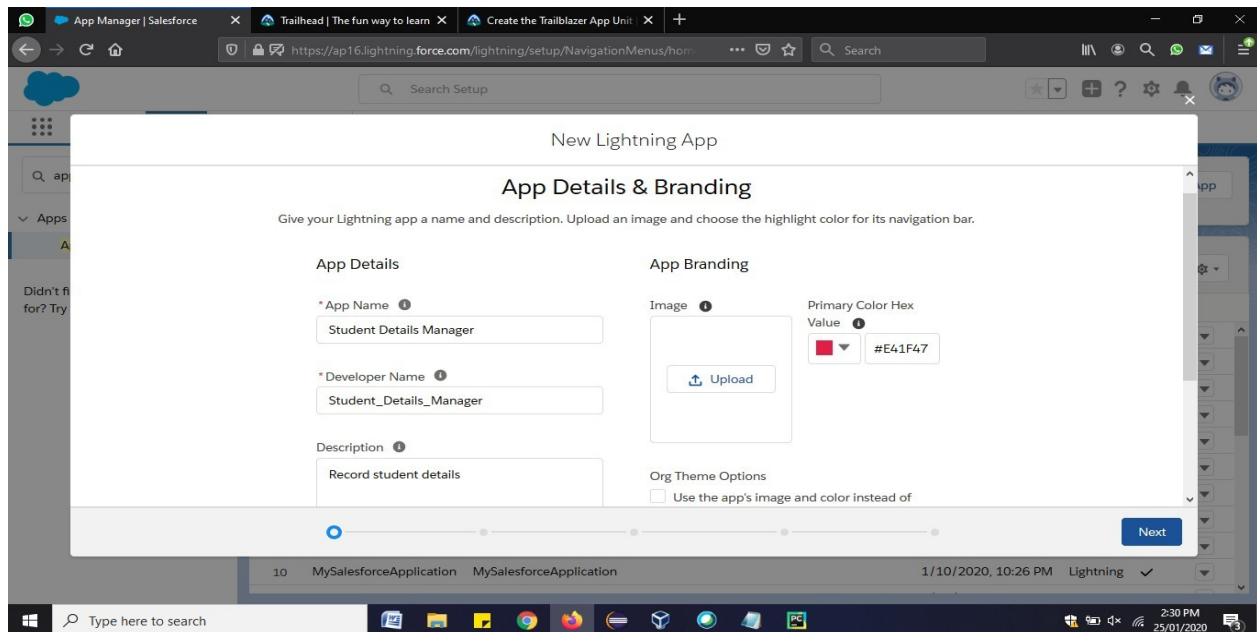
Step 9: In Setup, click **Home**. Enter “App Manager” in Quick Find and select **App Manager**. Click **New Lightning App**.



