PROJECT REPORT

SALESFORCE PROJECT READY
Entry Level Training & Professional Development Program

PROJECT TITLE - COLLEGE MANAGEMENT APPLICATION

PROJECT REPORT

Day 1 :

Topic: Introduction to the course, Cloud Computing Basics, Service Models (IaaS, PaaS, SaaS), Salesforce basics and opportunities, Introduction to objects, fields, relationships. Types of Sandbox (Developer, Developer Pro, Partial, Full), Project specification and allocation of work.

Milestone / Activities: Create Your Salesforce Developer Org To Get Started.Creating Developer Account, Account Activation, Login To Your Salesforce Account.

Detailed Description:

Creating a developer org in salesforce

Go to developers.salesforce.com/

1. Click on sign up.
2. 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

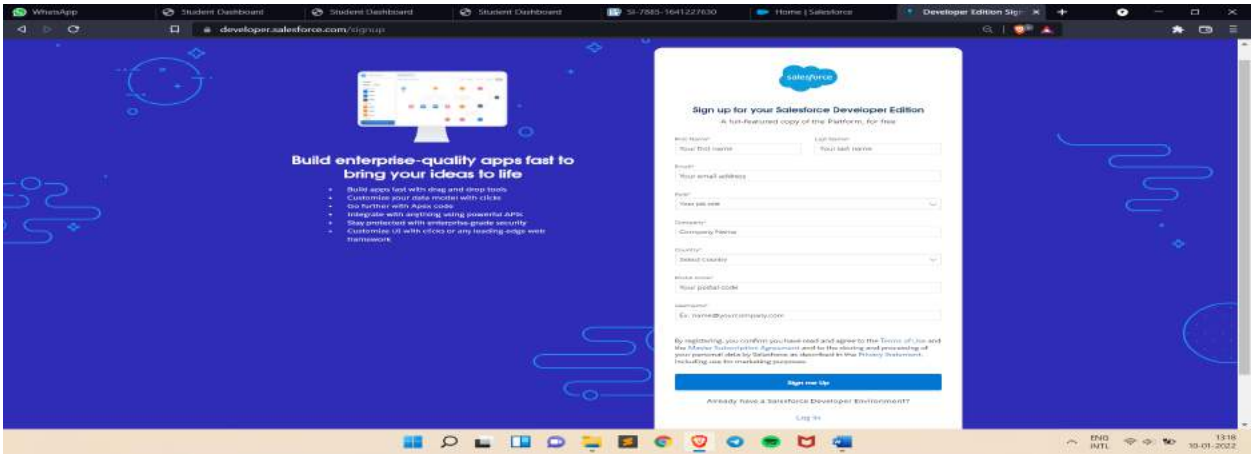
Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins, as allocating a developer org will take time.

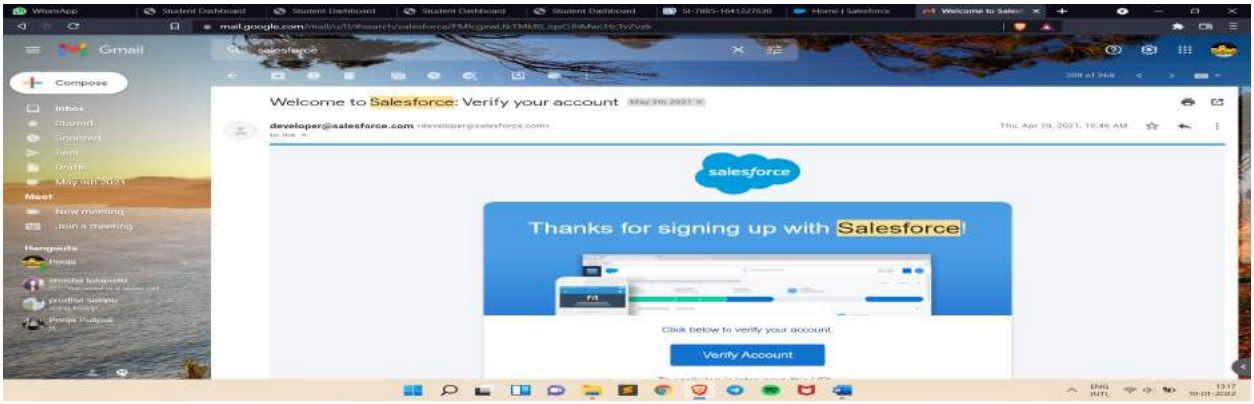
Login To Your Salesforce Account

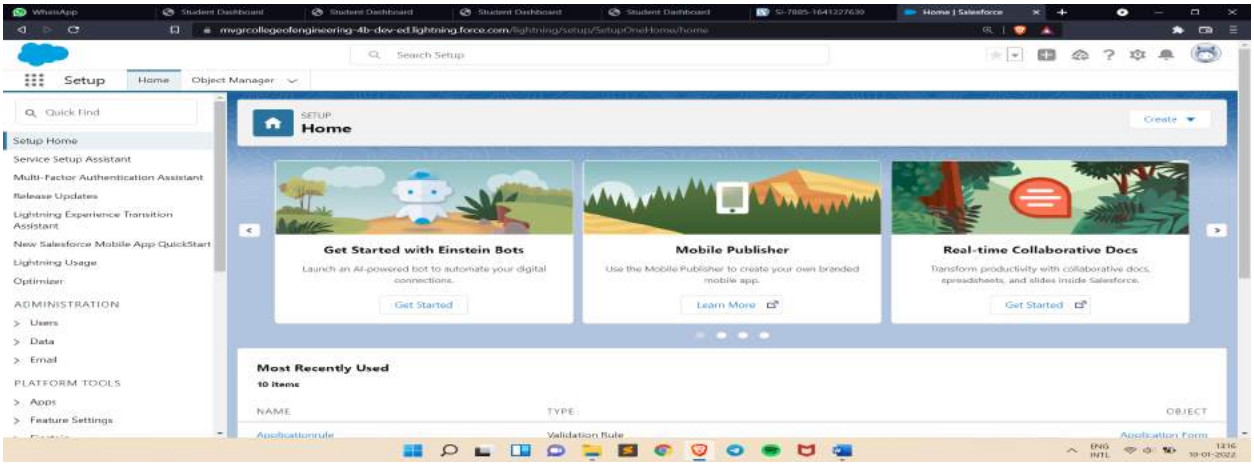
1.Go to salesforce.com and click on login.
2.Enter the username and password that you just created.
3.After login this is the home page which you will see.

PROJECT REPORT

Upload the Screenshot the Milestone / Activities :







PROJECT REPORT

Day 2 :

Topic: Custom Objects and their creation, Adding business logic to the application.

Milestone / Activities: Create The Custom Objects For The Application, Create Fields On College Object, Create Fields On Application Form Object, Create Fields On Student Object, Create Fields On Subject Object. Creating Global Picklist Value Sets, Creating Field Dependencies.

Detailed Description:

Creating custom objects

Go to the object manager tab and click it. There we can create custom objects by clicking new custom object. For all the four objects ie. College, Application Form, Student and Subject, create them as objects with given labels. The Next step is to create respective fields for all the four custom objects with some data. Creating fields involve data types to be chosen and can also choose whether the field is meant to be required.

Setting global picklist values

Global picklist values can be added to any objects. Edit button is used and picklist type data is chosen and values can be added.

Creating field dependencies

In object manager, click on objects and go to field dependencies for creating field dependencies. Create field dependency between the college Name and Email, where the controlling field is the college Name and dependent field is Email. Select the email ids according to the college names. Create field dependency between college Name and capacity of students, where the controlling field is college Name and dependant field is Capacity of Students. Select the values according to your wish.

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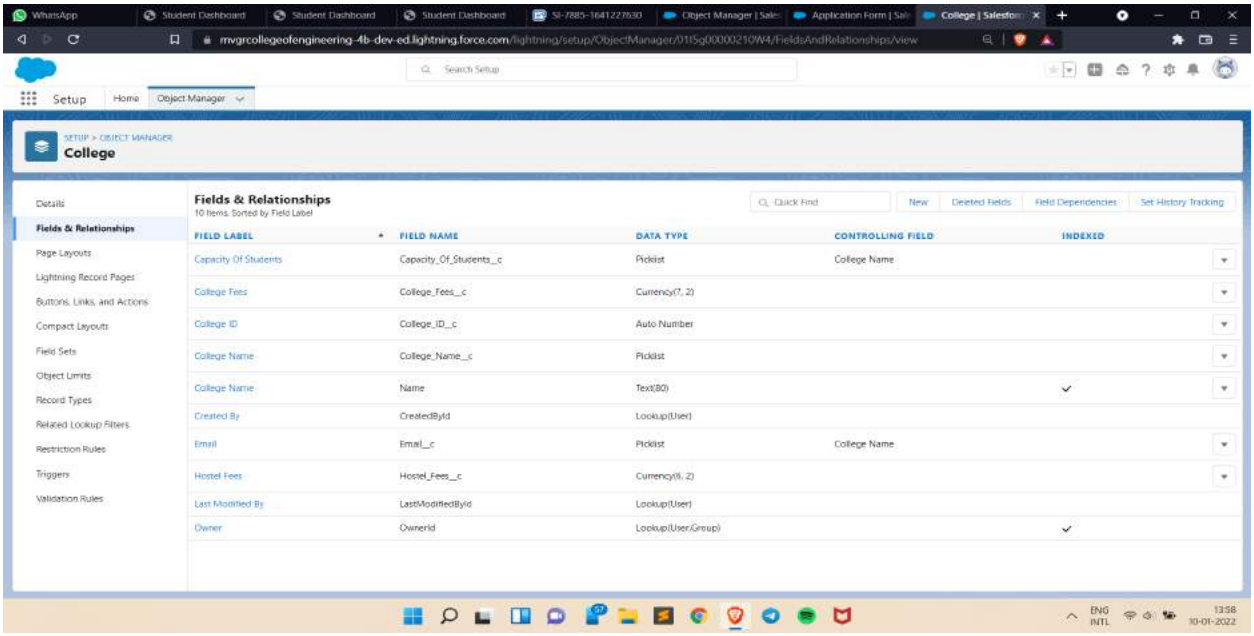

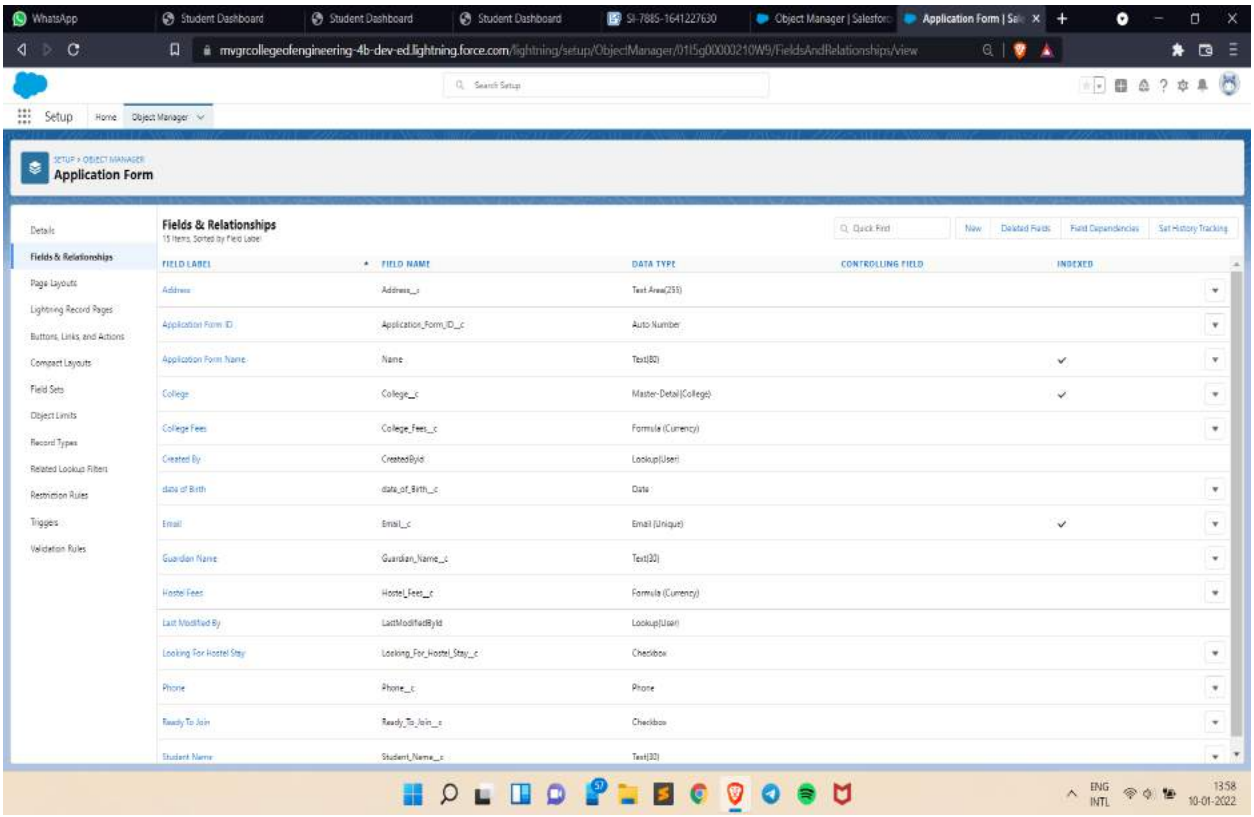

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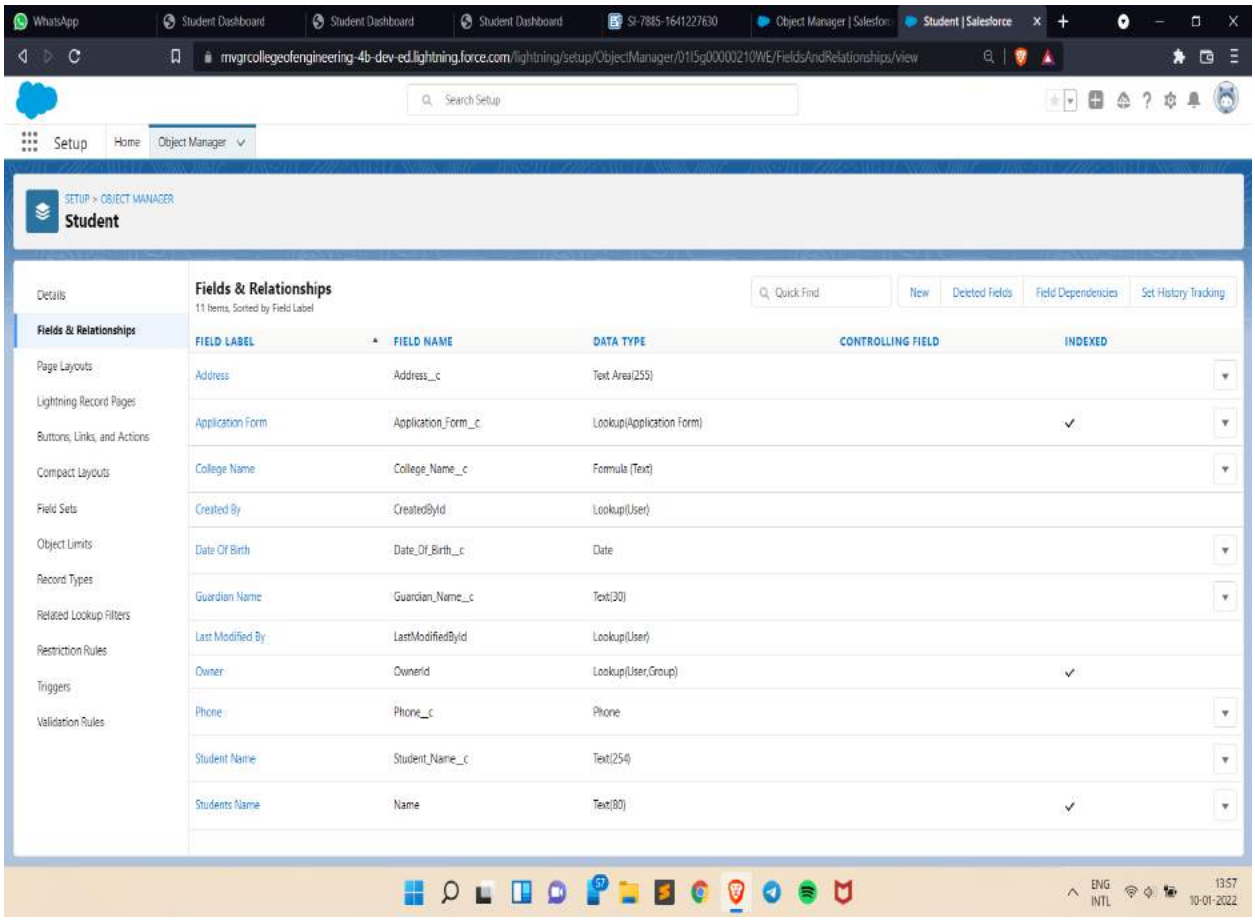

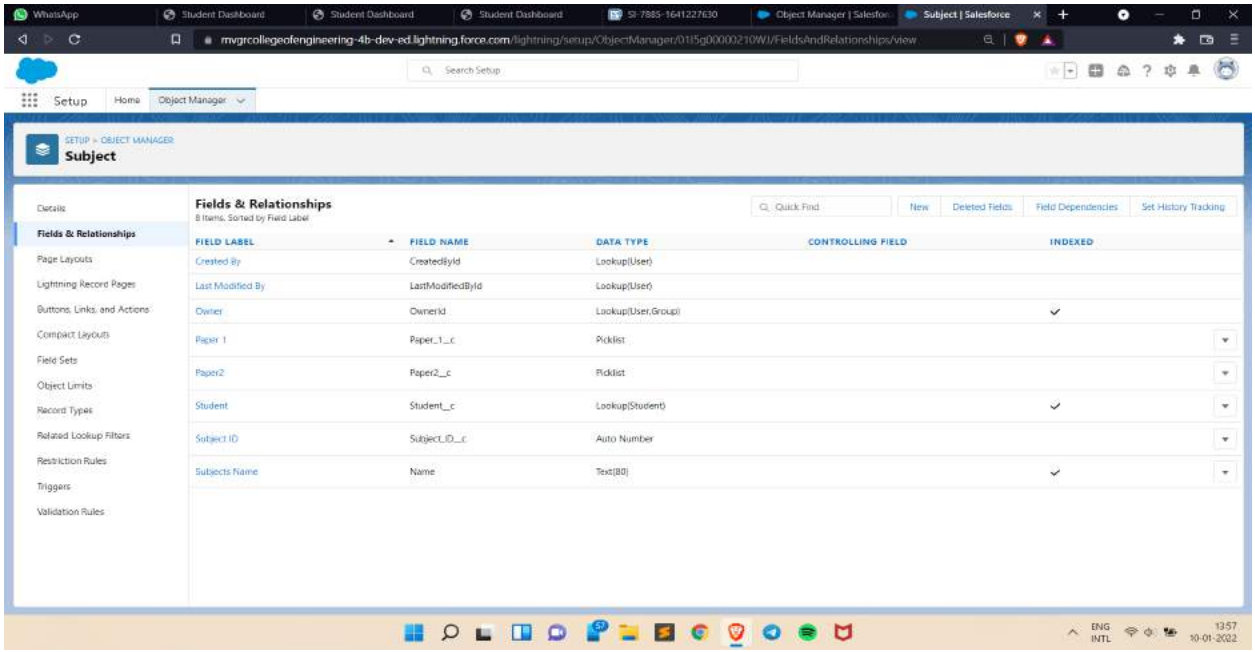

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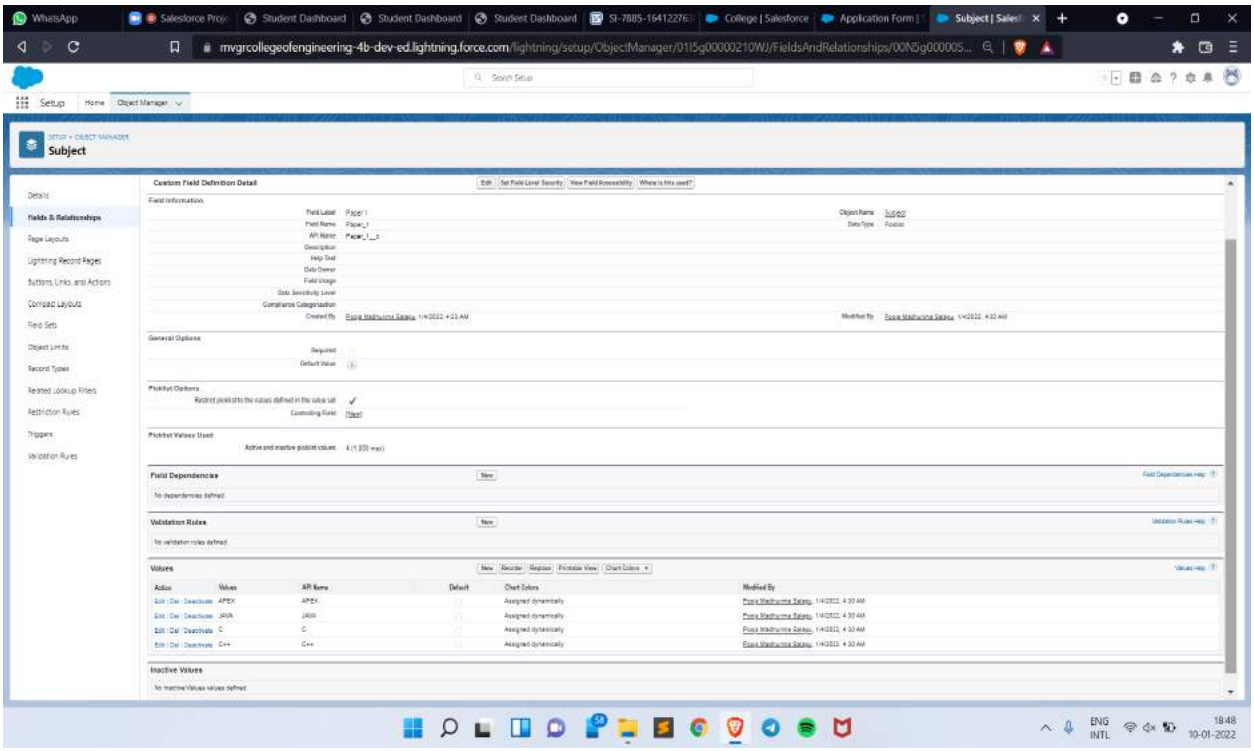