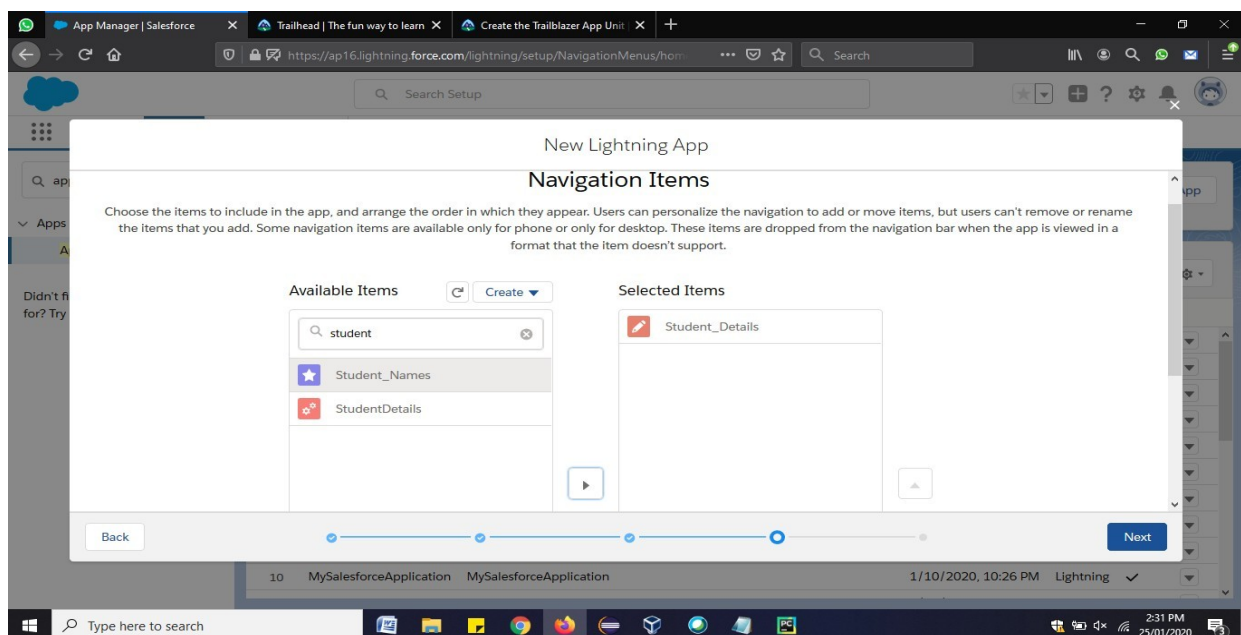
Step 10: Define the new Lightning app as follows:

App Name: Student Details Manager

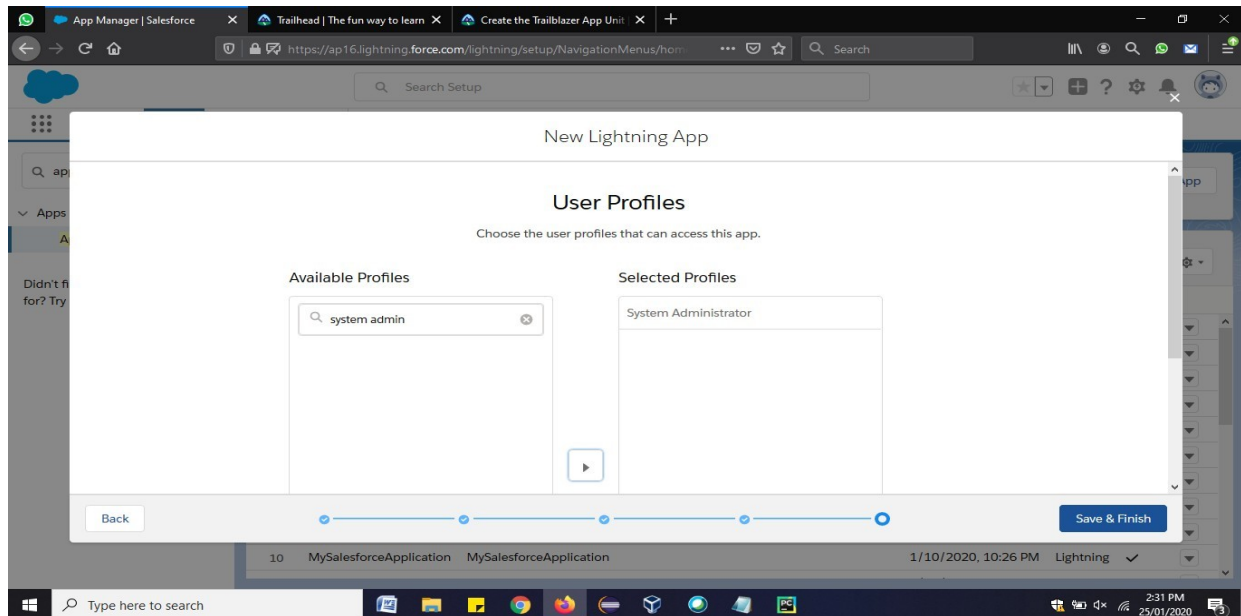
Developer Name: Student_Details_Manager. Click **Next**.



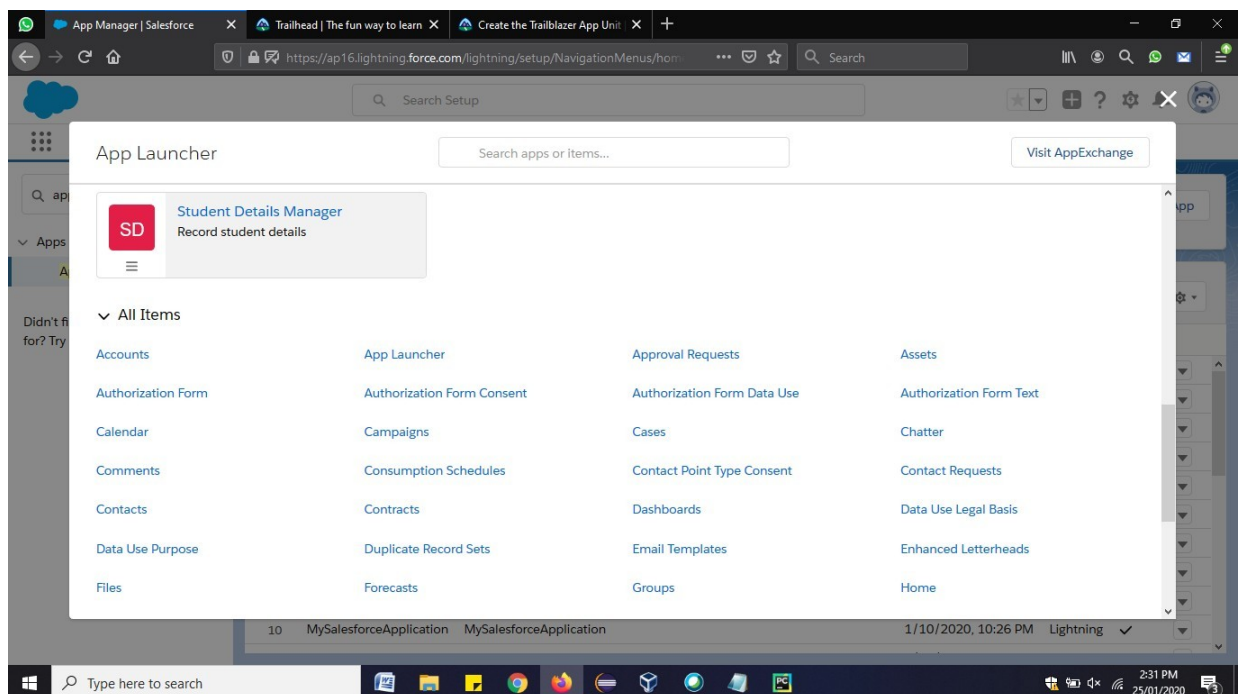
Step 11: On the App Options screen, leave the defaults as is and click **Next**. On the Utility Items screen, leave the defaults as is and click **Next**. On the Navigation Items screen, select **Student_Detail** and move them to the Selected Items box. Then click **Next**.