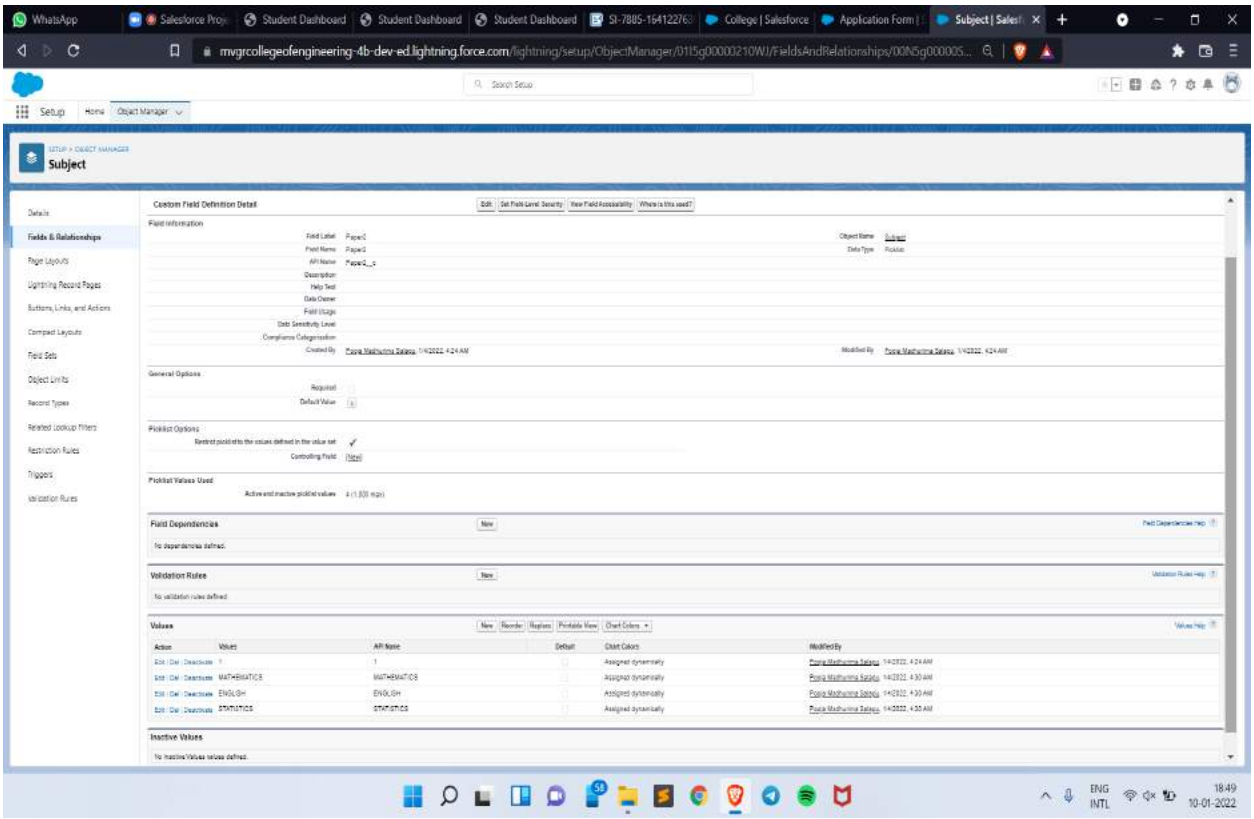

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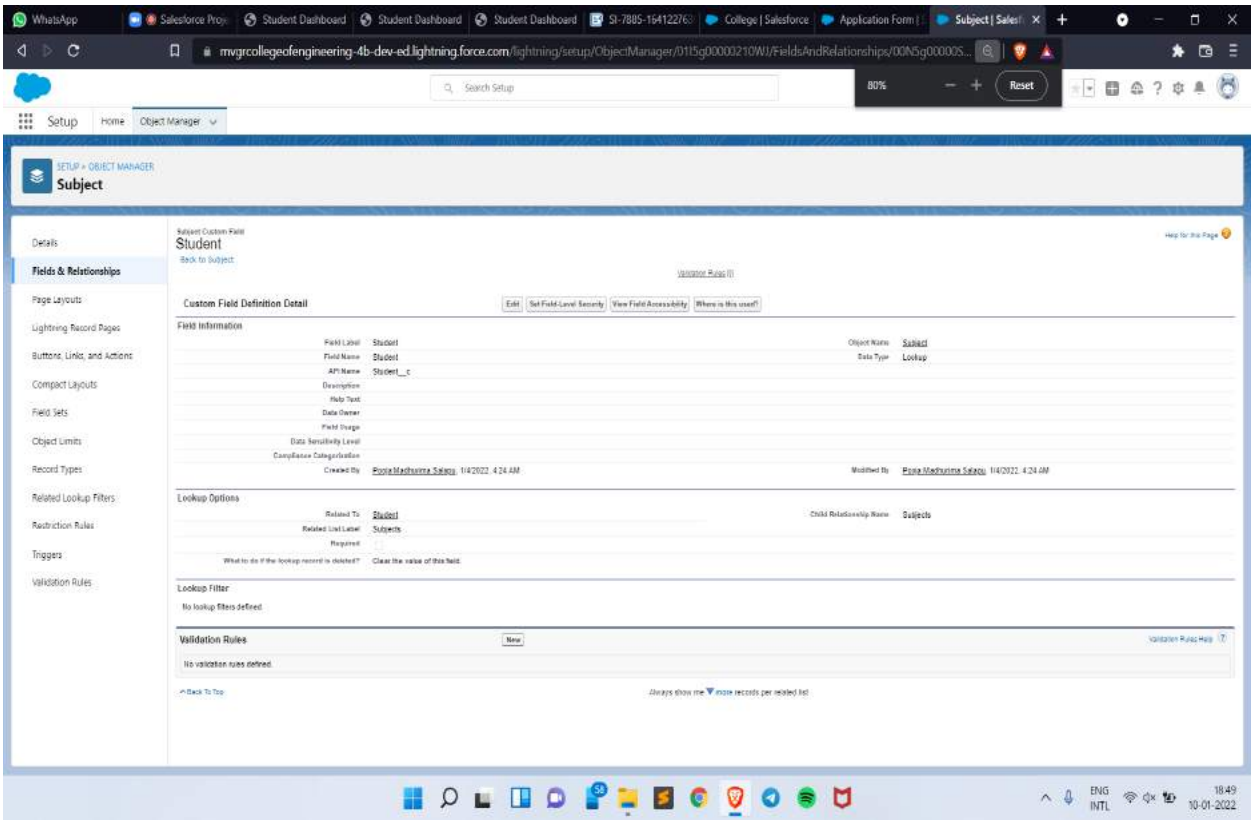

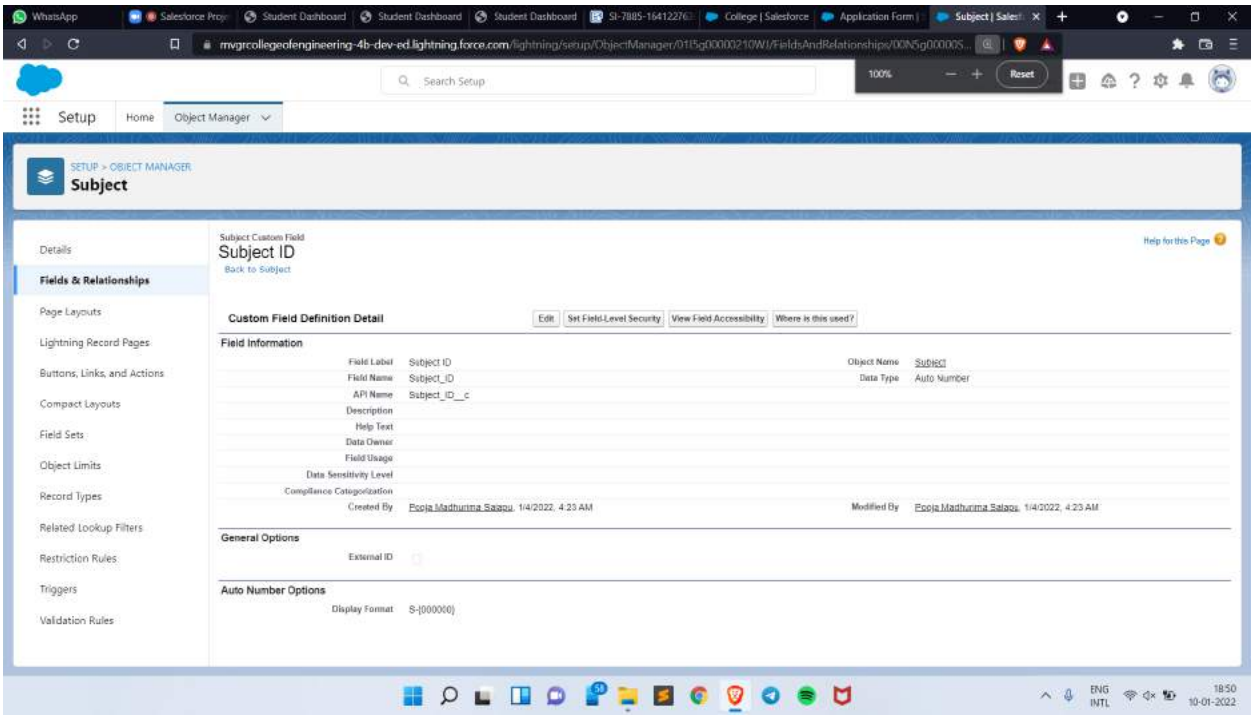

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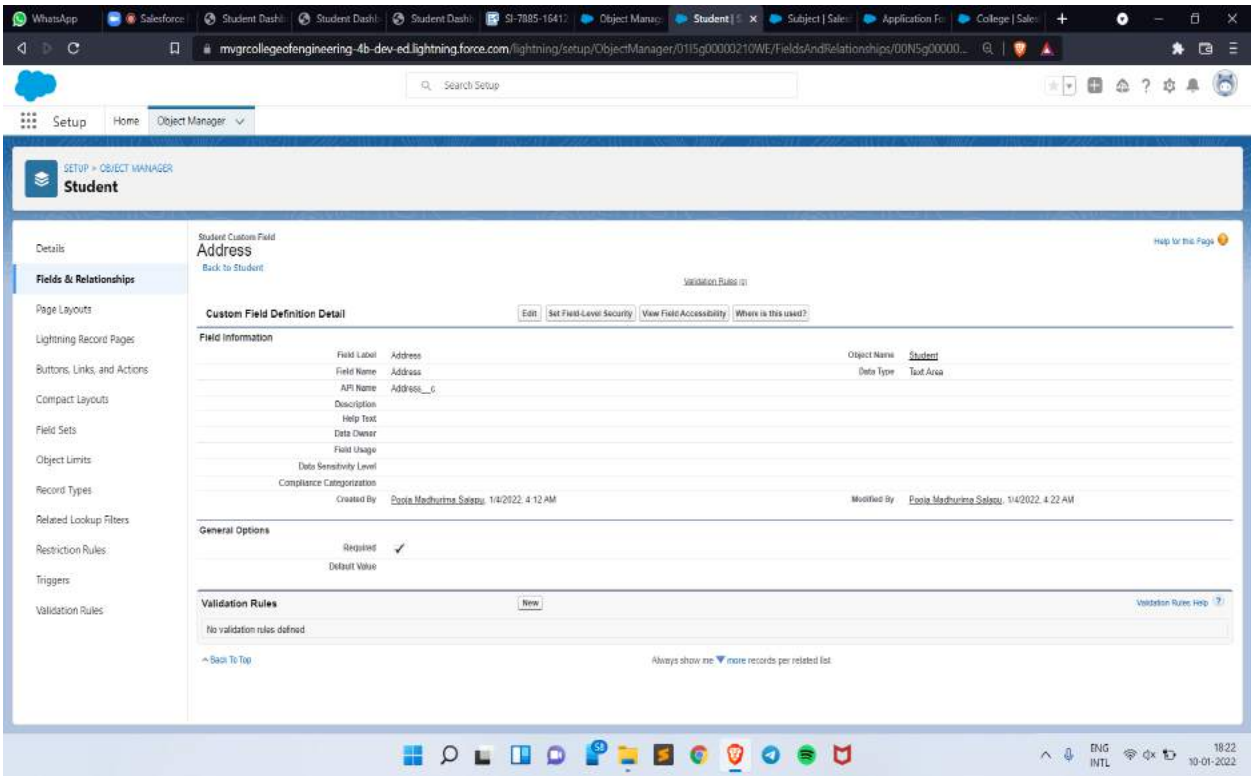

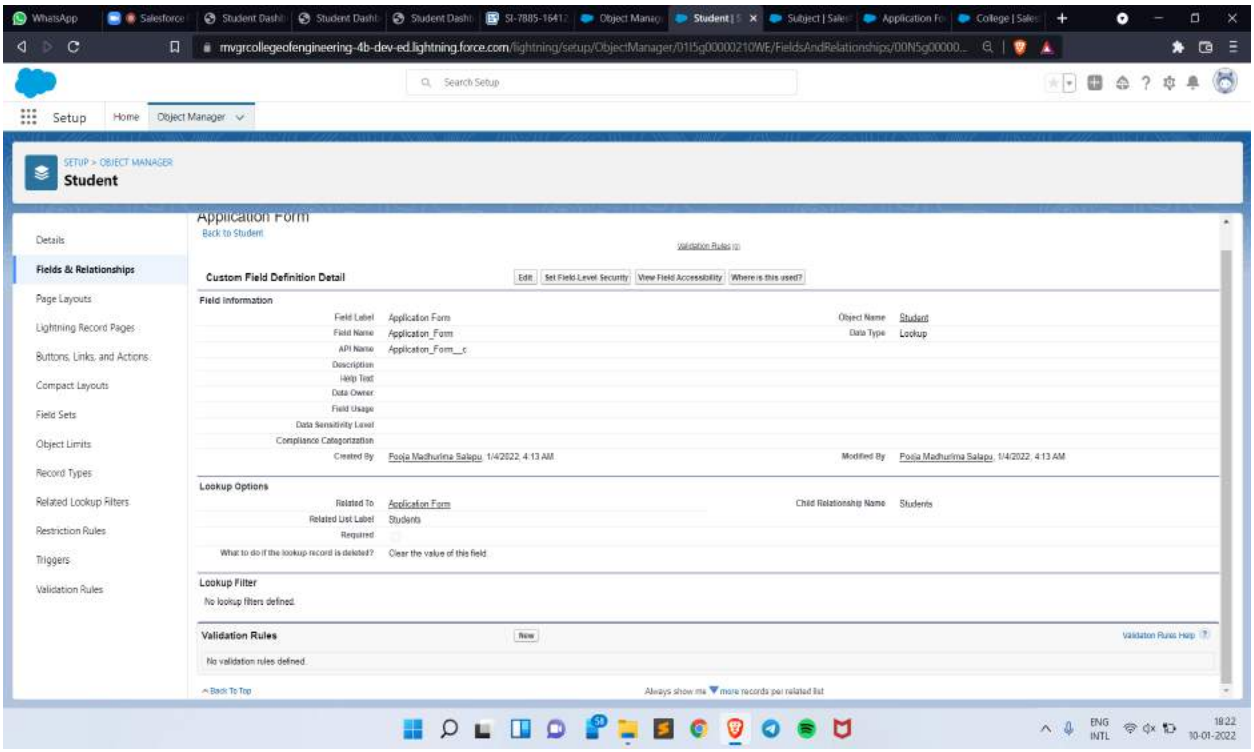

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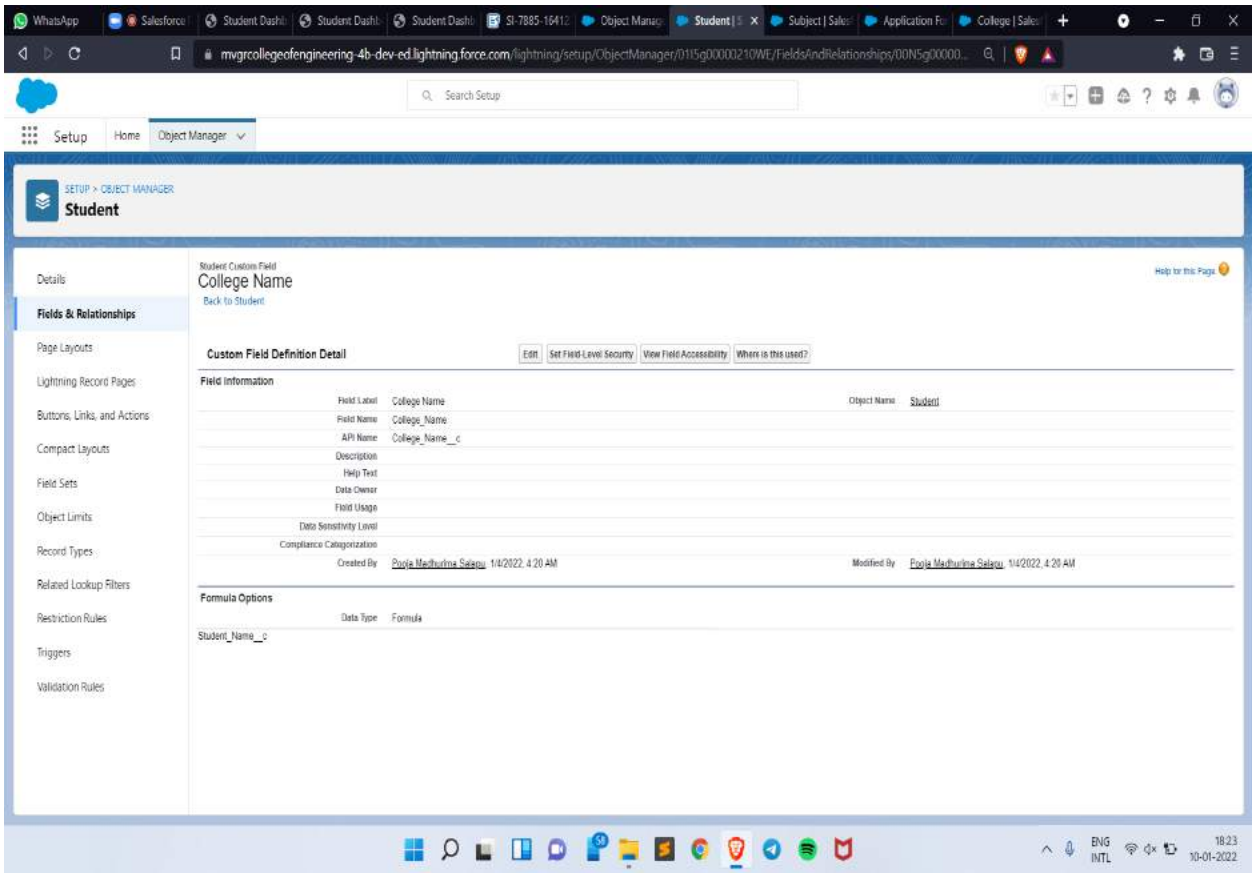

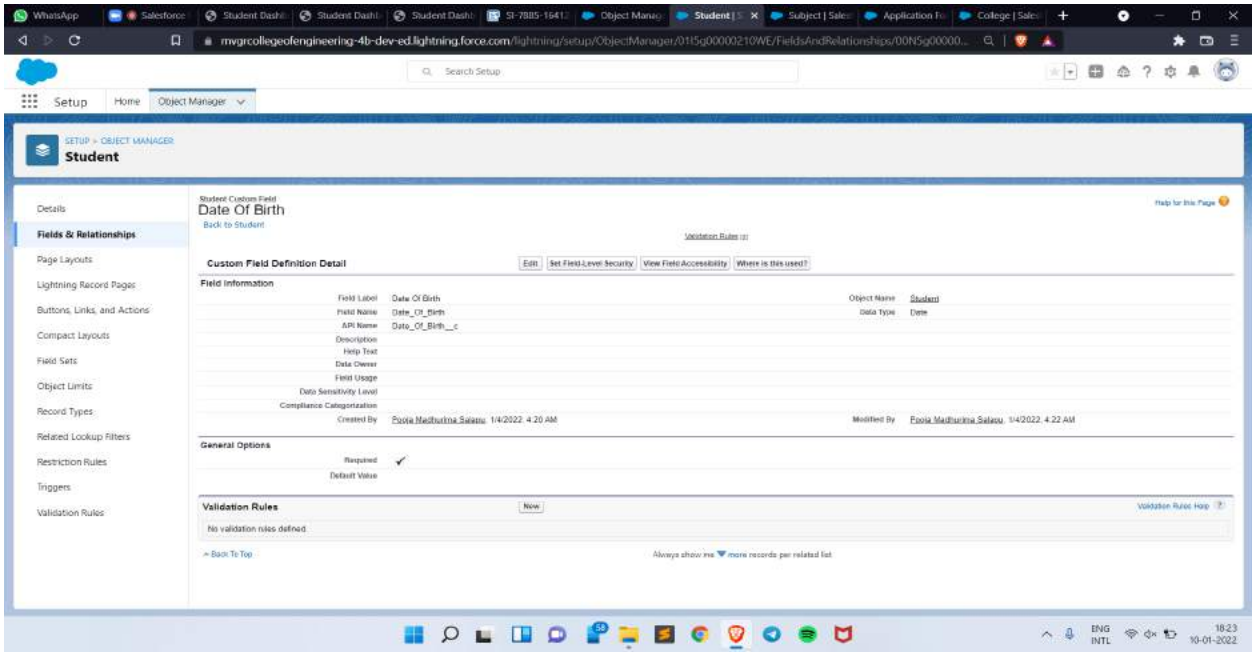

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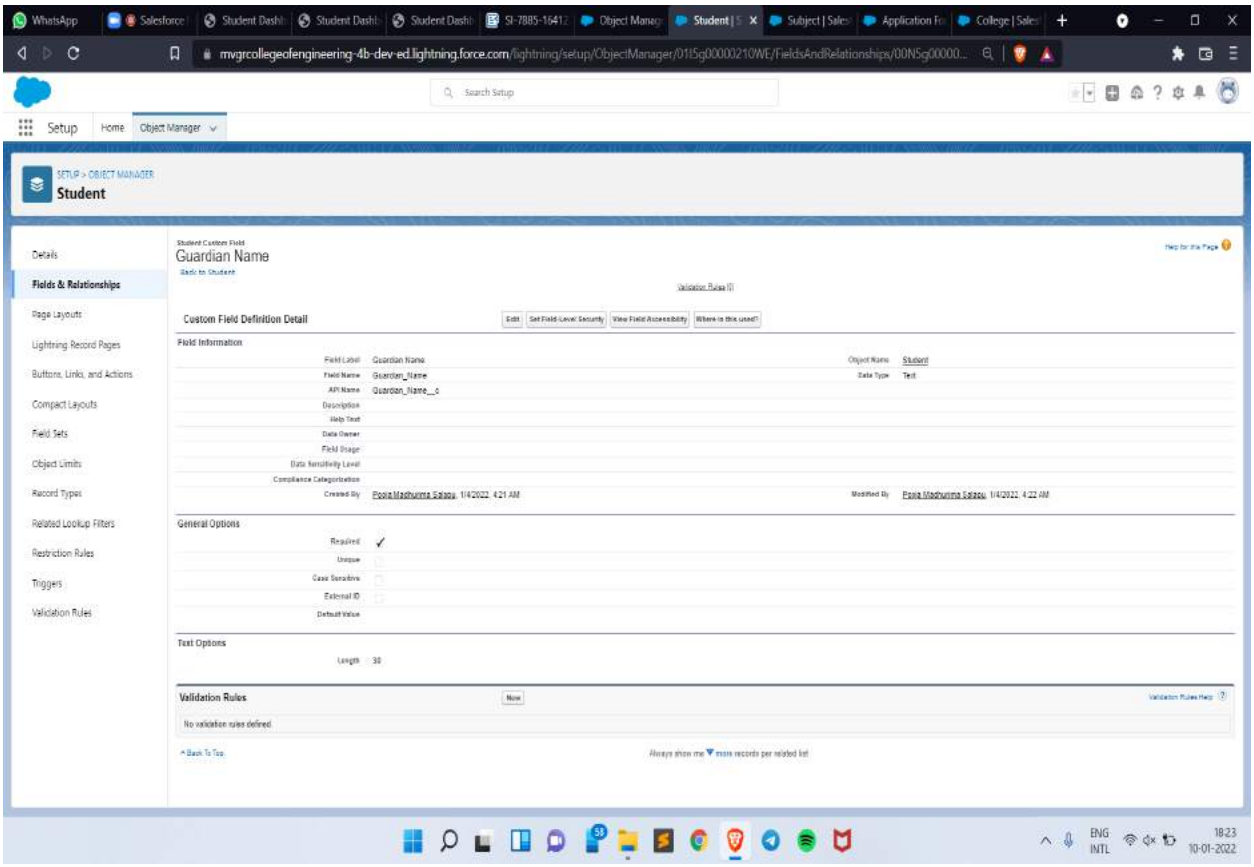

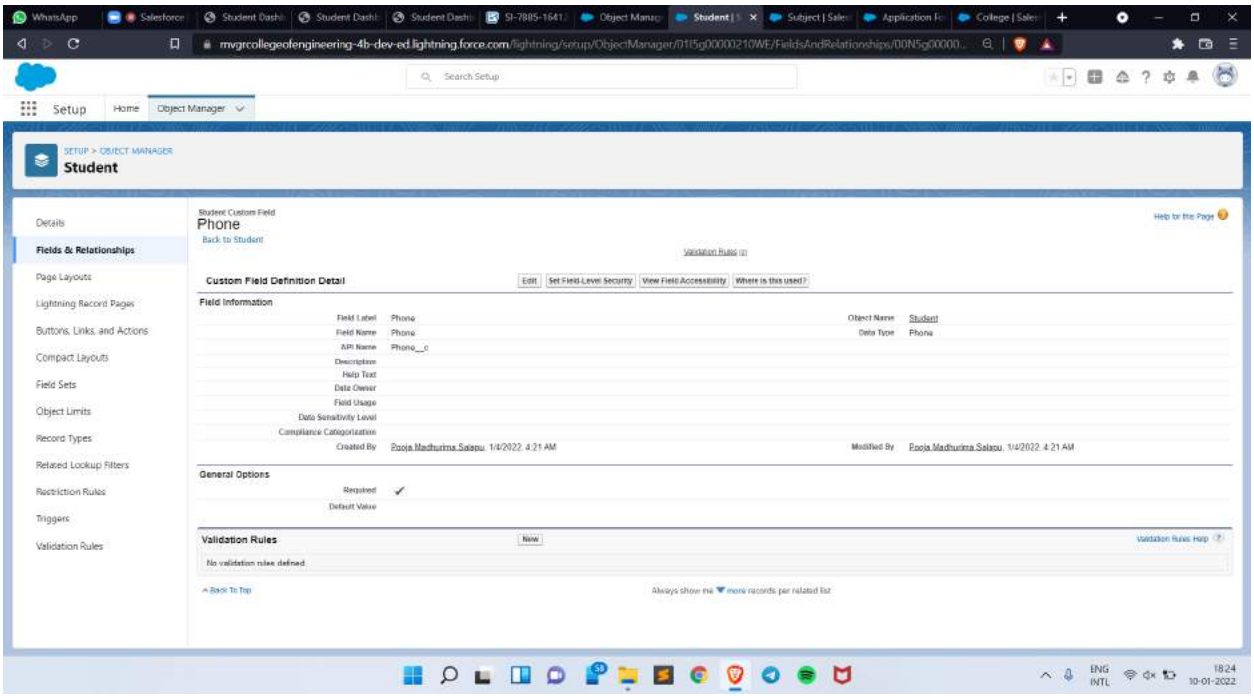

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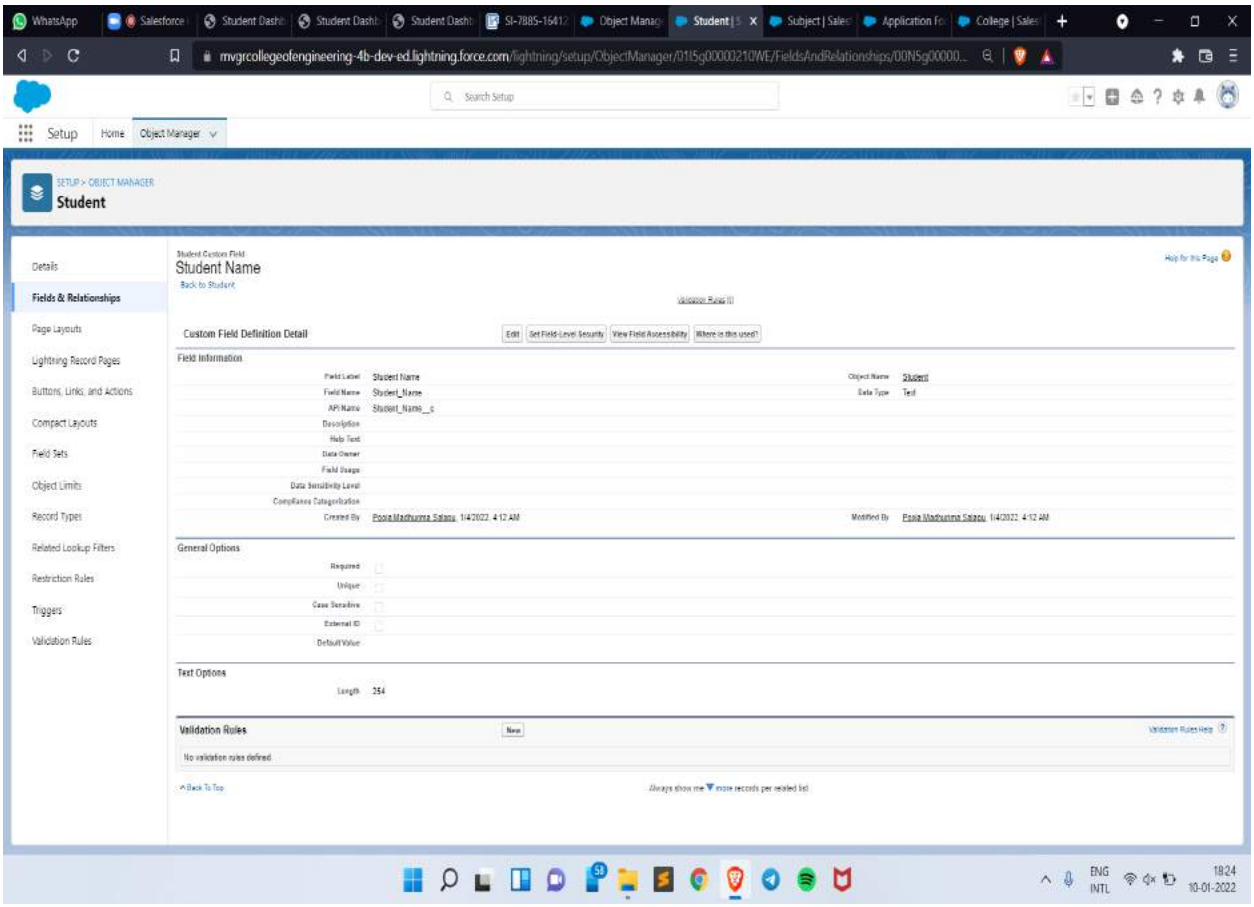

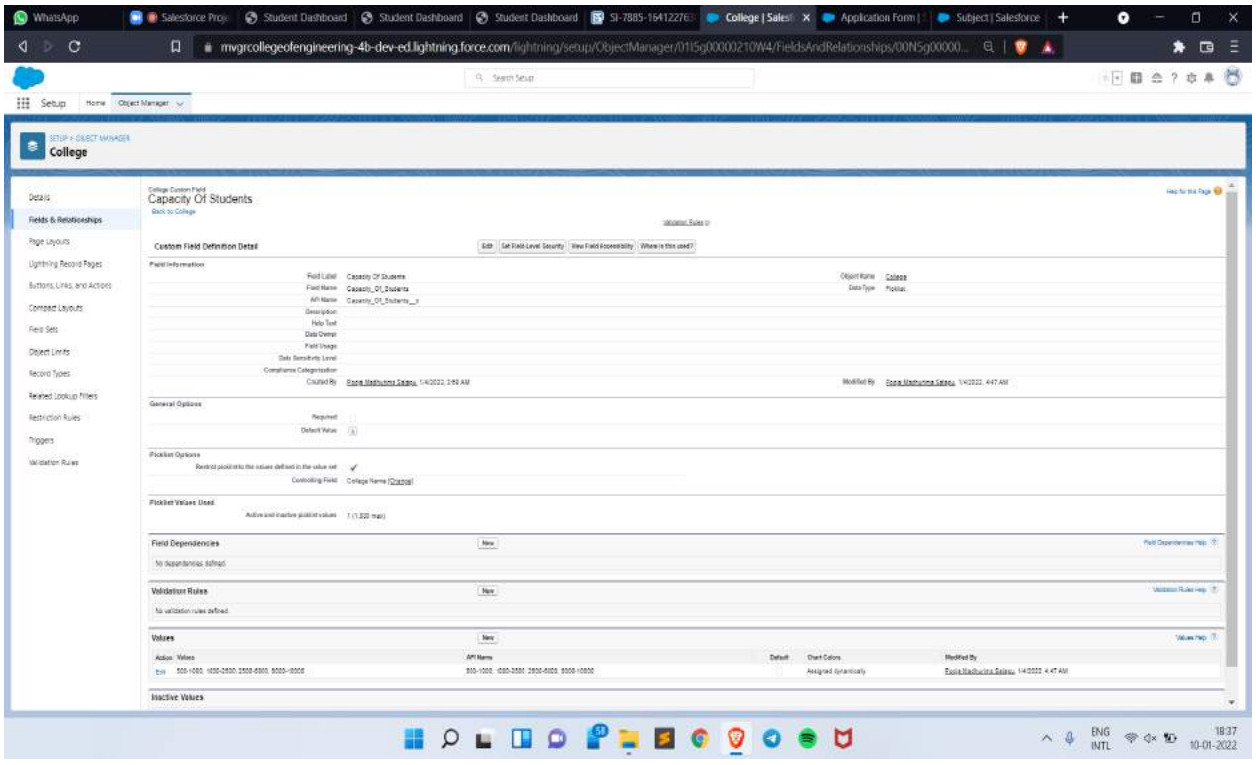

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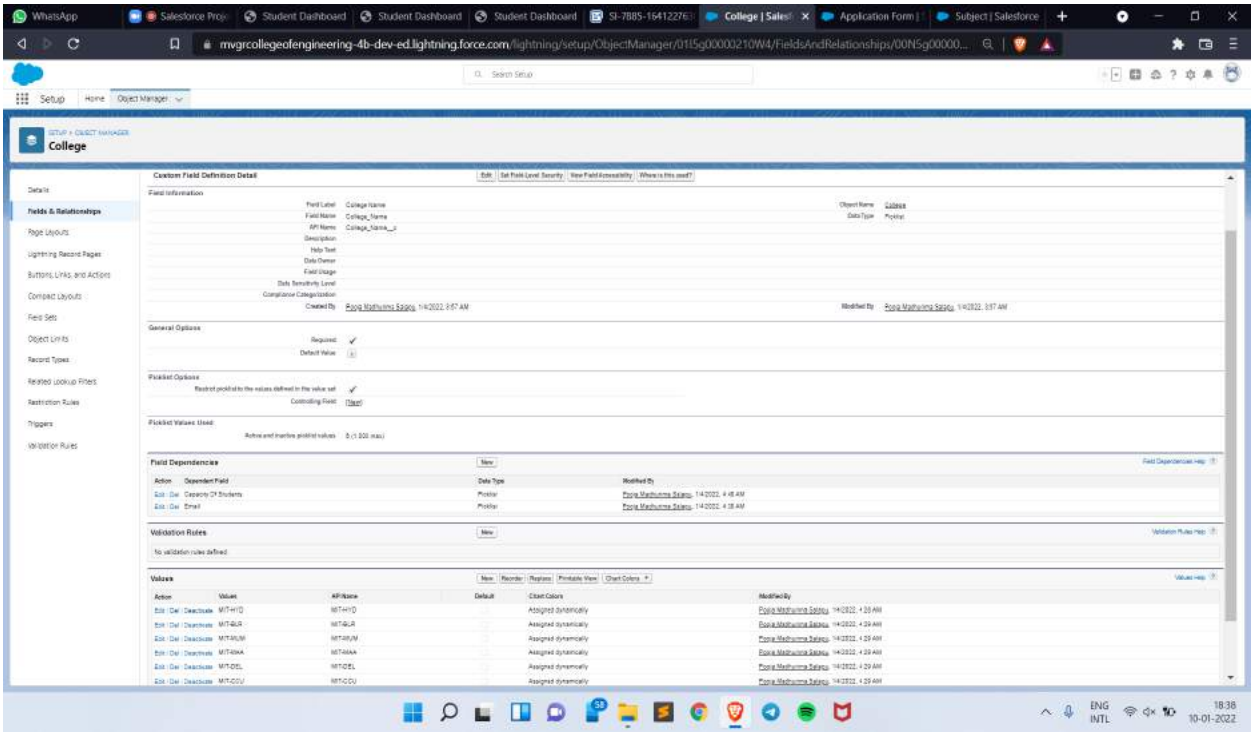

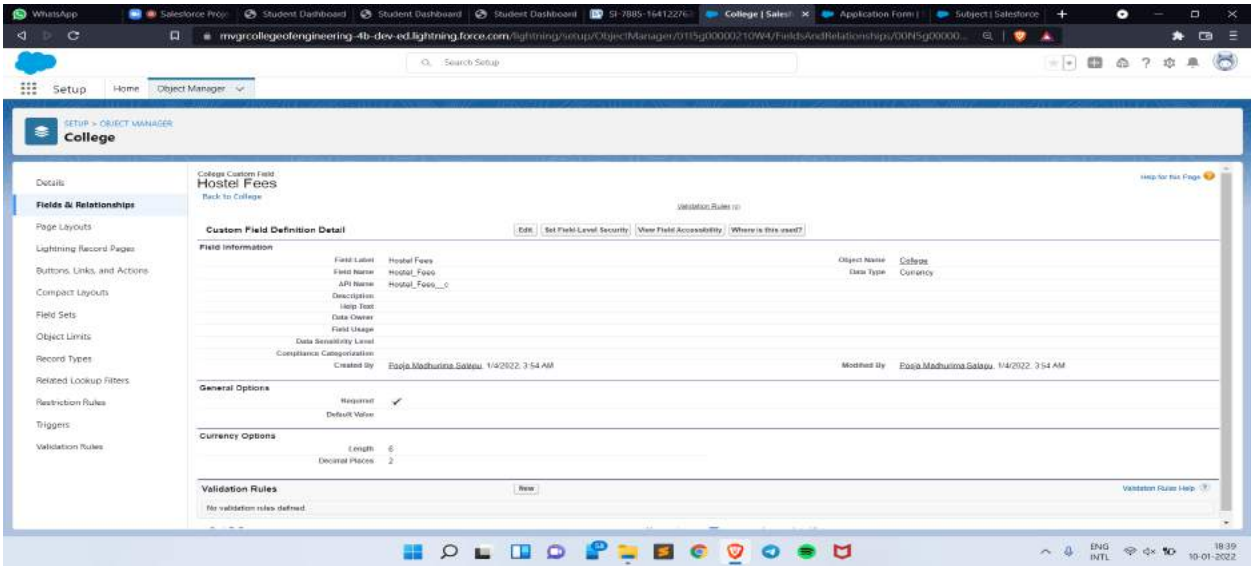

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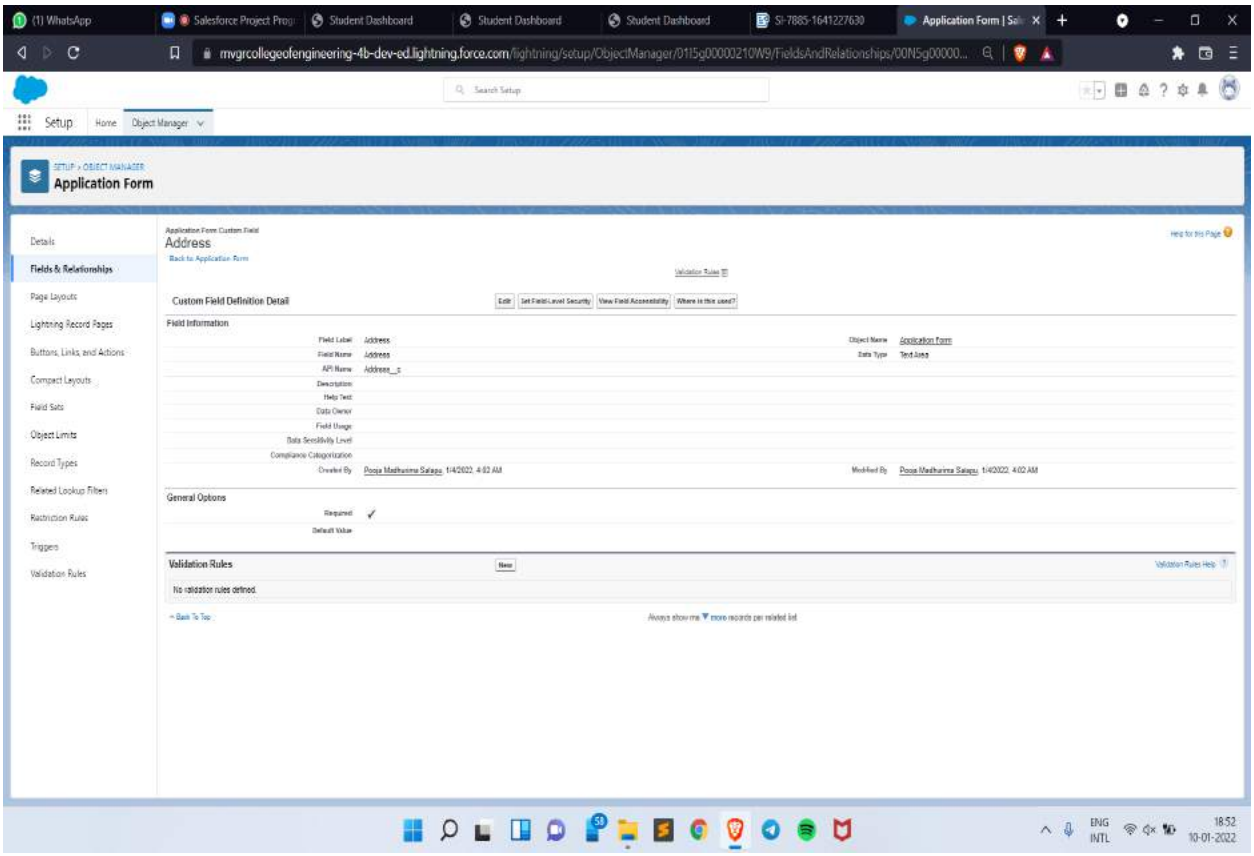

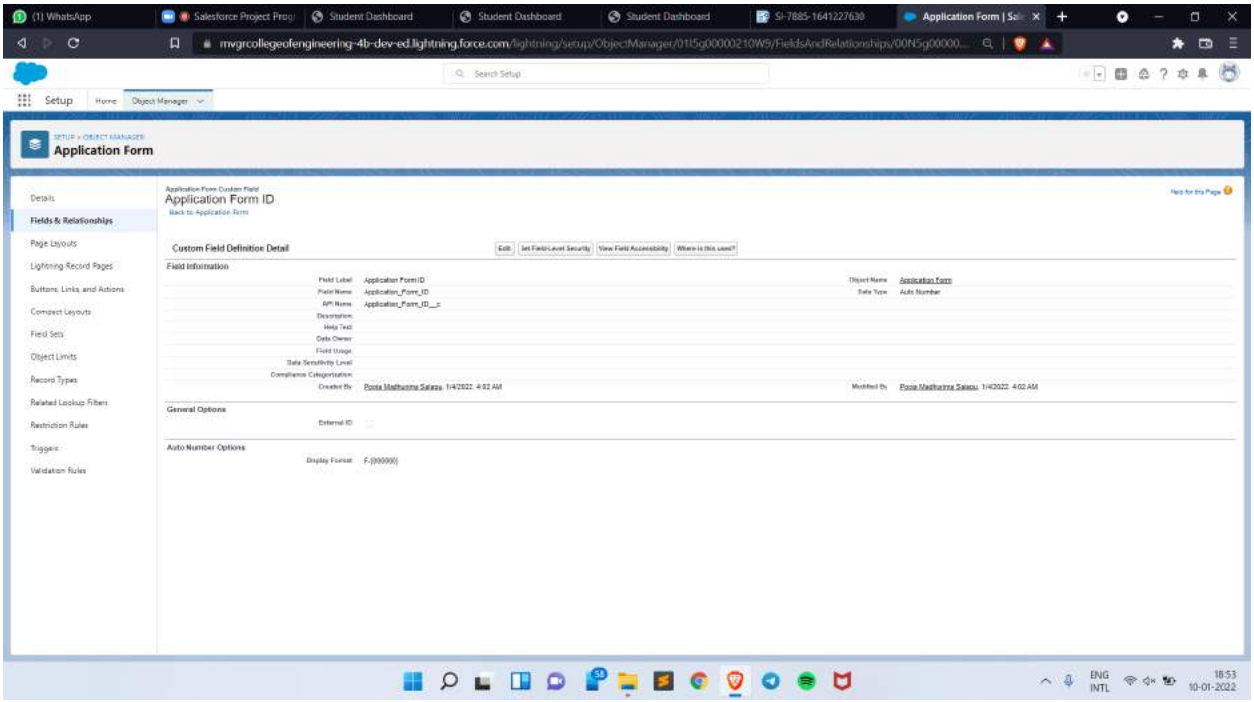

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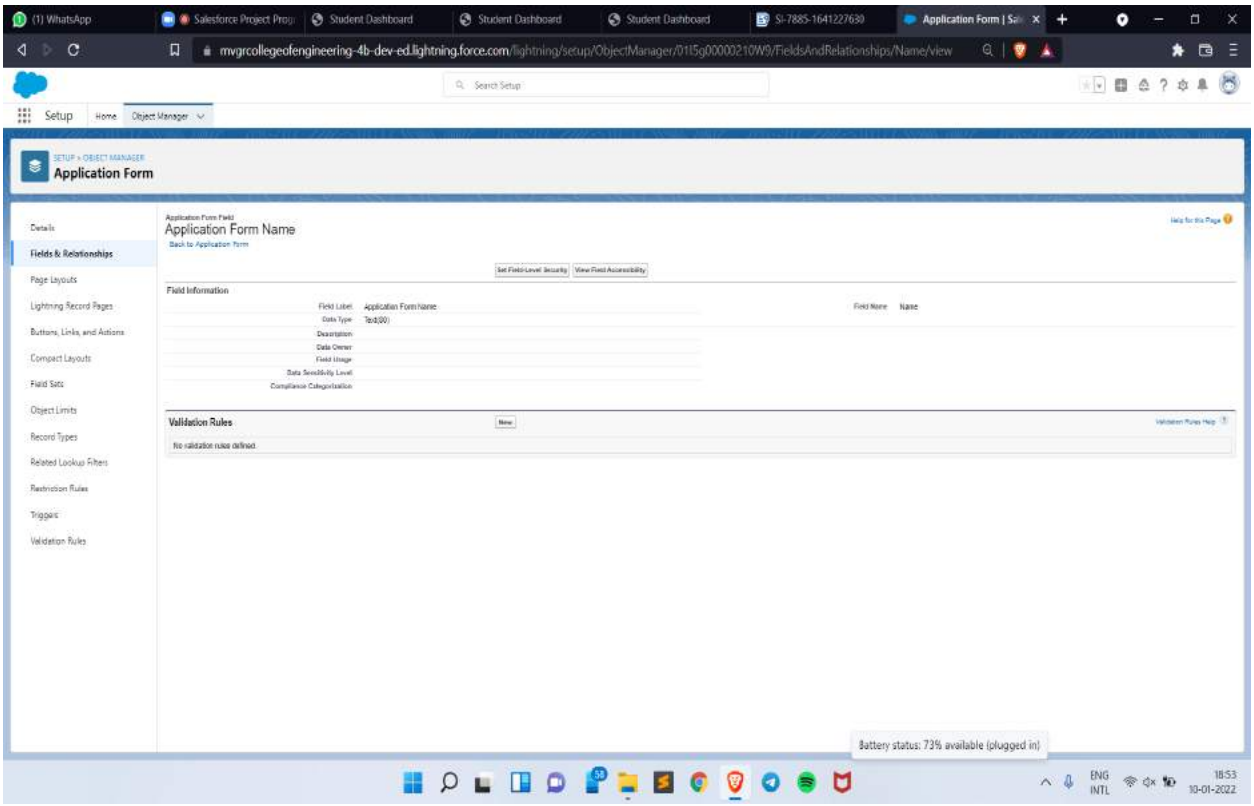

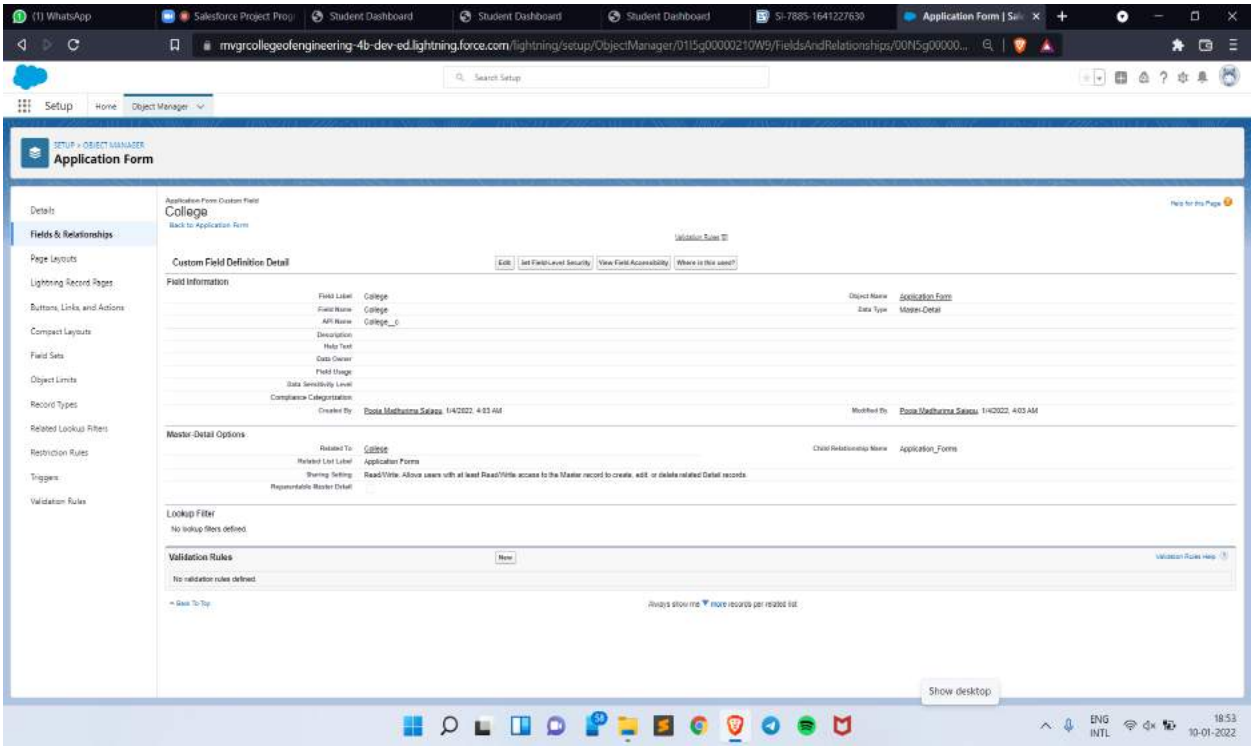

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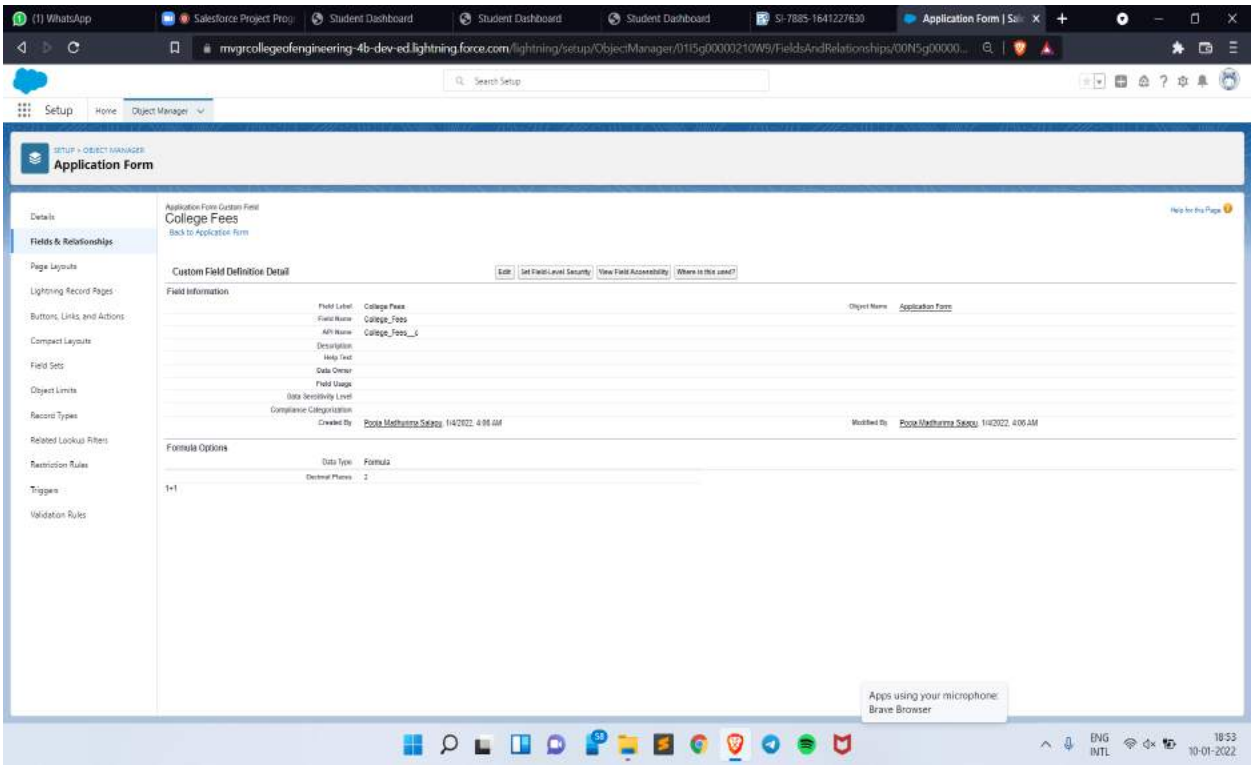