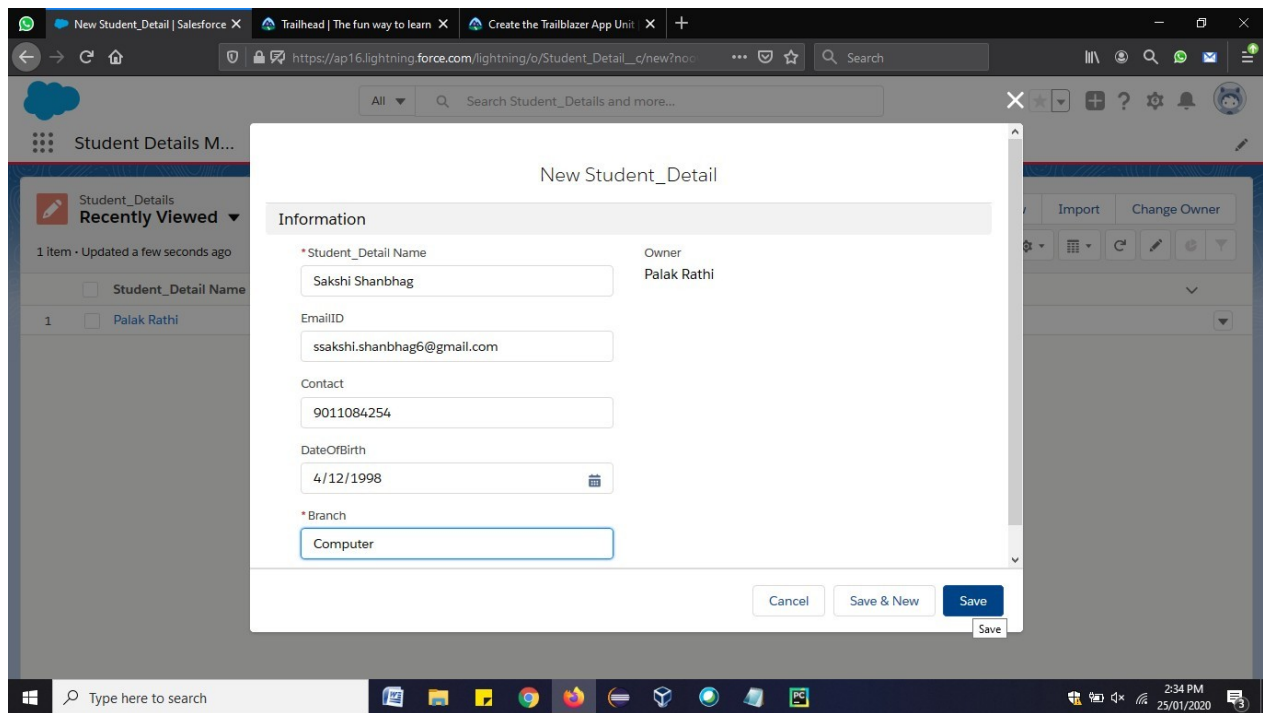


Step 12: On the Assign to User Profiles screen, select **System Administrator** and move it to Selected Profiles. Then click **Save & Finish**.

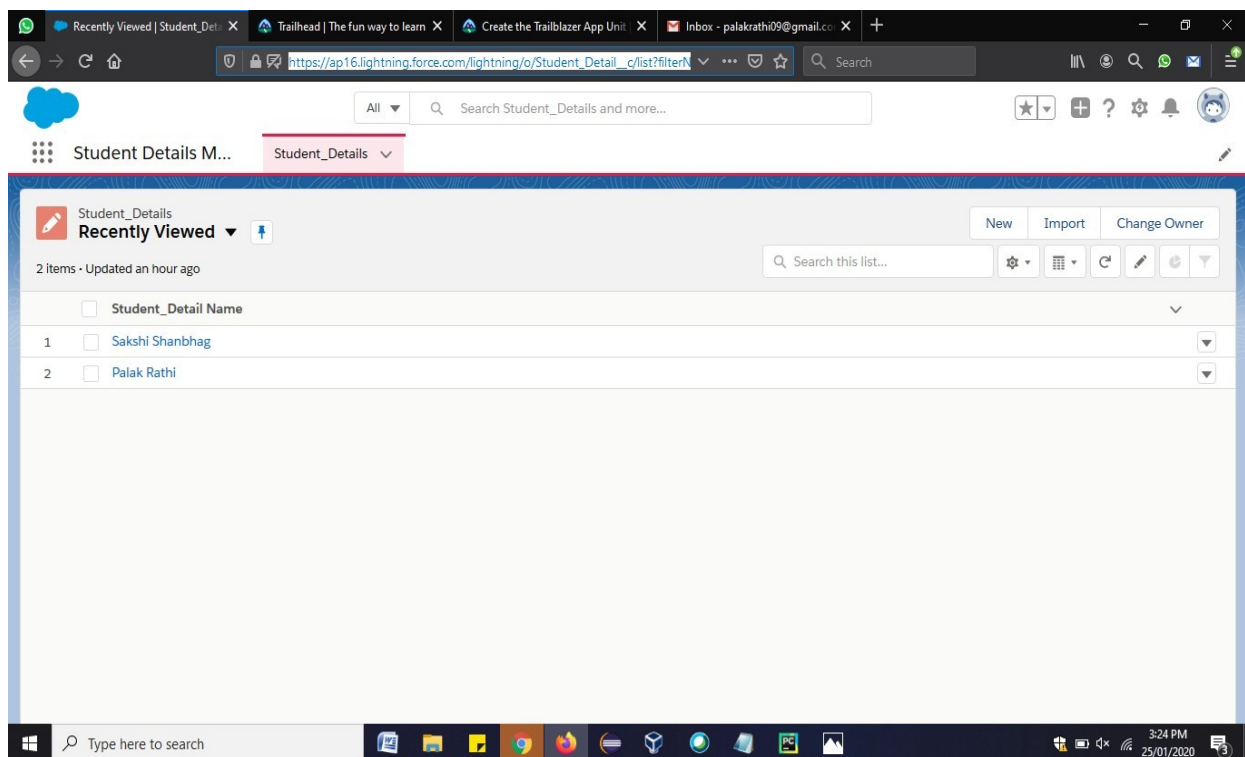


Step 13: Click on App launcher and Open the custom application created.