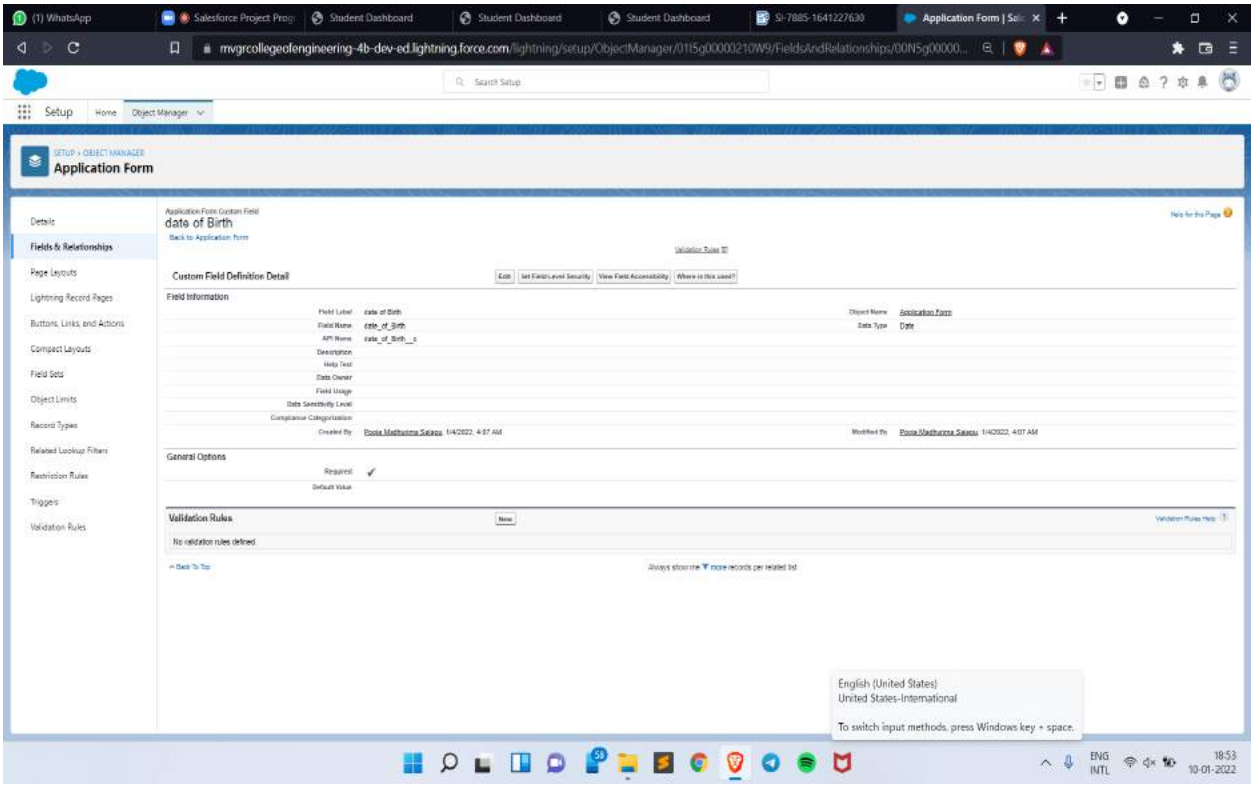

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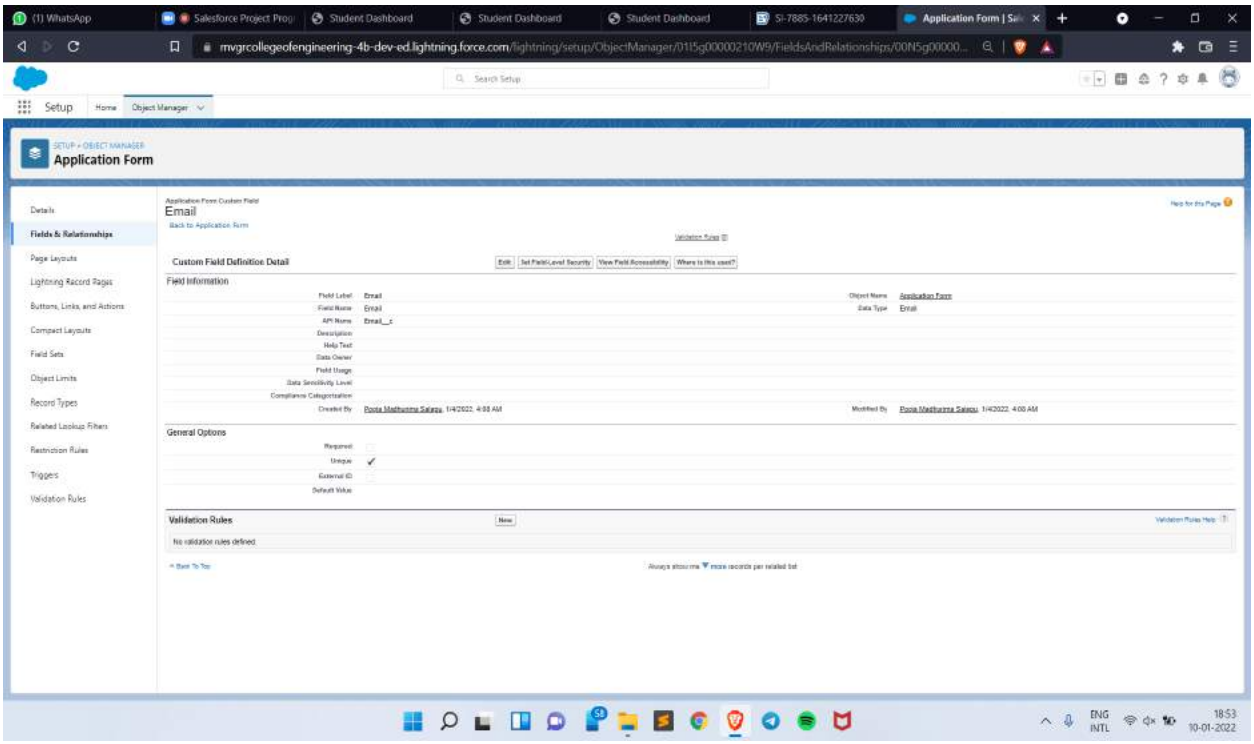

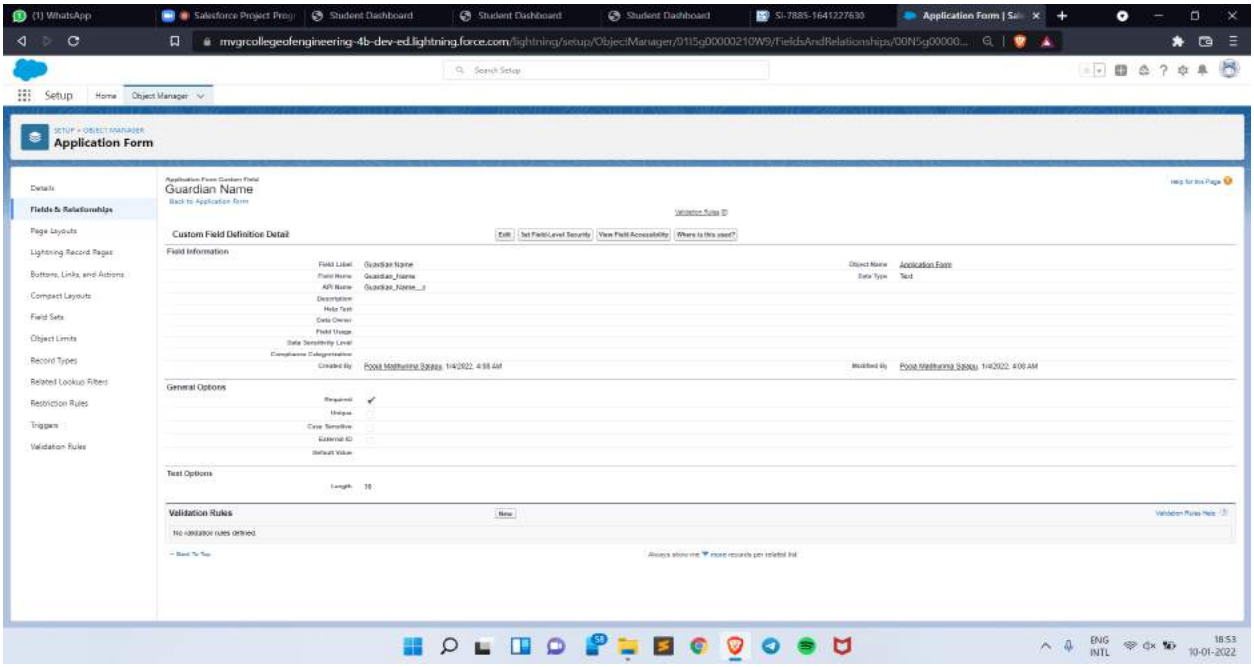

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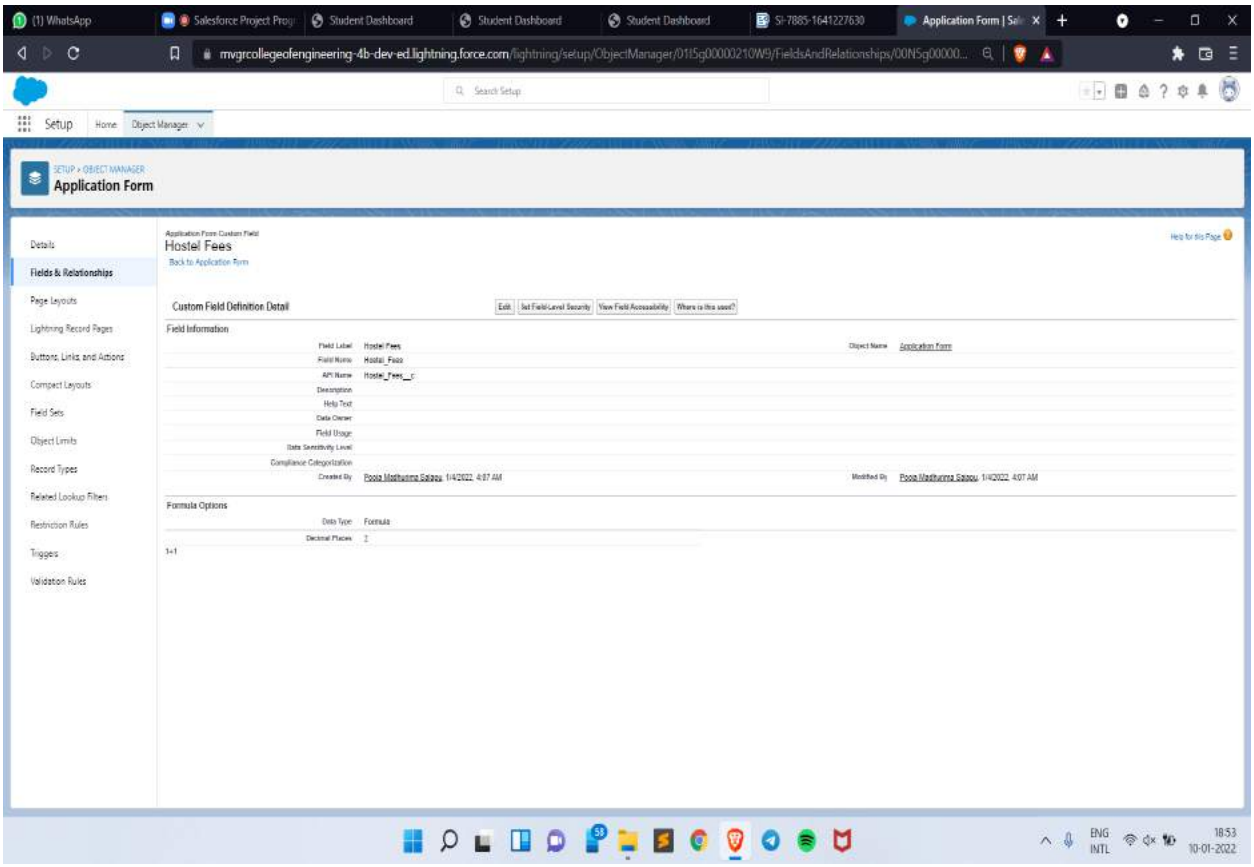

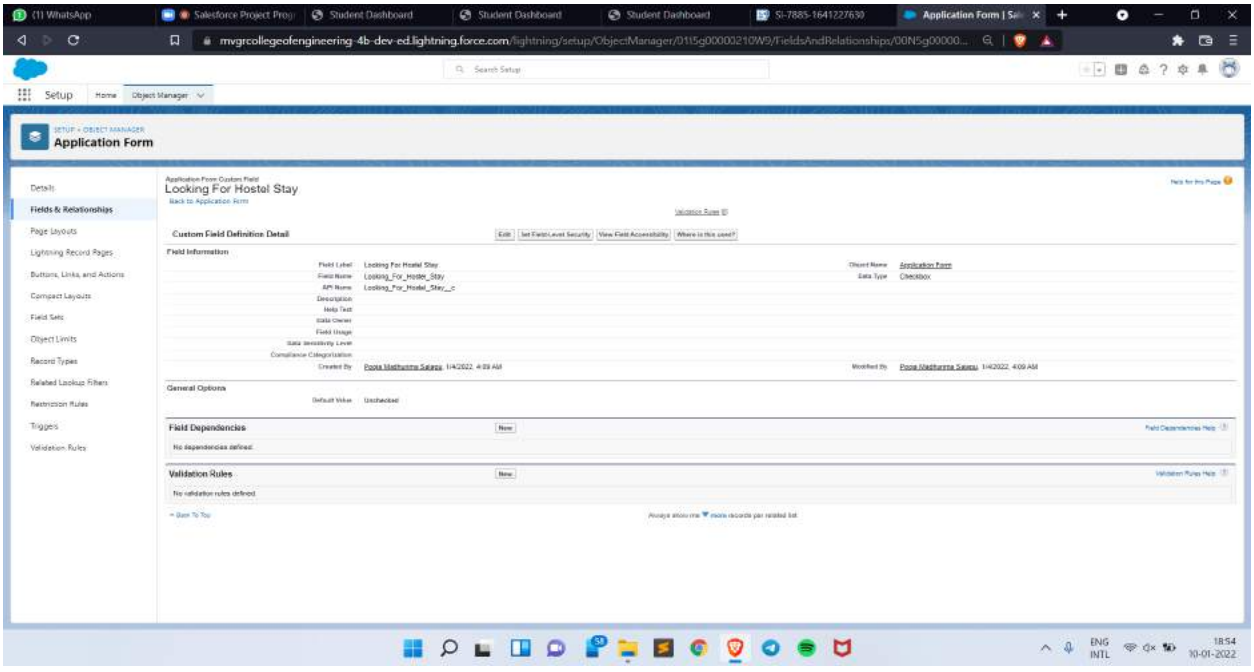

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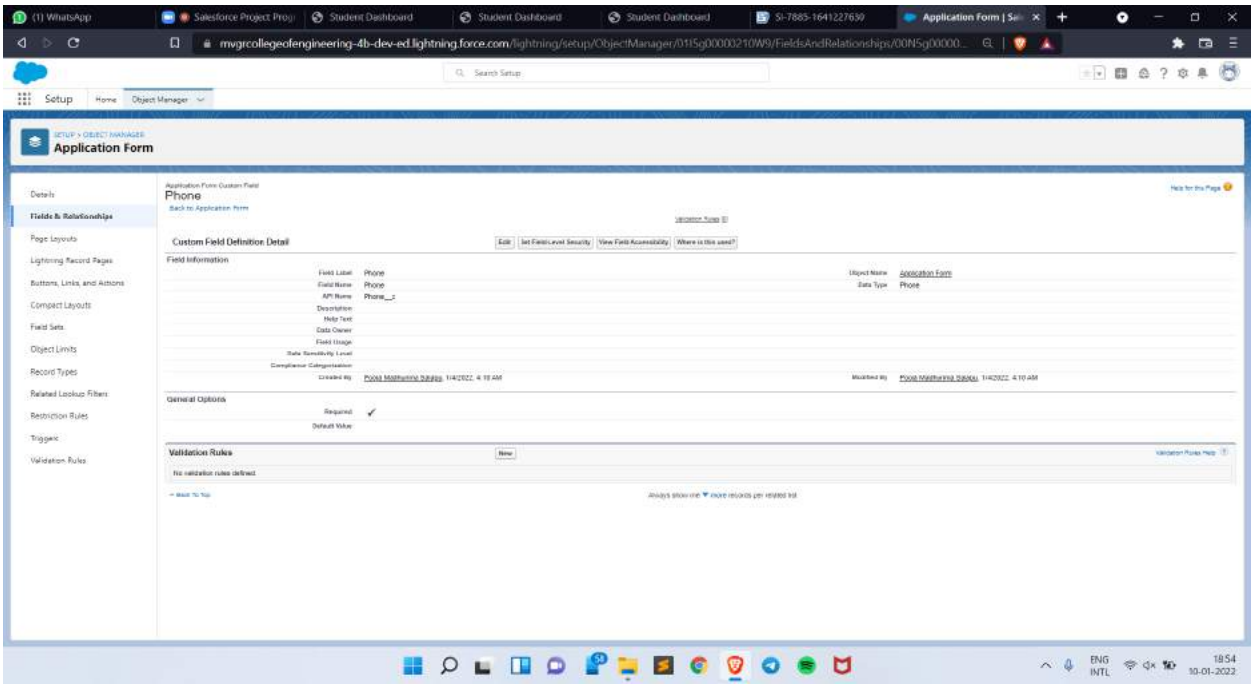

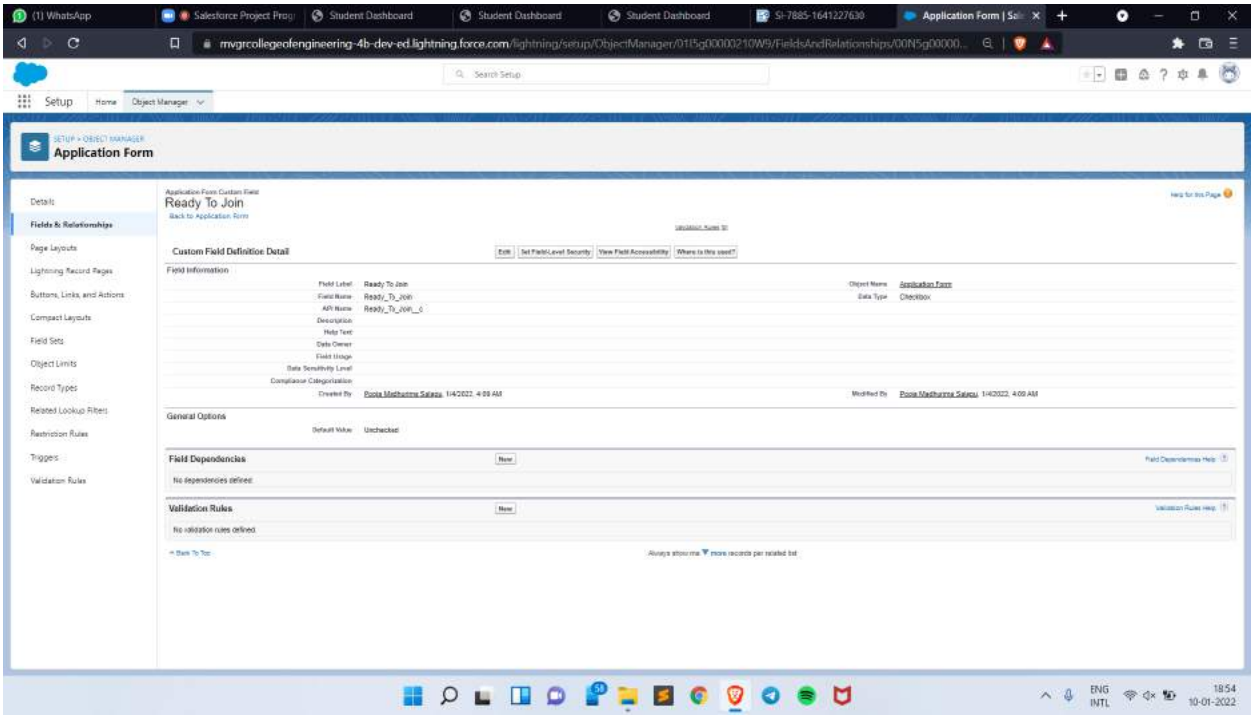

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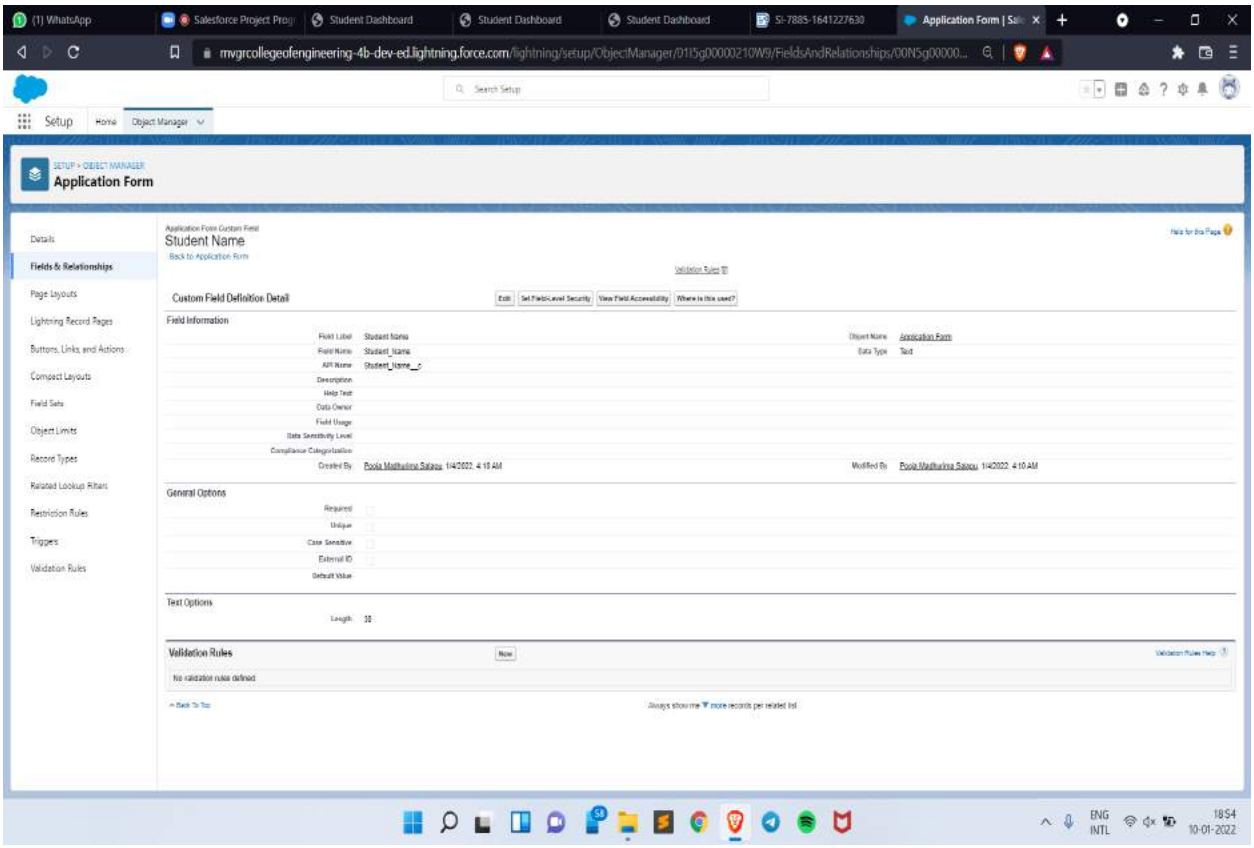

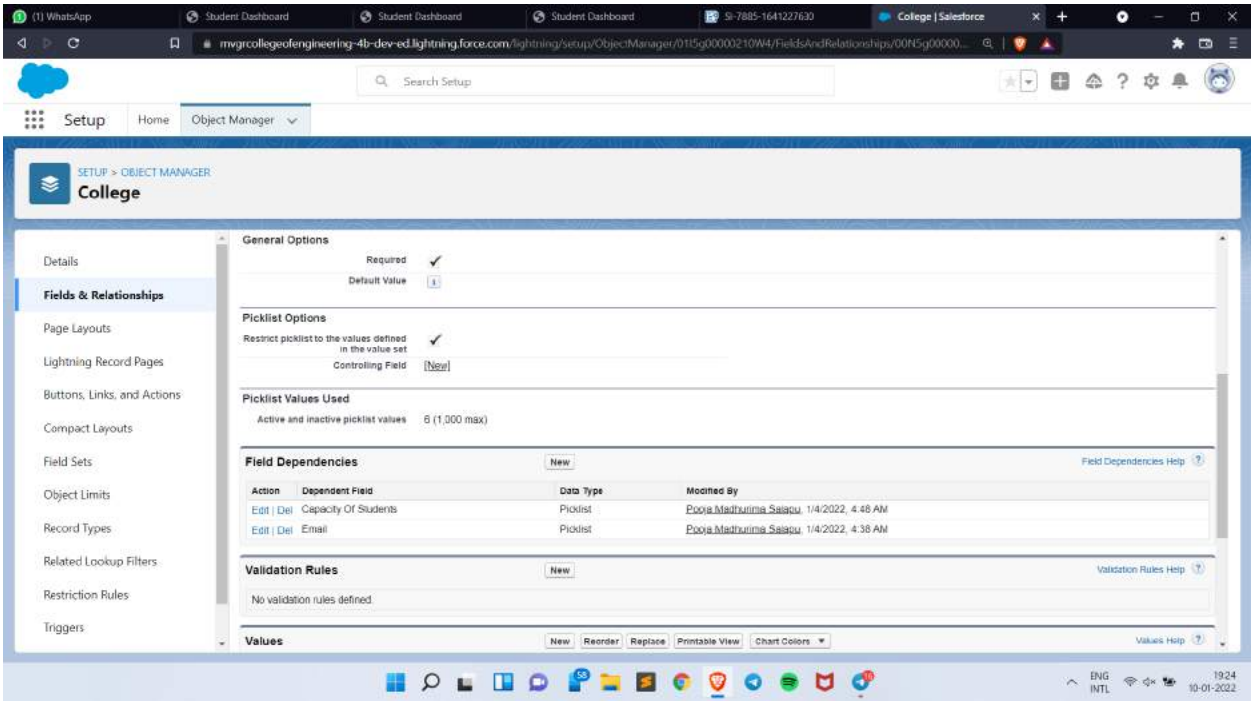

PROJECT REPORT

Day 3 :

Topic: Adding Business Logic To Application, Automations.