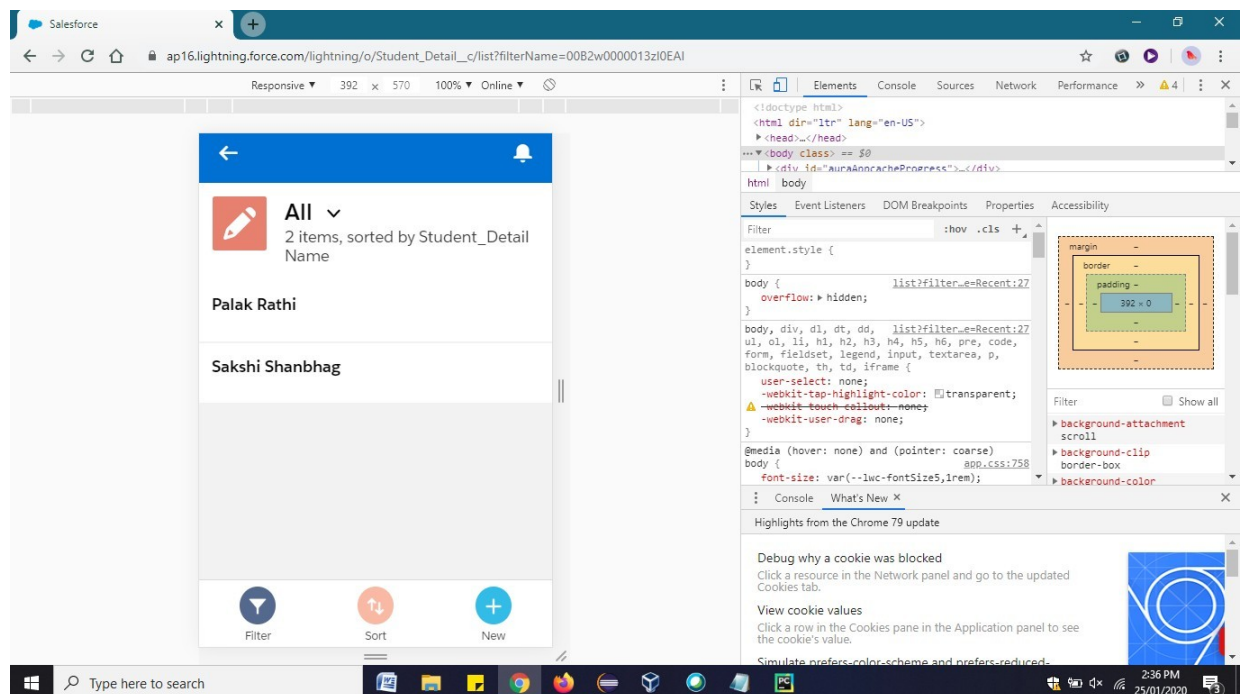
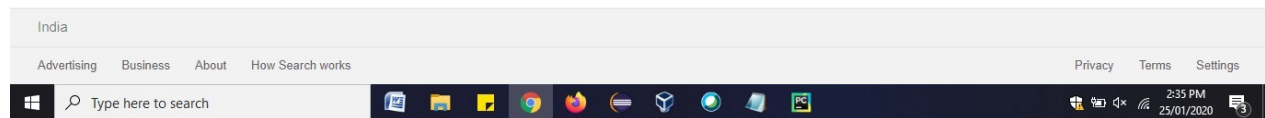
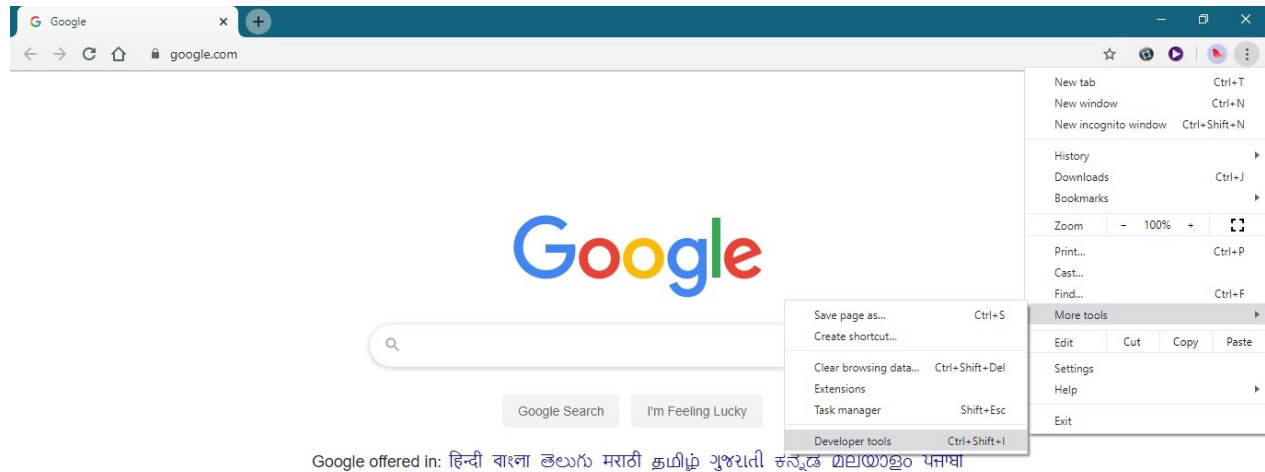