Milestone / Activities: Creating Validation Rules, Process Automation, Create The Student Record Using Flow.

Detailed Description:

Create validation rule for objects

Validation rule on the college object such that the college name and record info should have the same name. Click on an object and select the validation rule option. Add rule without syntax and save it.

Create process

For the process automation, Go to Setup -> select “Process Builder” from quick find. Create a Process Builder on the “Application Form” object with a condition as “When a record change”. And select “When a record is created or edited”. In the diamond shape box(called nodes), select the criteria which trigger the Process builder to fire. In our example, it is “When Ready to Join field is checked. Once the node is set up, click on the adjacent box called “Immediate action”. And select create a record on the student object.

Create flows

First deactivate the process builder which we created earlier. Now search for flows and select new flow ->record triggered flow. For object select application form, in configure trigger select when the record is updated for entry criteria select as ready to join equals to true. Now create a variable named student in the resource section. Now add assignments which is mapping from student fields to application fields. Now add create records. Create records is dragged to flow area and create a student record is added. Fields are assigned as mapping of student fields to application form fields.

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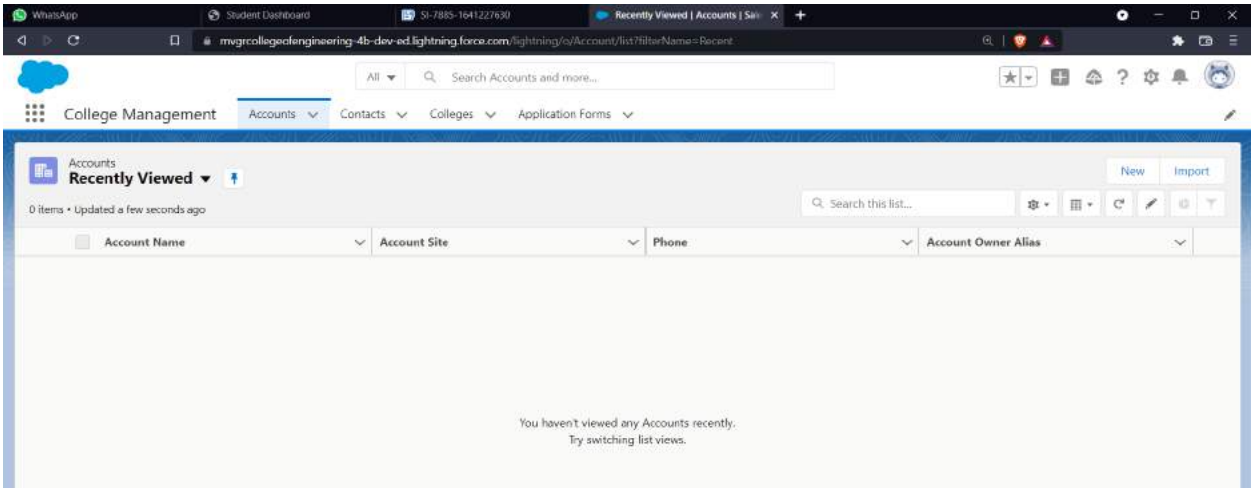
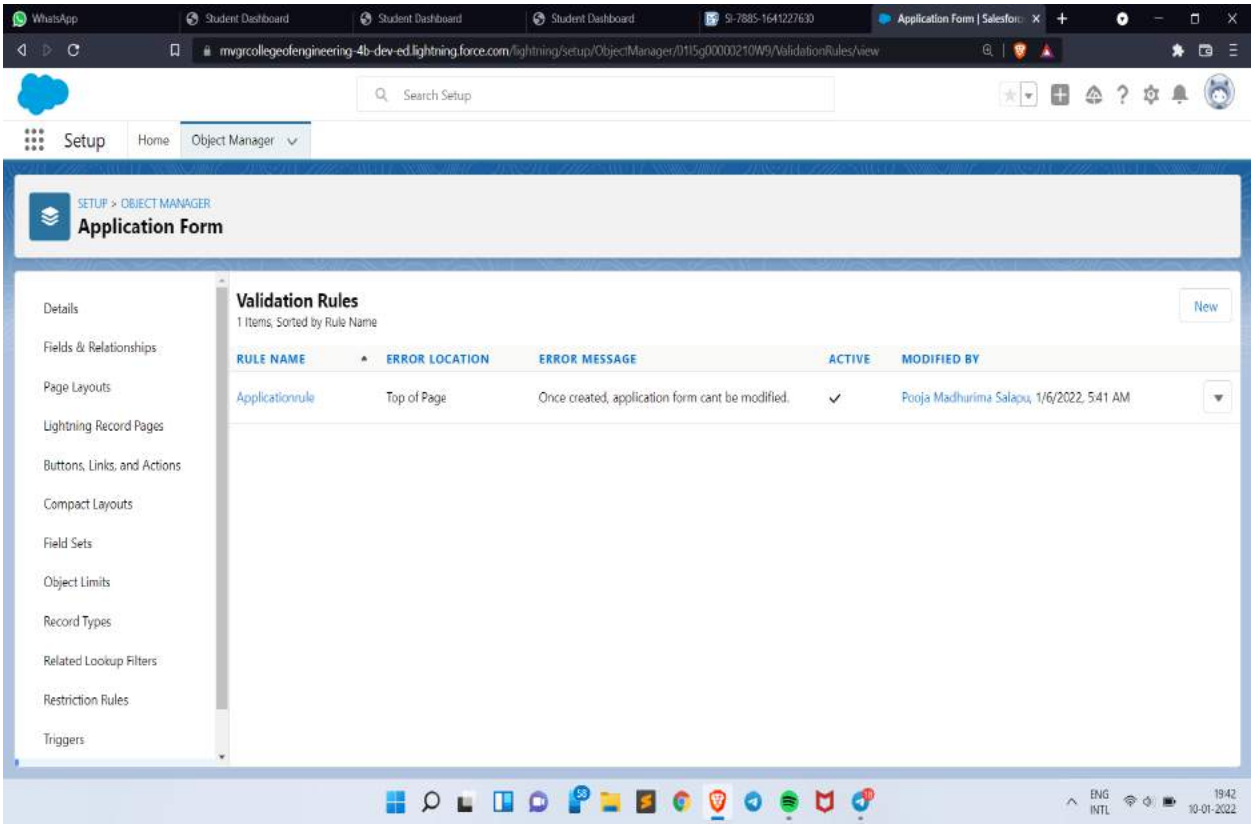
Upload the Screenshot the Milestone / Activities :





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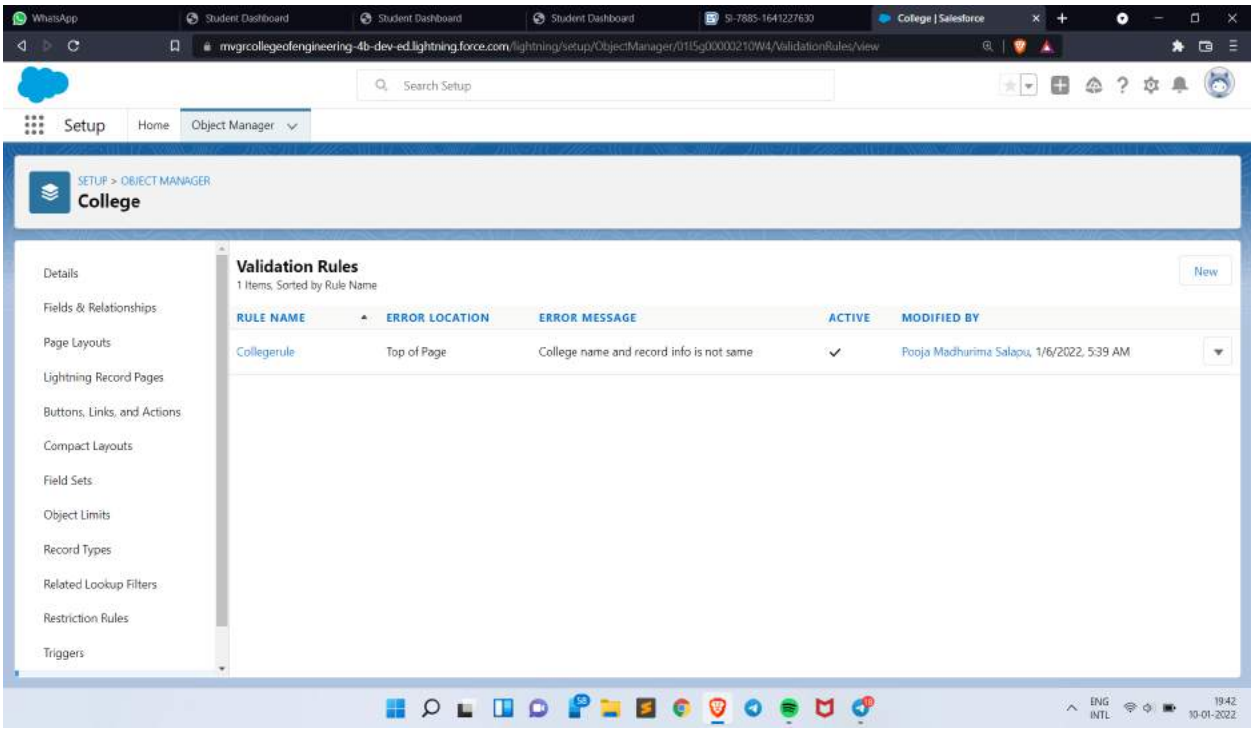

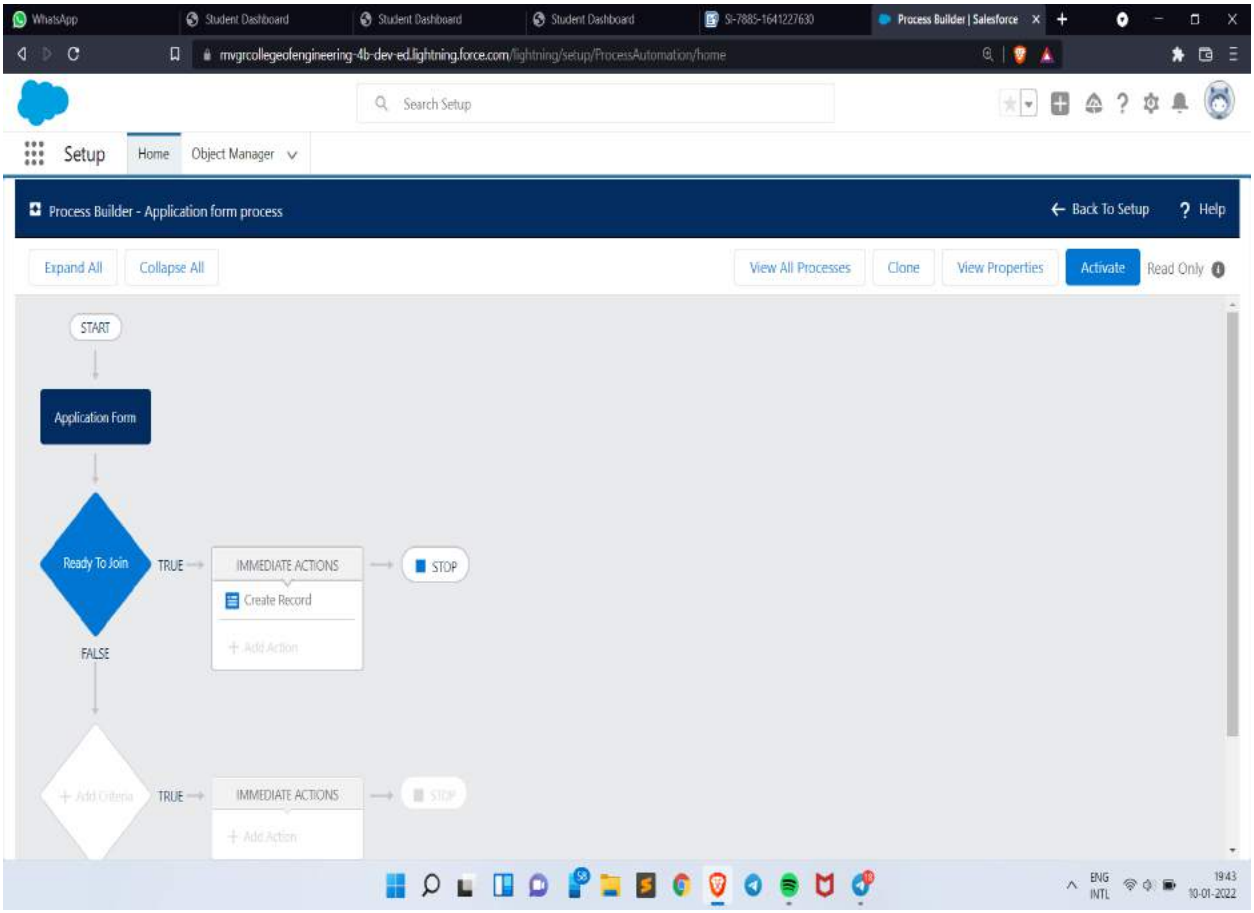

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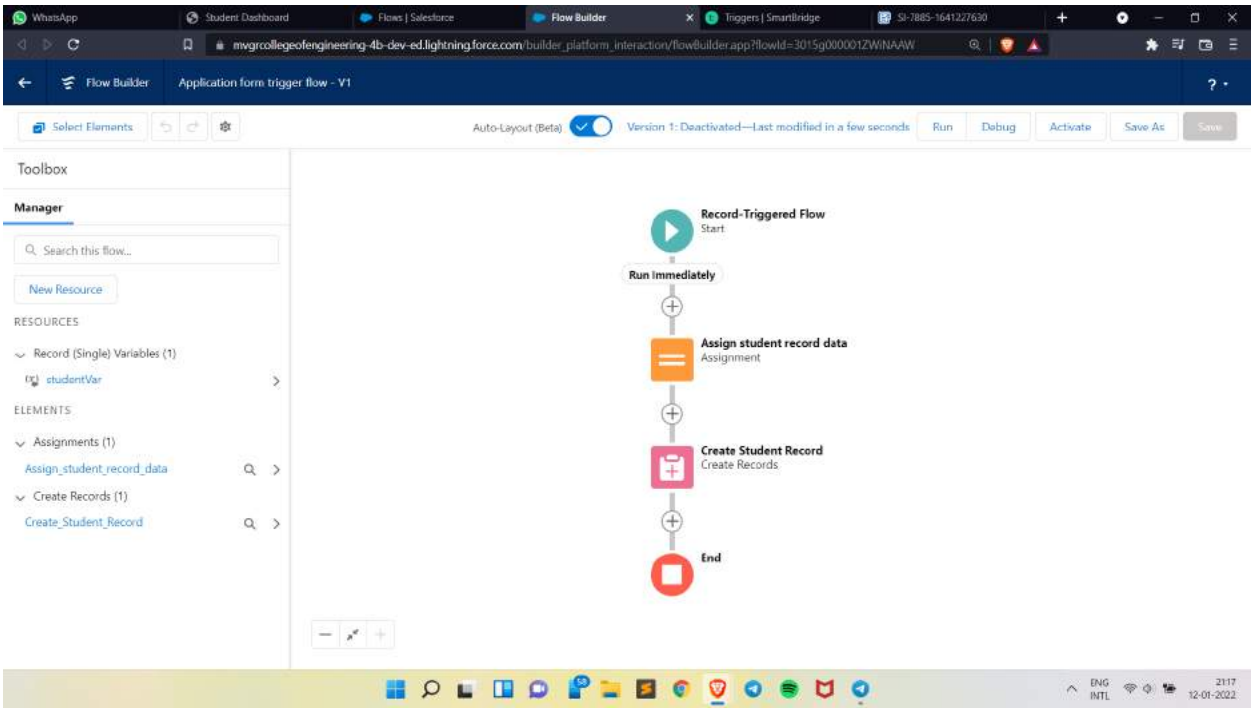

Day 4 :

Topic: Security and sharing, overview of apex

Milestone / Activities: Security settings for an object, Knowing how to create apex classes.

Detailed Description: For an object, we can set field level and record level security. We can add accessibility depending on groups, public groups or according to roles. Click on home, and open public groups. Create a group where one or more users can be added. The other process is to click on an object and click on the set field accessibility button to change settings. We can assign hierarchical wise security also.

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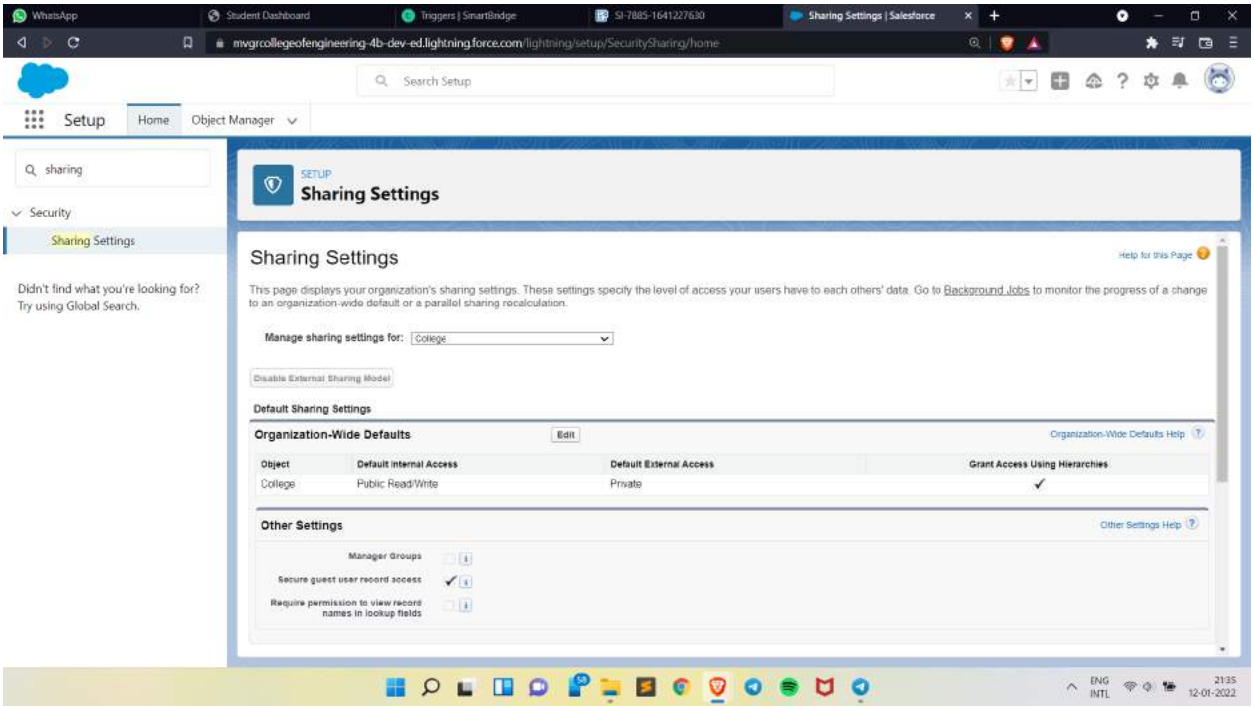
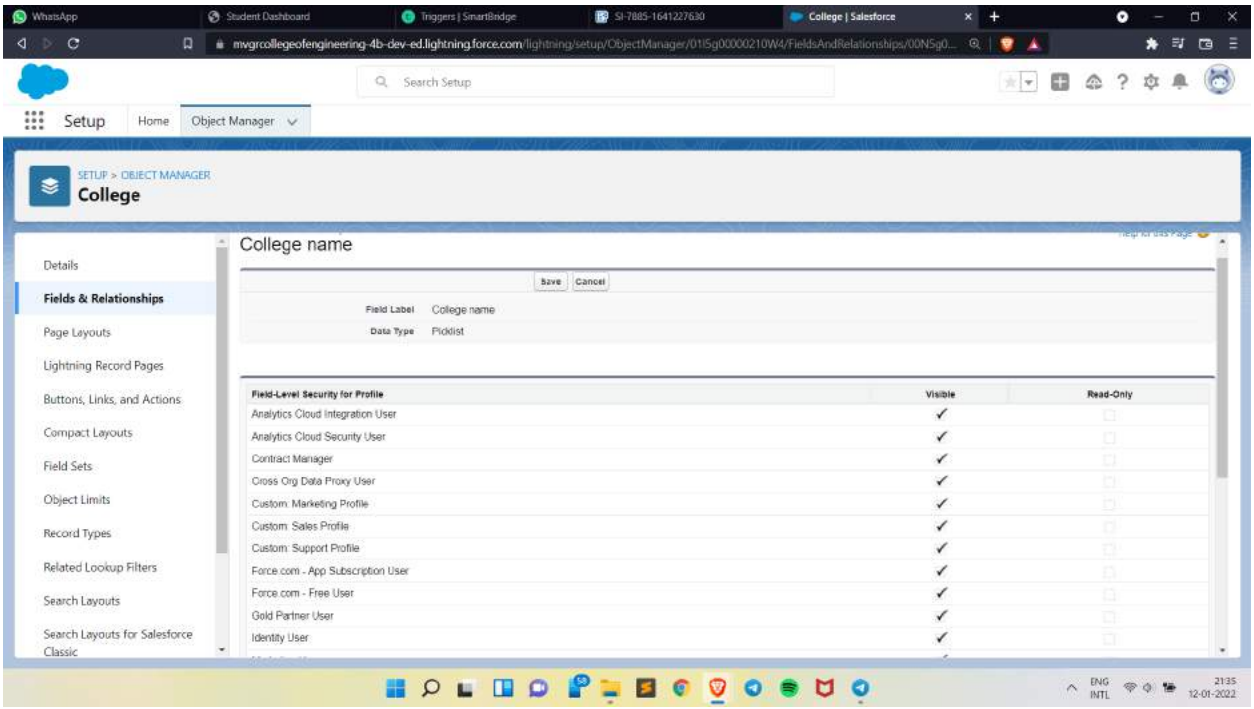
Upload the Screenshot the Milestone / Activities:





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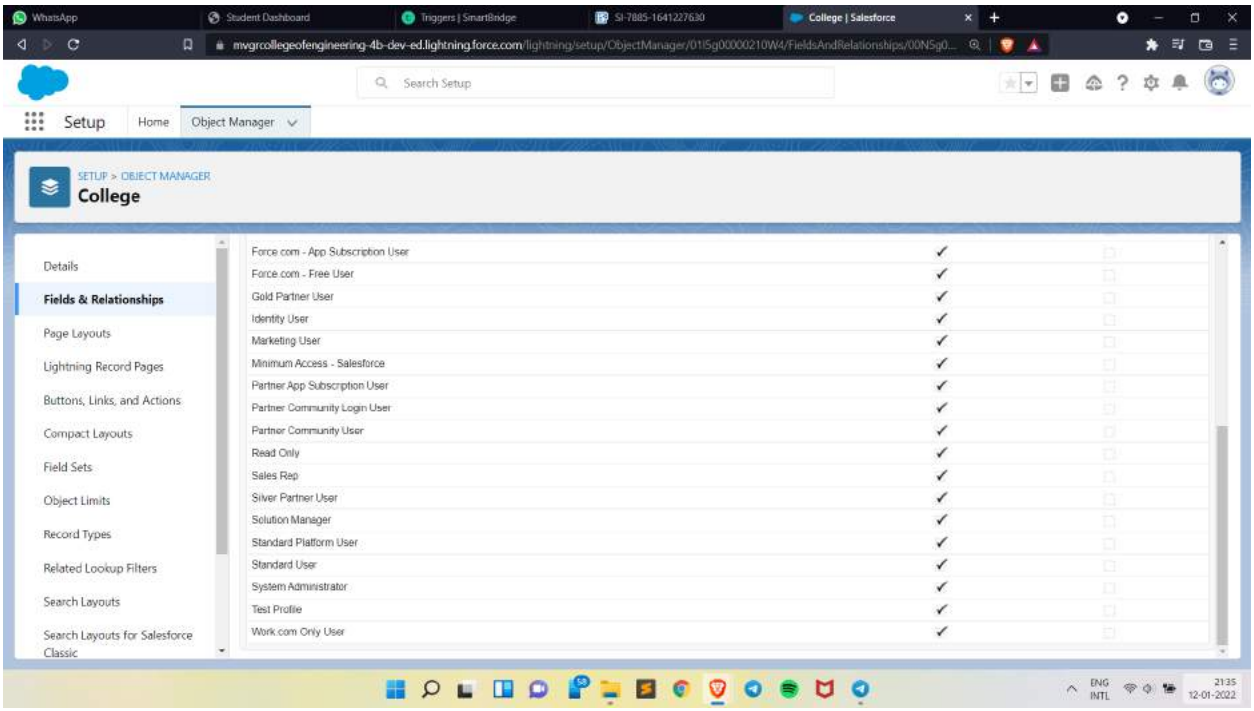
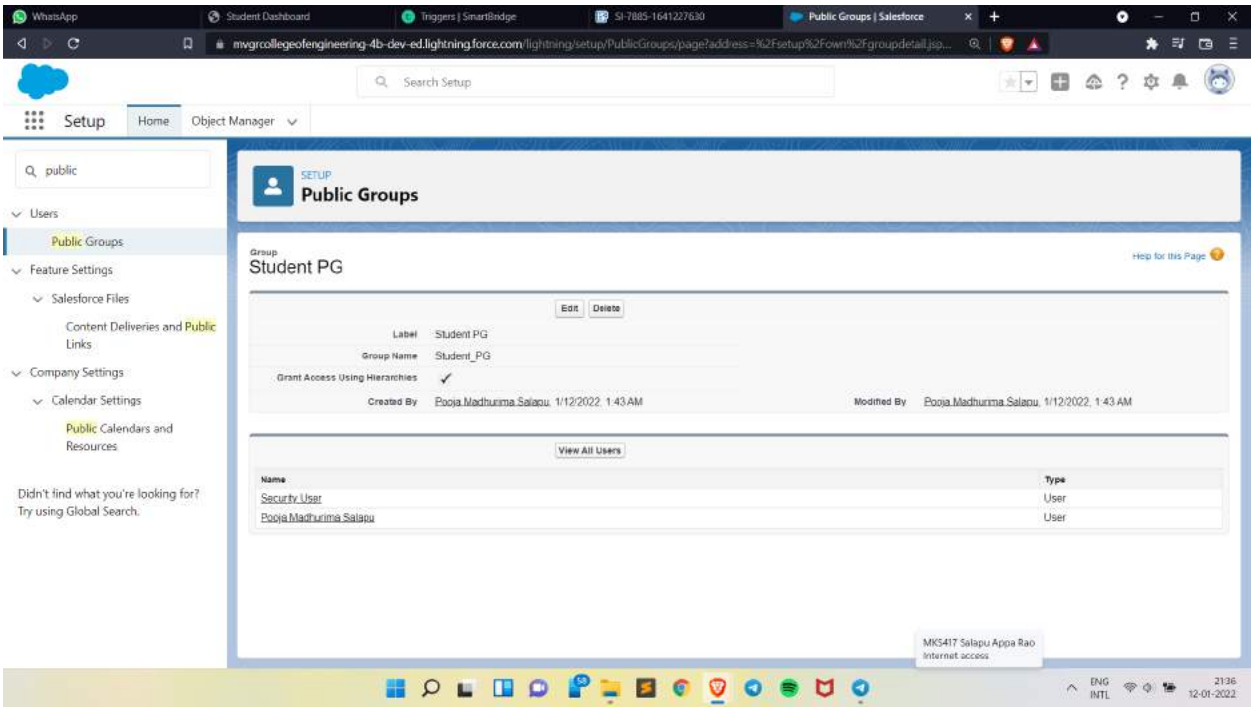




PROJECT REPORT

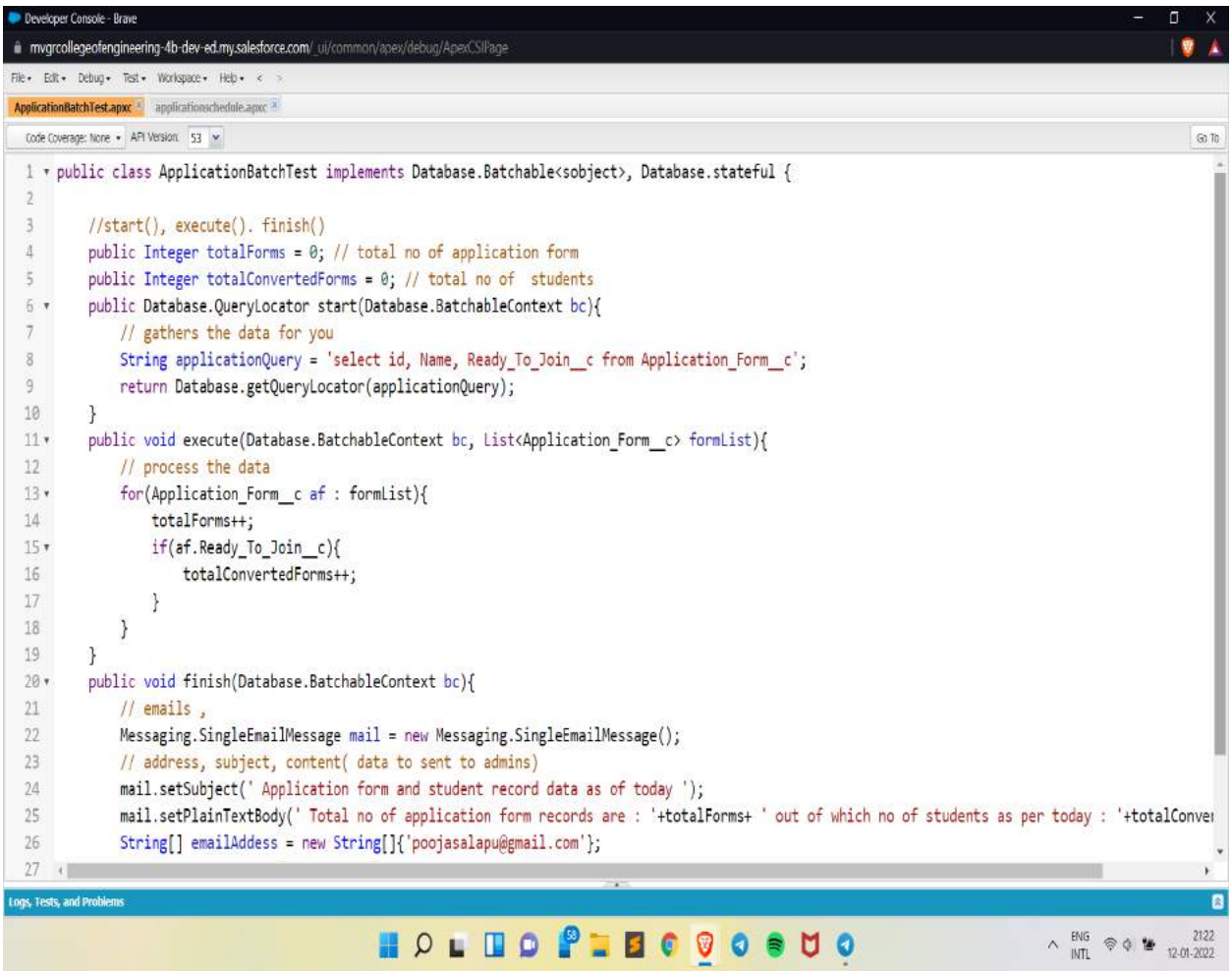
Day 5 :

Topic: Primitive Datatypes, Collections

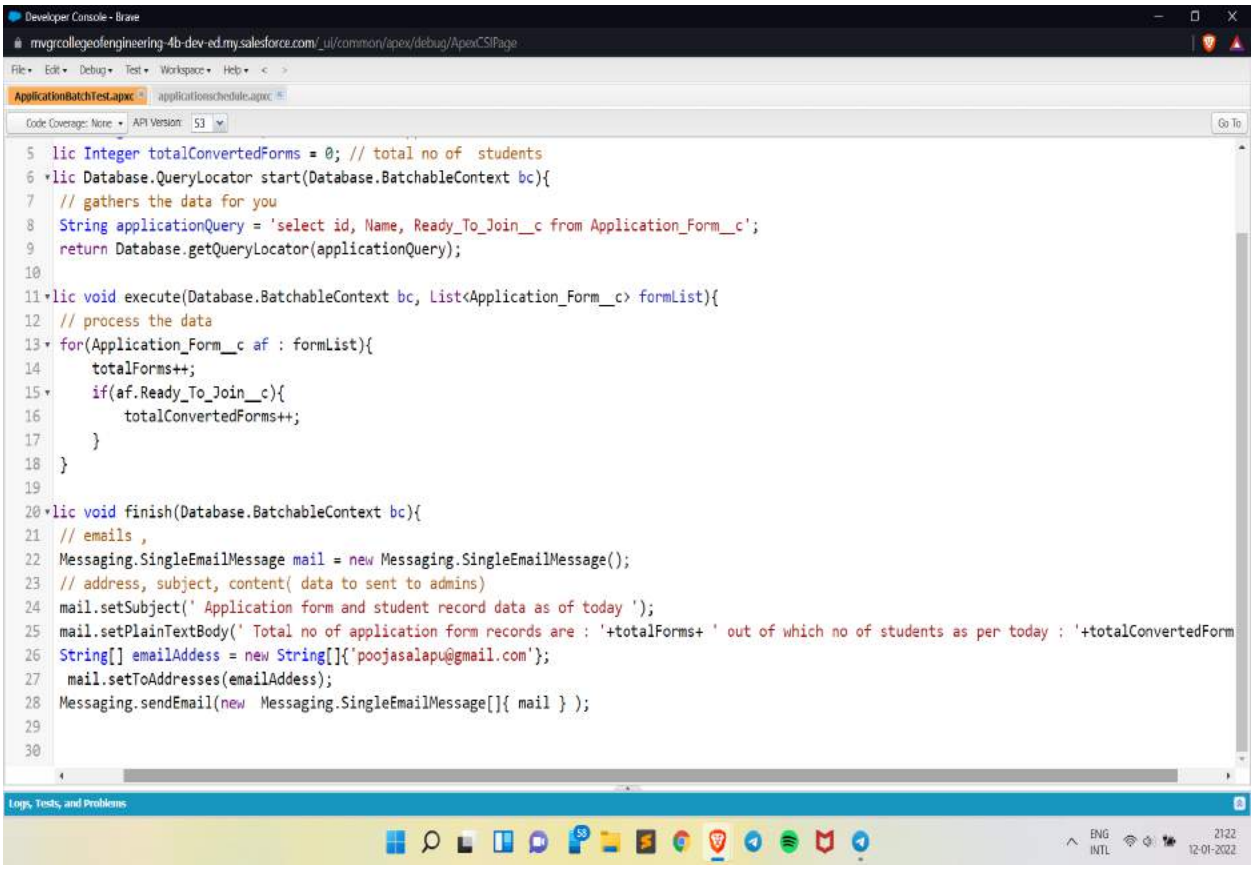
Milestone / Activities: To know about primitive datatypes, collections

Detailed Description: While using apex, we get to use datatypes like int, boolean, string etc. Collections like List<sobject>, Set<> etc can be used.

Upload the Screenshot the Milestone / Activities :



PROJECT REPORT



Day 6 : Overview of triggers, Batch Apex classes.

Topic:

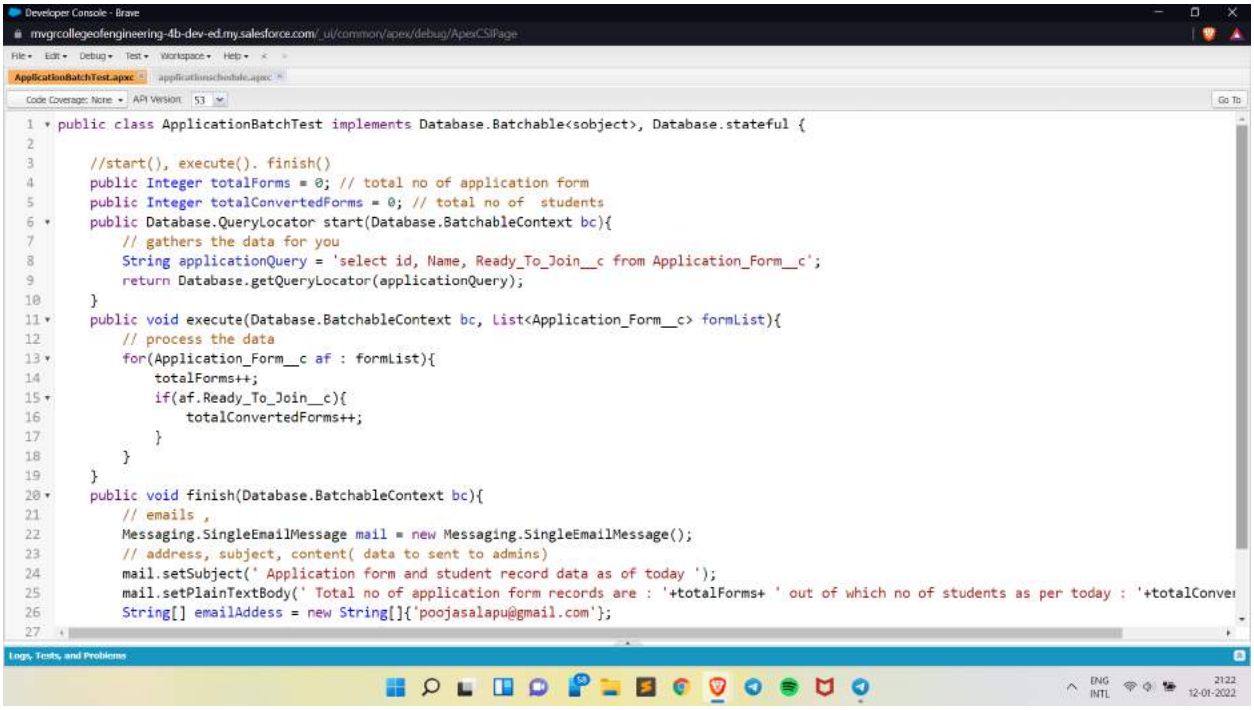
Milestone / Activities:Create A Batch apex For Application Form, Create A Schedular Class

Detailed Description:Open developer console and using new option we can create new apex classes.

We create ApplicationBatchTest and applicationschedule classes to schedule jobs. From setup search for apex class and click on schedule jobs and fill the details as per your requirements.

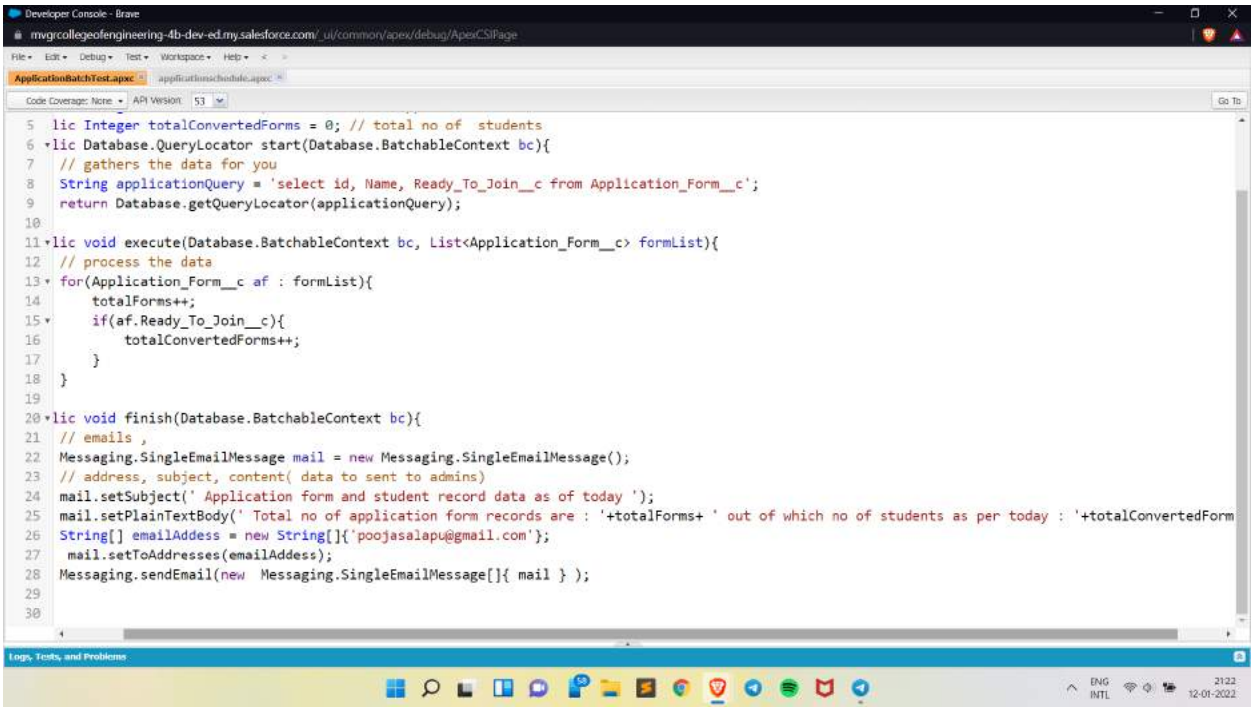
PROJECT REPORT

Upload the Screenshot the Milestone / Activities :




```
public class ApplicationBatchTest implements Database.Batchable<sobject>, Database.stateful {

    //start(), execute(). finish()
    public Integer totalForms = 0; // total no of application form
    public Integer totalConvertedForms = 0; // total no of  students
    public Database.QueryLocator start(Database.BatchableContext bc){
        // gathers the data for you
        String applicationQuery = 'select id, Name, Ready_To_Join__c from Application_Form__c';
        return Database.getQueryLocator(applicationQuery);
    }
    public void execute(Database.BatchableContext bc, List<Application_Form__c> formList){
        // process the data
        for(Application_Form__c af : formList){
            totalForms++;
            if(af.Ready_To_Join__c){
                totalConvertedForms++;
            }
        }
    }
    public void finish(Database.BatchableContext bc){
        // emails ,
        Messaging.SingleEmailMessage mail = new Messaging.SingleEmailMessage();
        // address, subject, content( data to sent to admins)
        mail.setSubject(' Application form and student record data as of today ');
        mail.setPlainTextBody(' Total no of application form records are : '+totalForms+ ' out of which no of students as per today : '+totalConver
        String[] emailAddess = new String[]{'poojasalapu@gmail.com'};
```

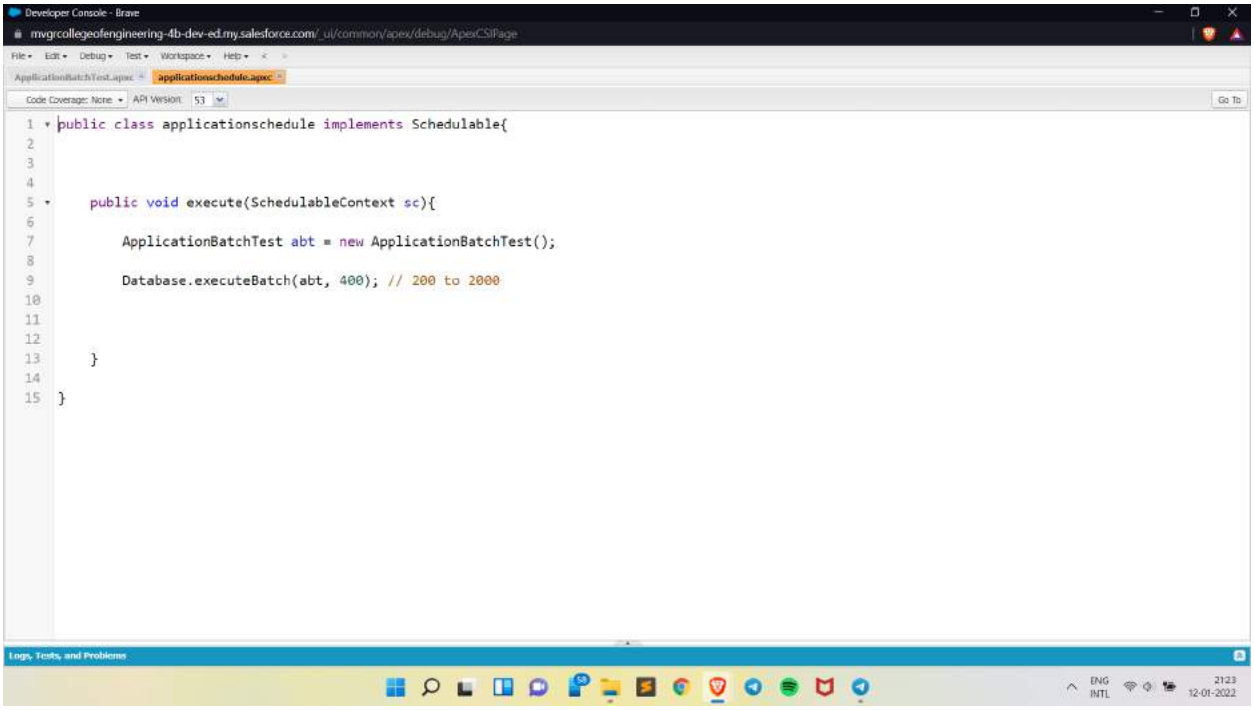


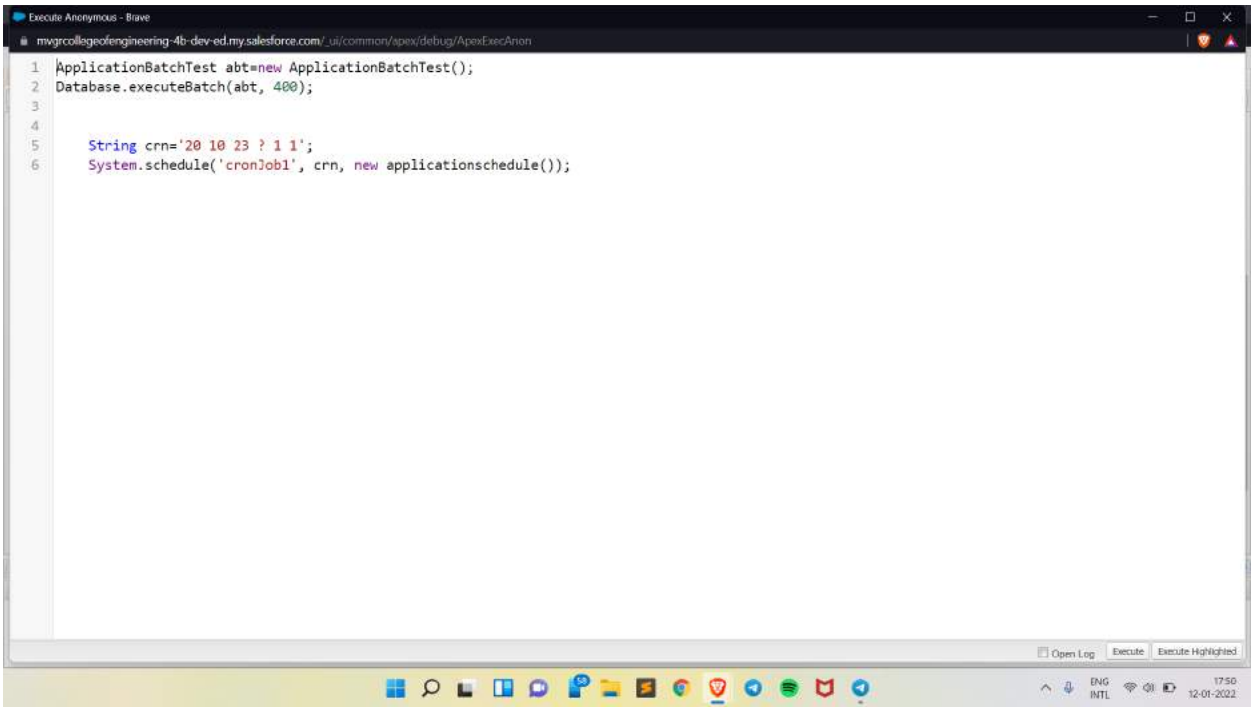

```
lic Integer totalConvertedForms = 0; // total no of  students
lic Database.QueryLocator start(Database.BatchableContext bc){
 // gathers the data for you
 String applicationQuery = 'select id, Name, Ready_To_Join__c from Application_Form__c';
 return Database.getQueryLocator(applicationQuery);

lic void execute(Database.BatchableContext bc, List<Application_Form__c> formList){
 // process the data
 for(Application_Form__c af : formList){
     totalForms++;
     if(af.Ready_To_Join__c){
         totalConvertedForms++;
     }
 }

lic void finish(Database.BatchableContext bc){
 // emails ,
 Messaging.SingleEmailMessage mail = new Messaging.SingleEmailMessage();
 // address, subject, content( data to sent to admins)
 mail.setSubject(' Application form and student record data as of today ');
 mail.setPlainTextBody(' Total no of application form records are : '+totalForms+ ' out of which no of students as per today : '+totalConvertedForm
 String[] emailAddess = new String[]{'poojasalapu@gmail.com'};
  mail.setToAddresses(emailAddess);
 Messaging.sendEmail(new  Messaging.SingleEmailMessage[]{ mail } );
```