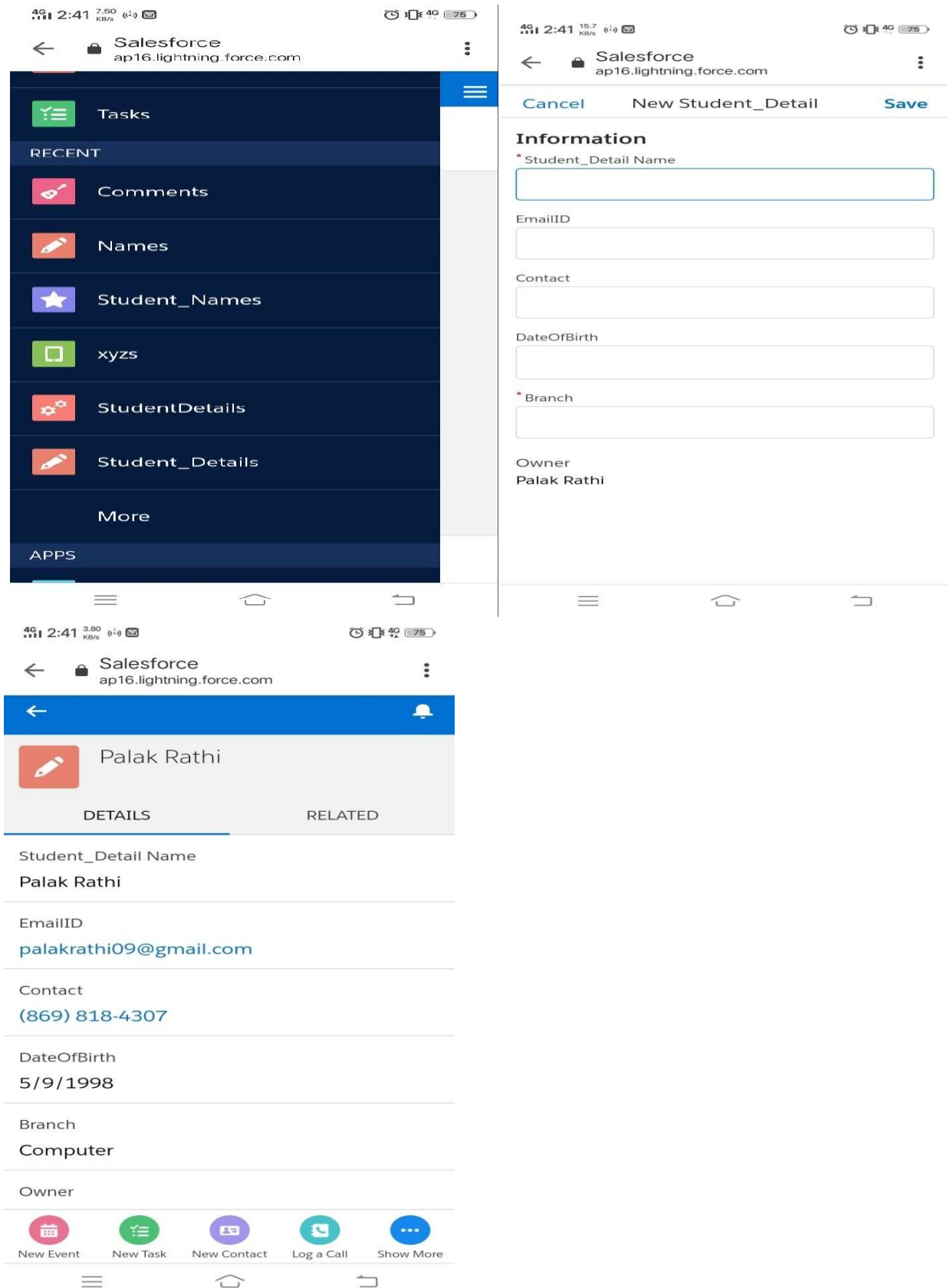


Step 14: Click on Student_Details => New => fill the specified details and copy the URL.



Step 15: Open Google Chrome new Tab => More Tools => Developer Tools and then paste the URL of the application, copied in the previous step.





Conclusion: We have learnt to create custom application using salesforce Lightning platform.