PROJECT REPORT





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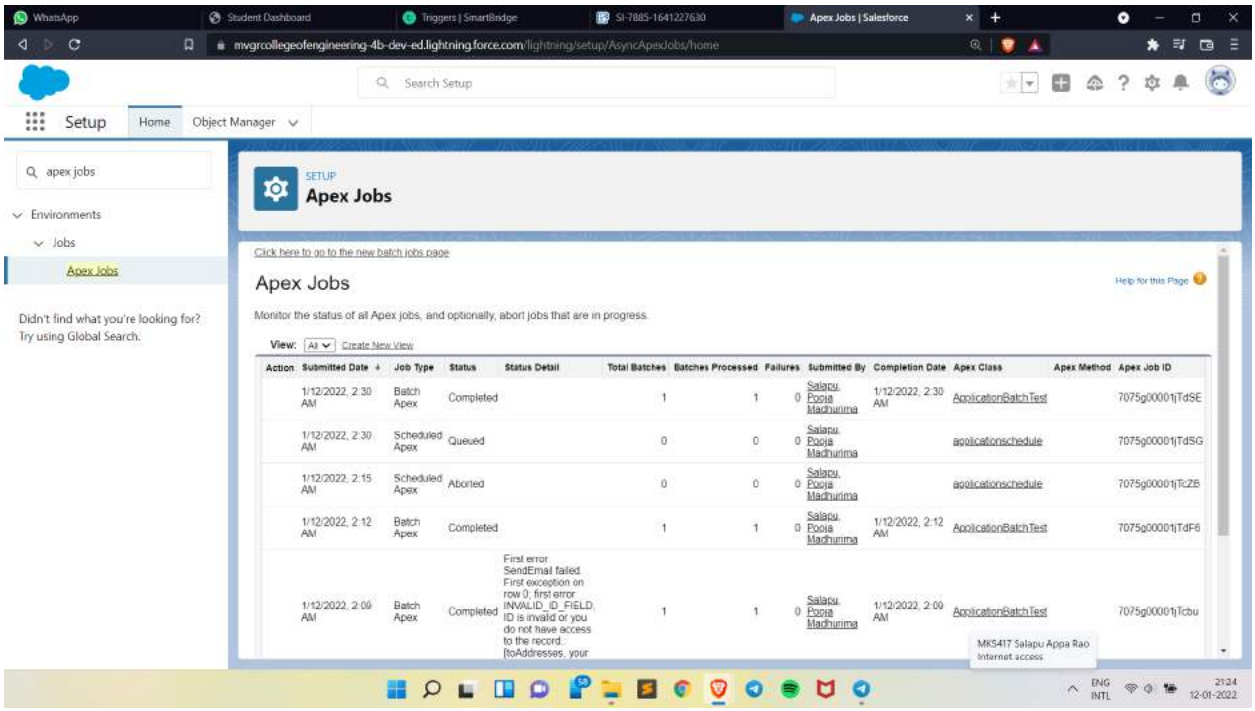

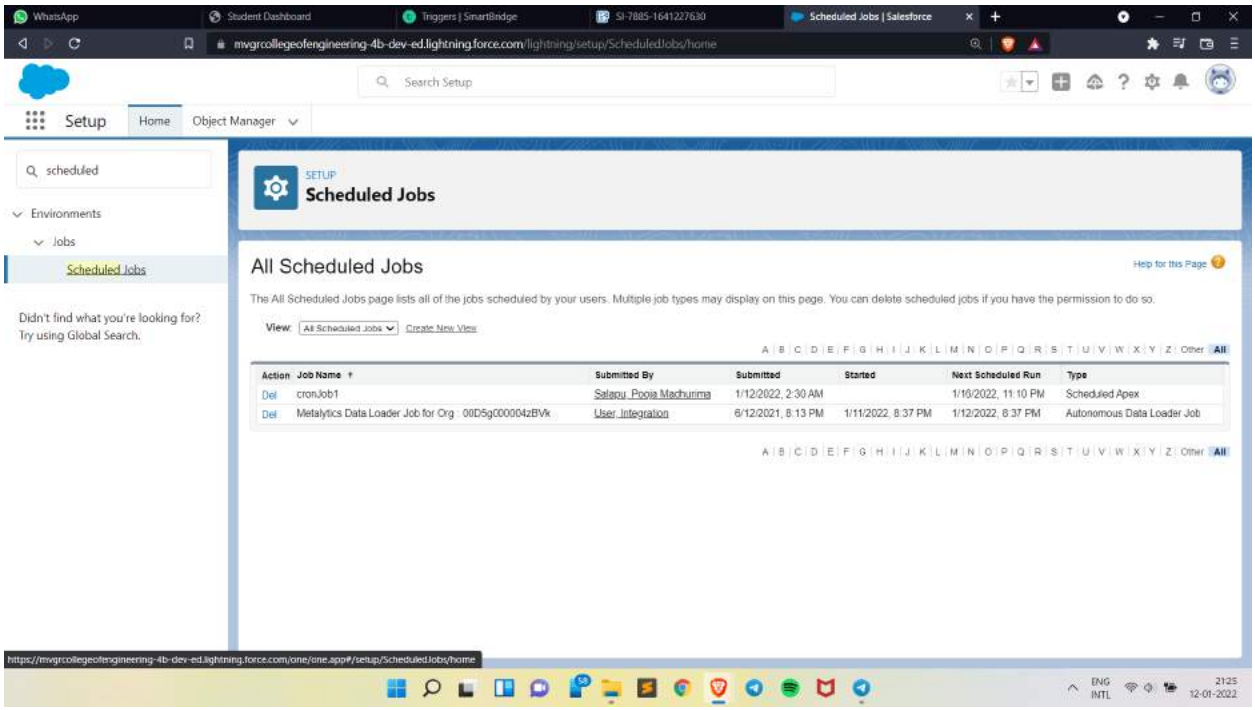

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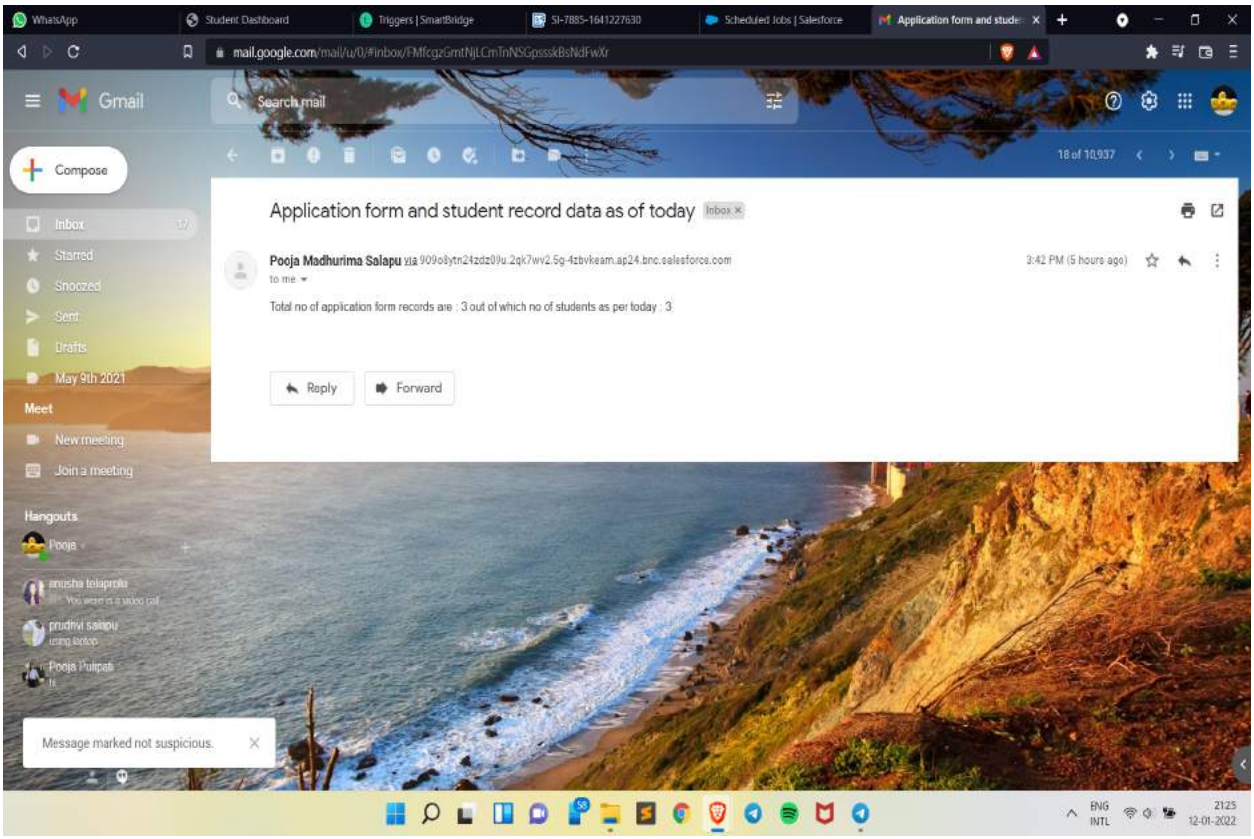


Day 7 :

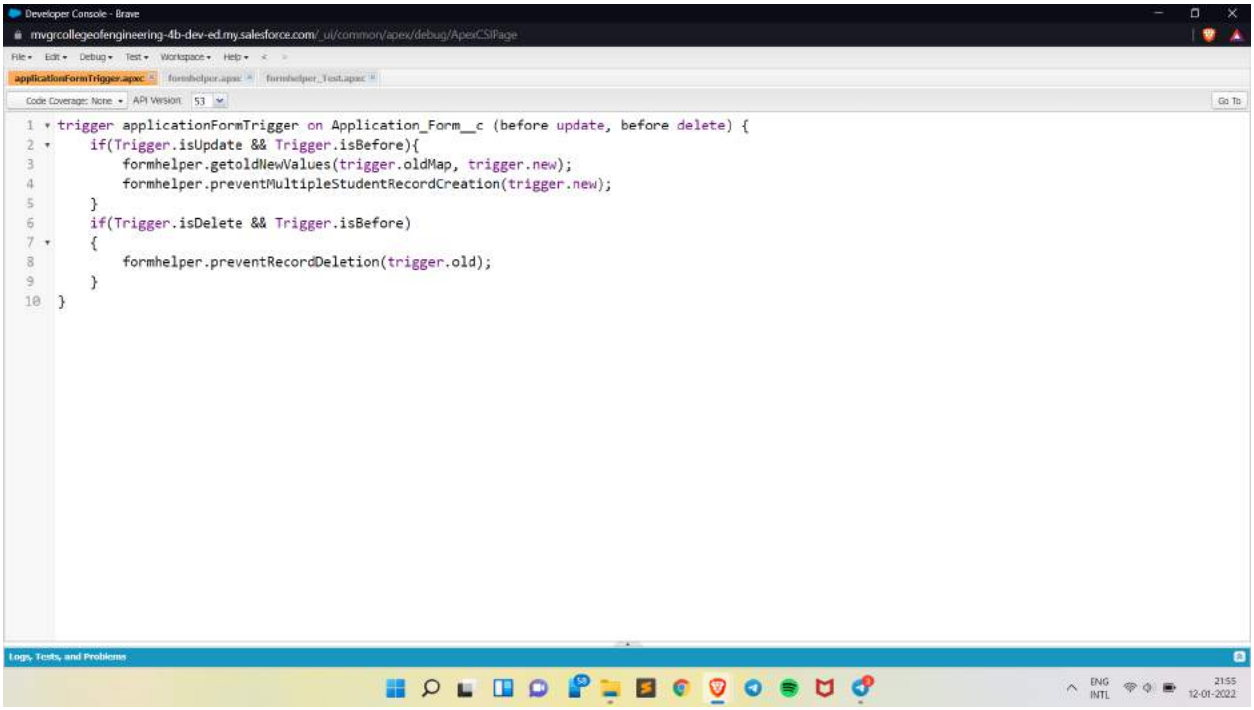
Topic: Triggers.

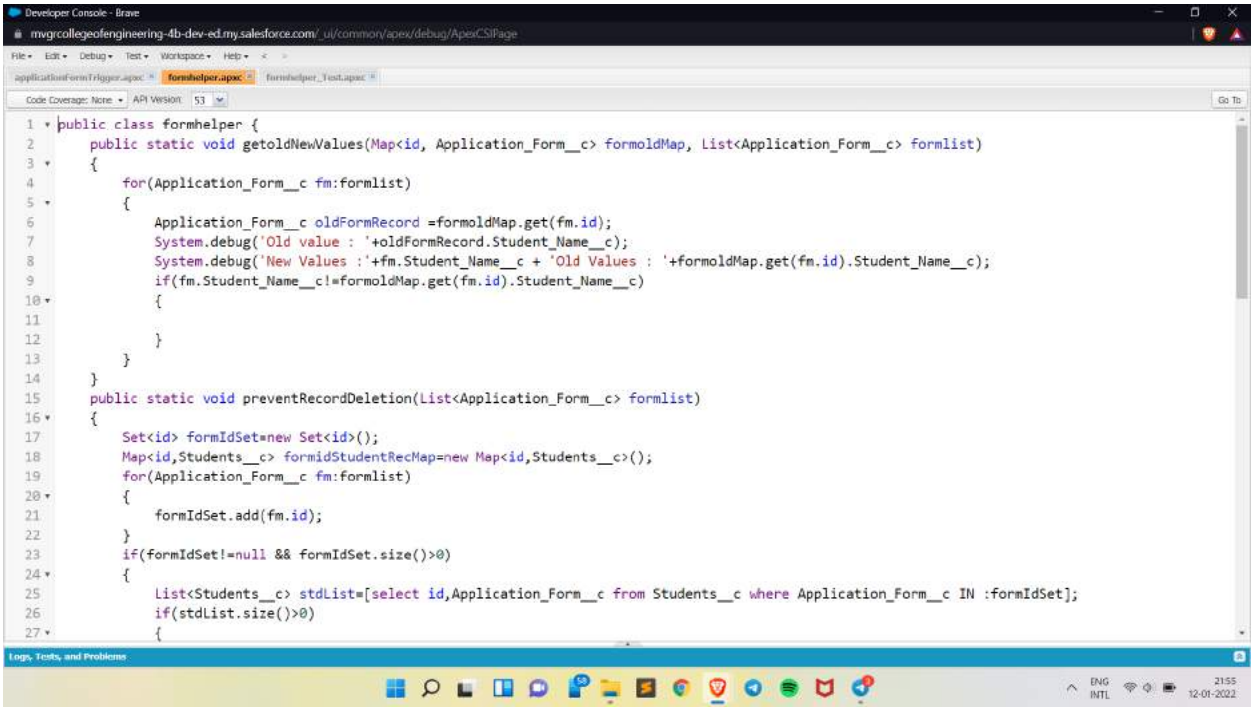
Milestone / Activities: To know about how triggers are used. Create trigger classes for application form object.

Detailed Description: Open developer console and click on New. Click on the trigger and give it a name. Before insert, delete, update and after insert,delete and update operations are tracked or set by triggers.

PROJECT REPORT

Upload the Screenshot the Milestone / Activities :





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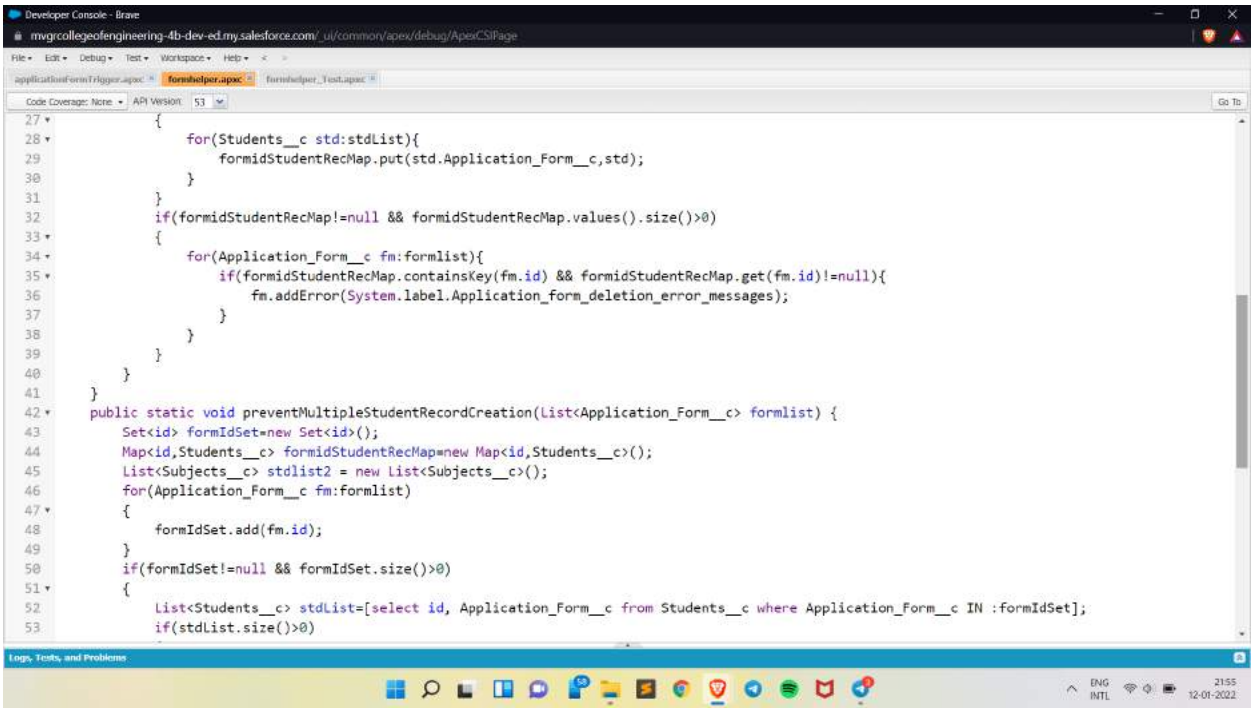

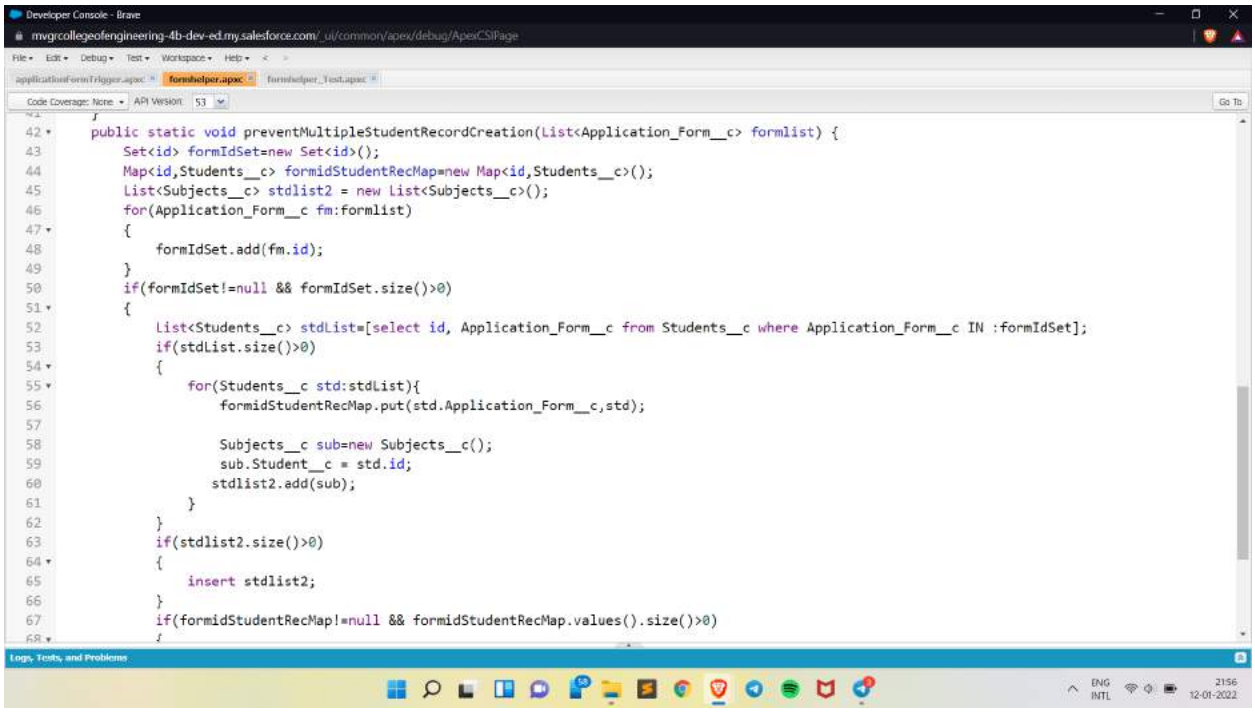

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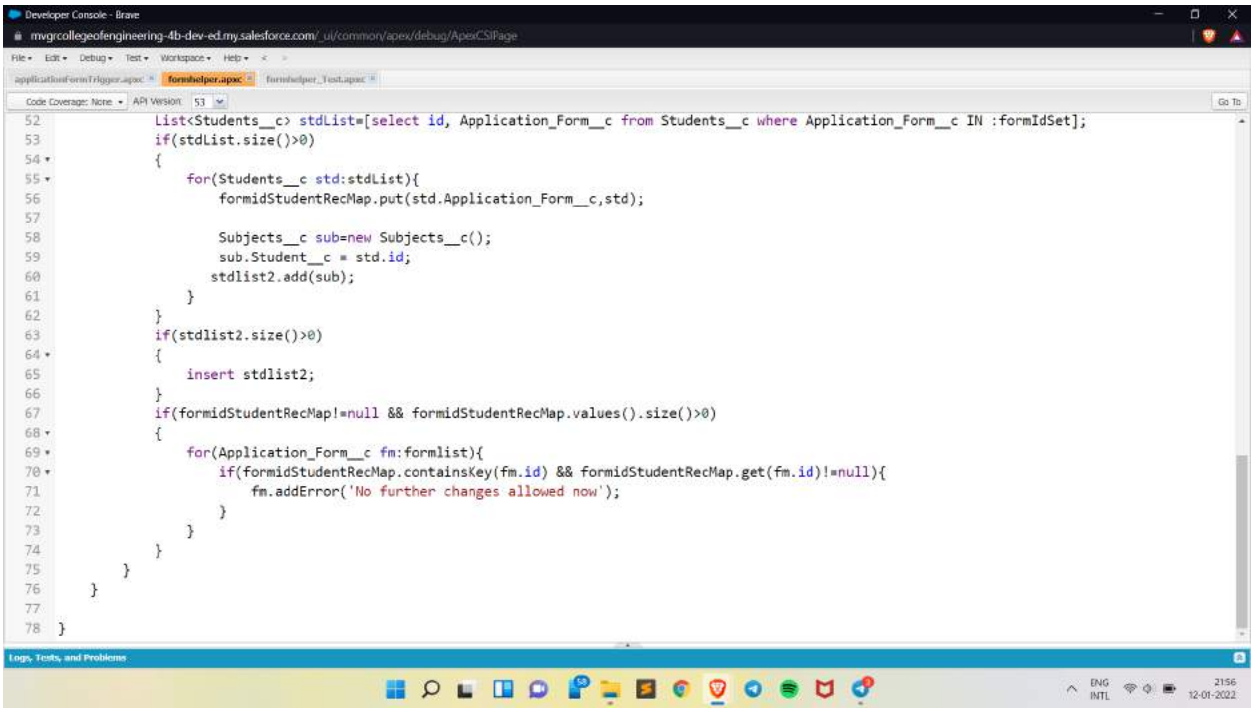
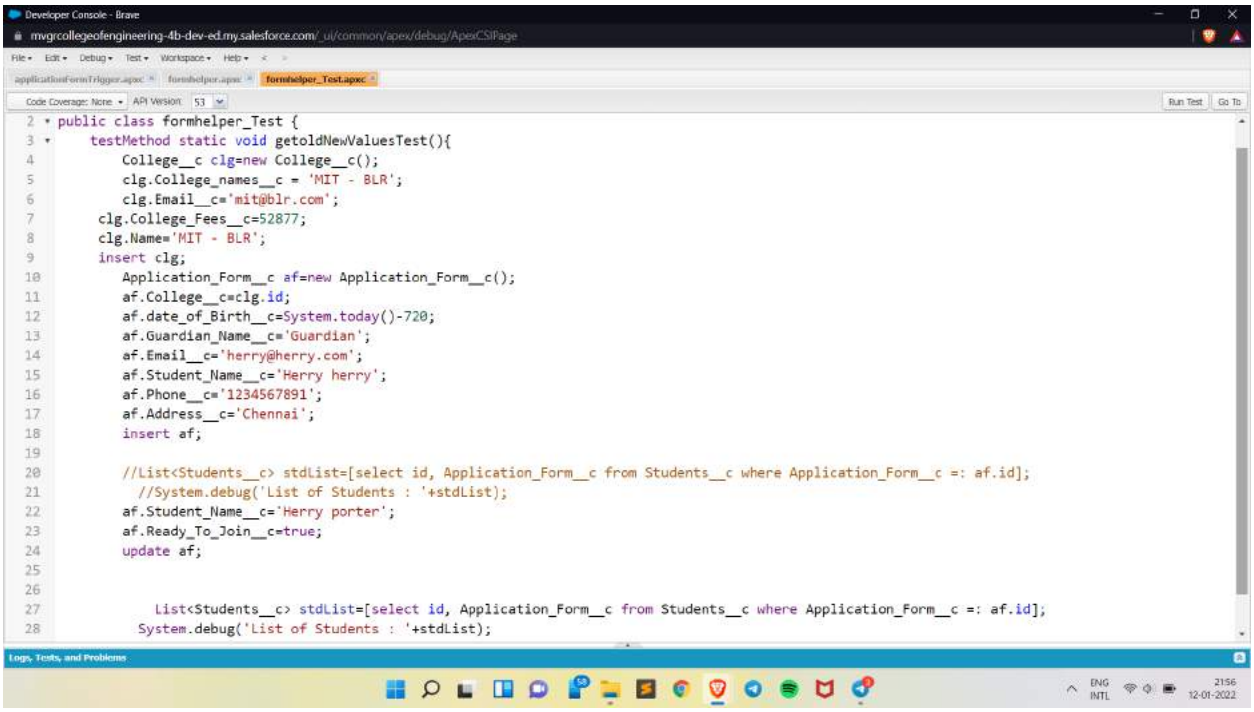




PROJECT REPORT

Day 8 :

Topic: Javascript, VS Code, Salesforce CLI, LWC Setup.

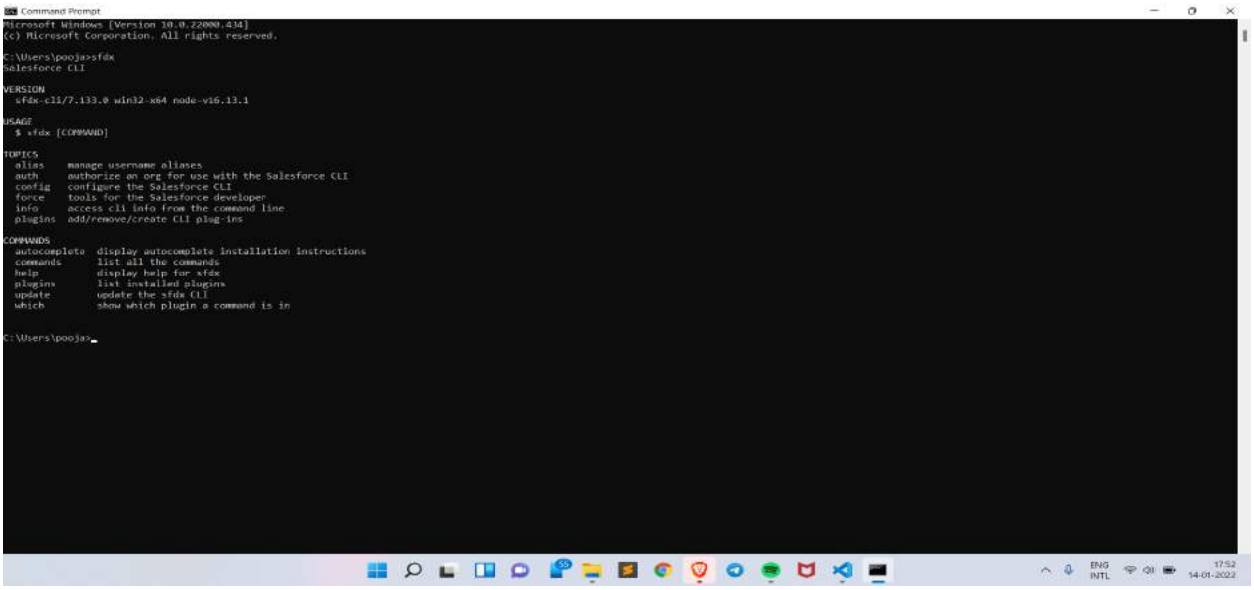
Milestone / Activities: Javascript introduction, VS code install and salesforce cli setup. Salesforce LWC setup and working from VS code to connect to org. To deploy and retrieve the codes from LWC, VS Code to org.

Detailed Description: Javascript - Can be done in chrome console by right click and selecting inspect option.

Download VS Code and download all required project manager and java and salesforce extensions. SFDX is compulsory. Click Ctrl+Shift+P to open the command palette and click create project with manifest and click standard. Now create a project folder called 'collegeManagement'. Next to connect to our org. Click authorize org. It will be redirected to the login page. Validate and get in to org.

Changes made in code in VS code can be reflected in org by clicking the deploy to org option and can be retrieved from org by clicking retrieve from source org. Click on the LWC extension and an beta version opens. Here we can create lightning components and can be deployed to the org by deploying it in LWC beta software.

Upload the Screenshot the Milestone / Activities :



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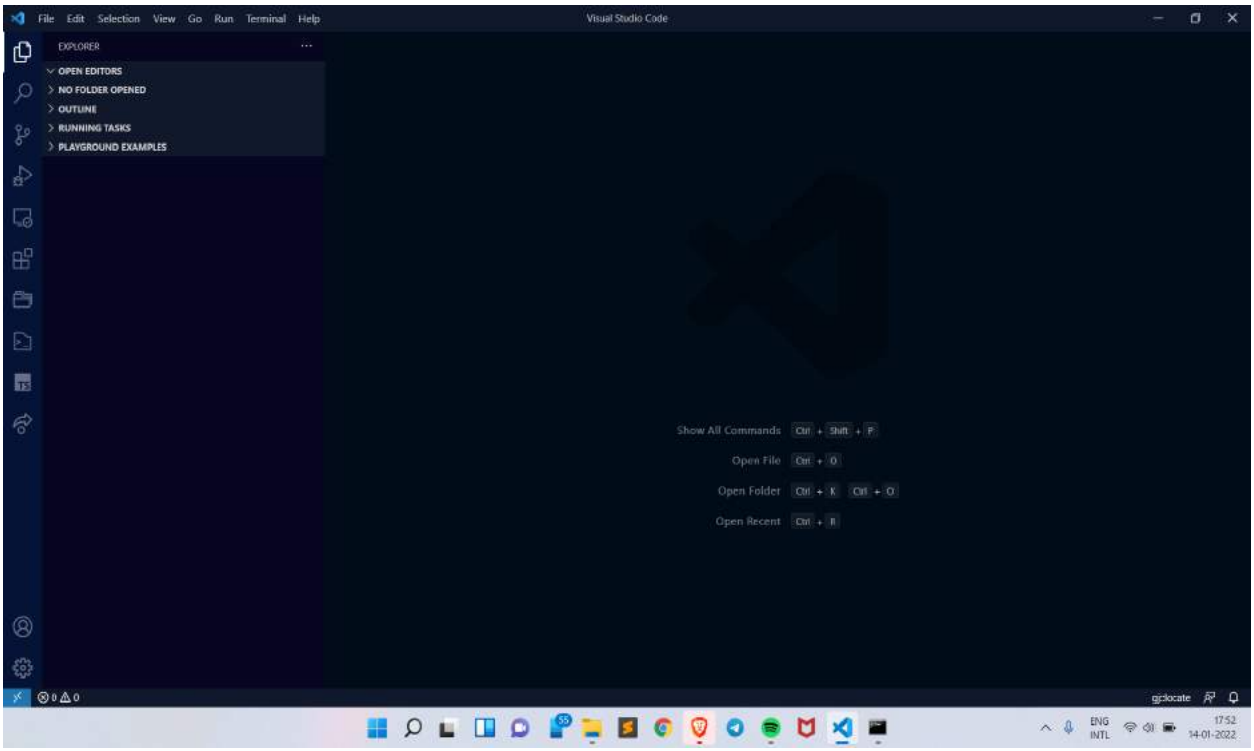

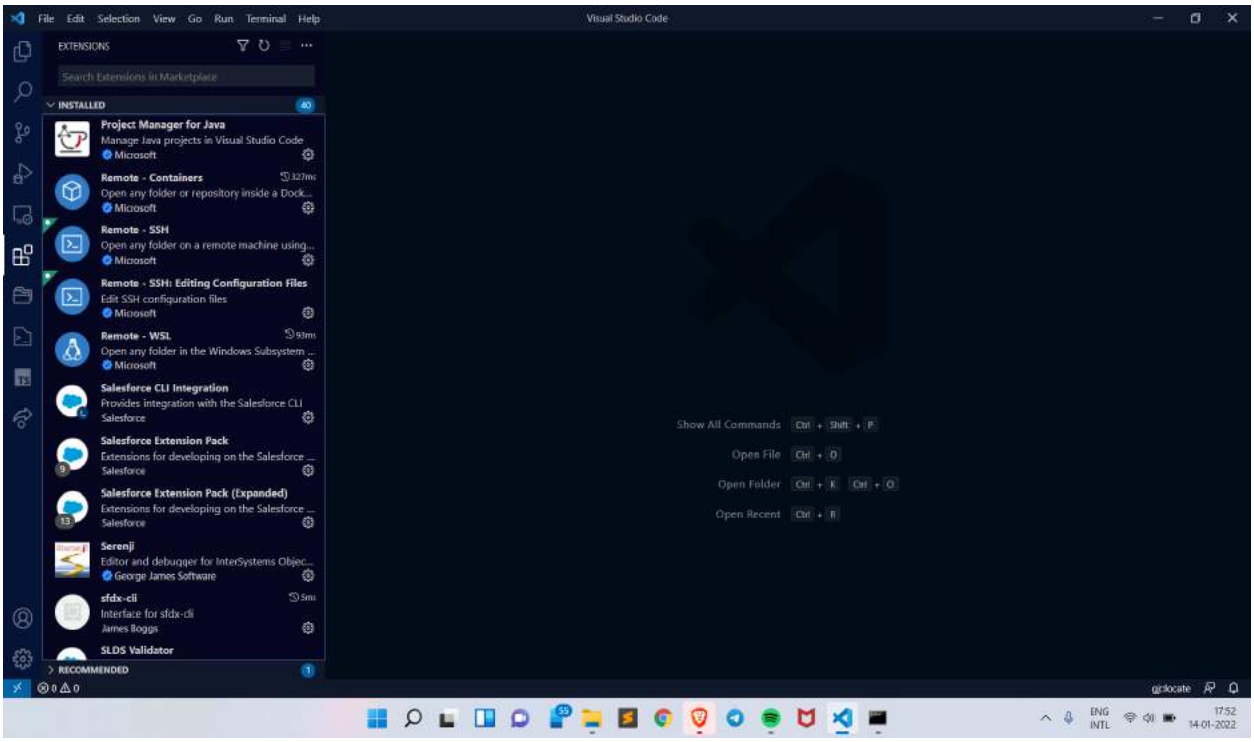

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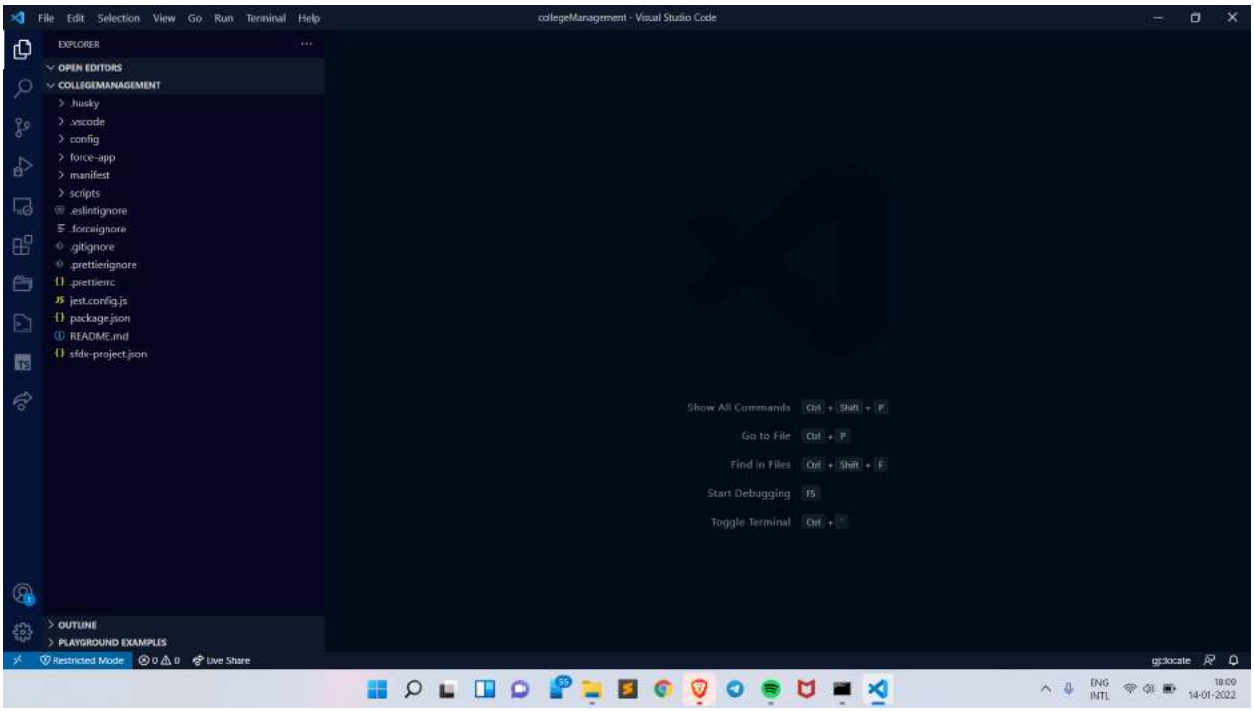

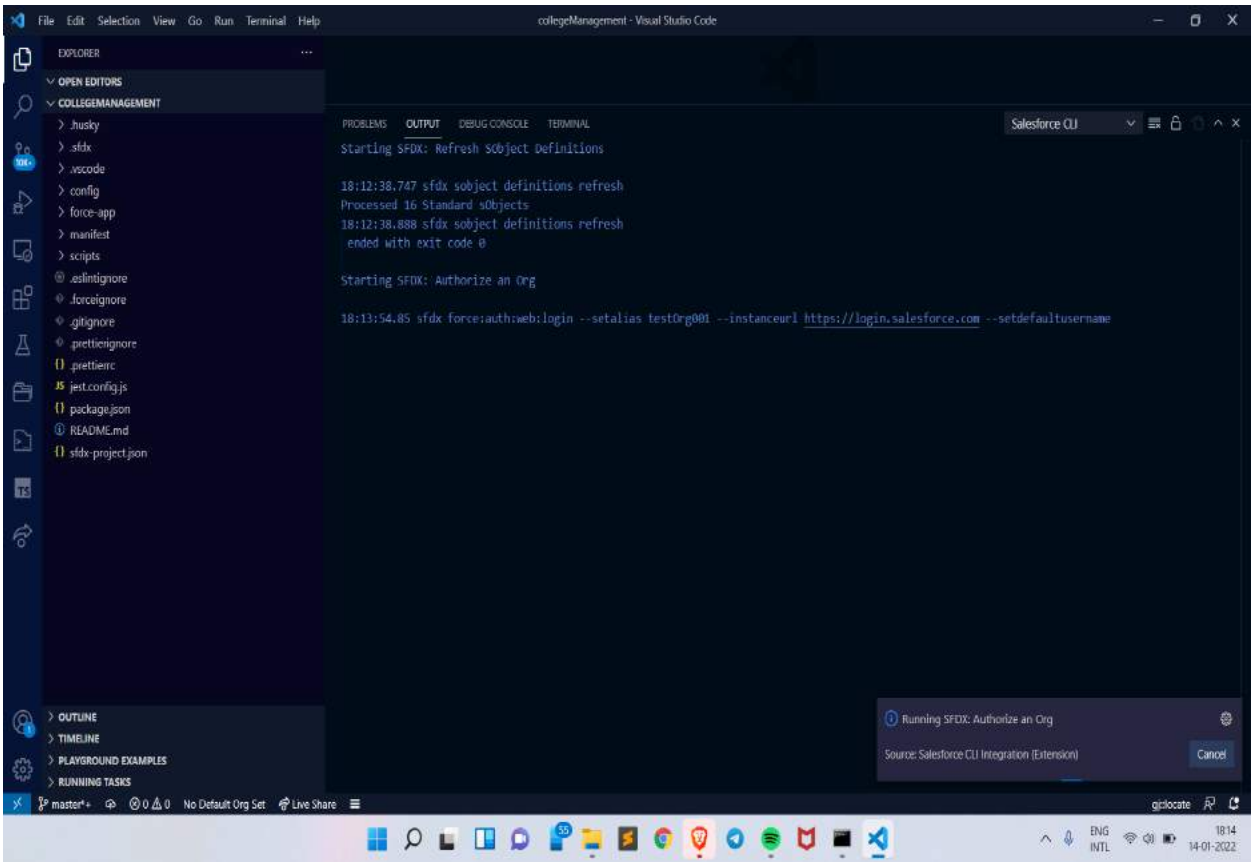

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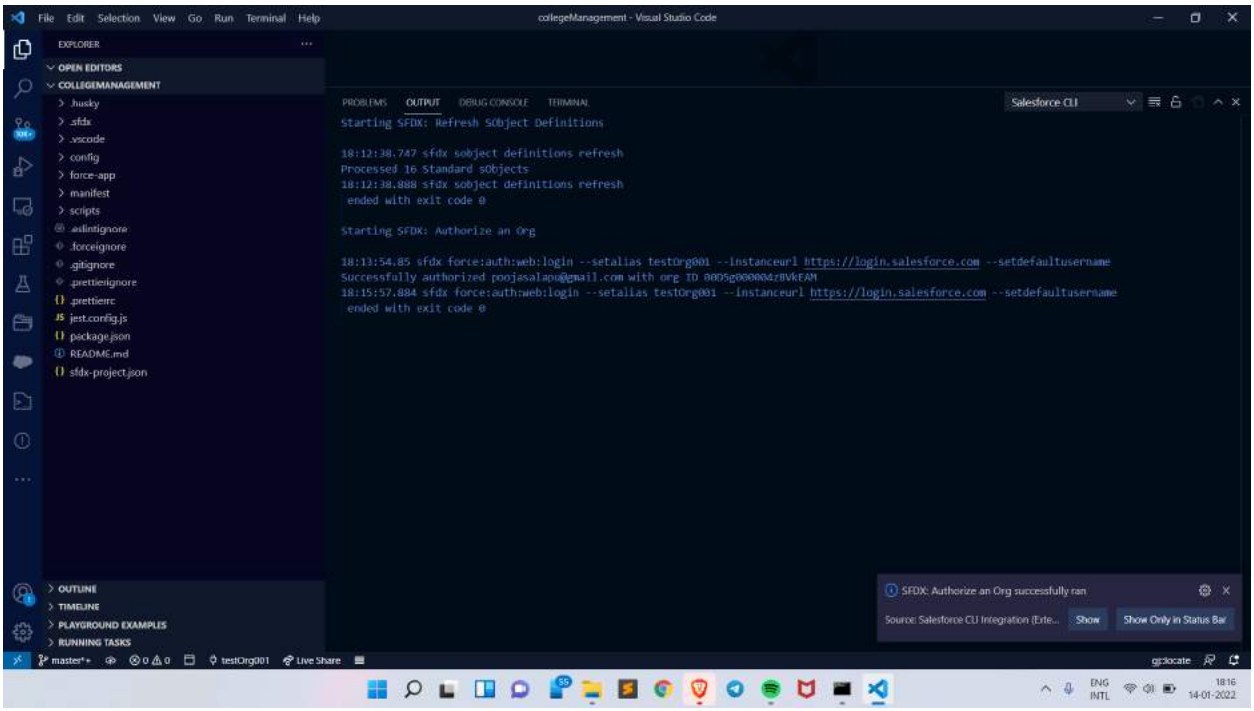

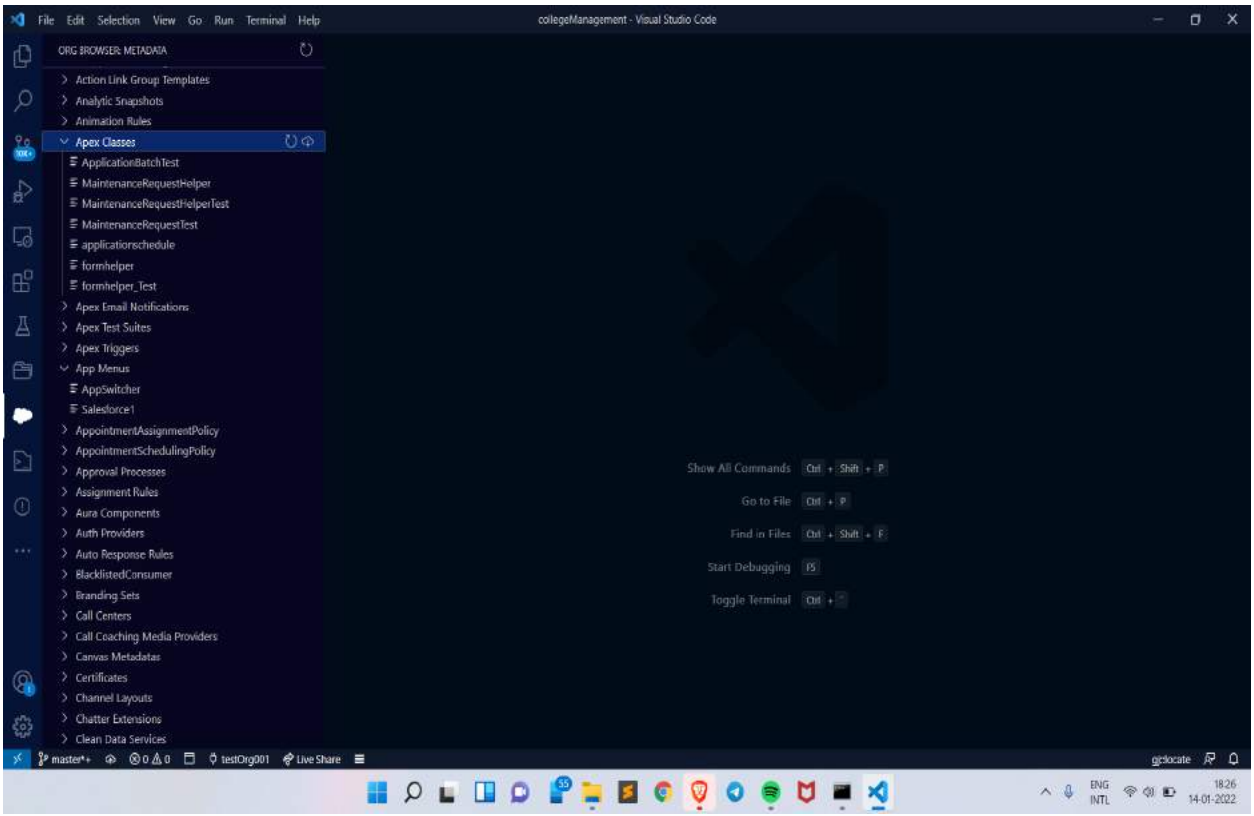

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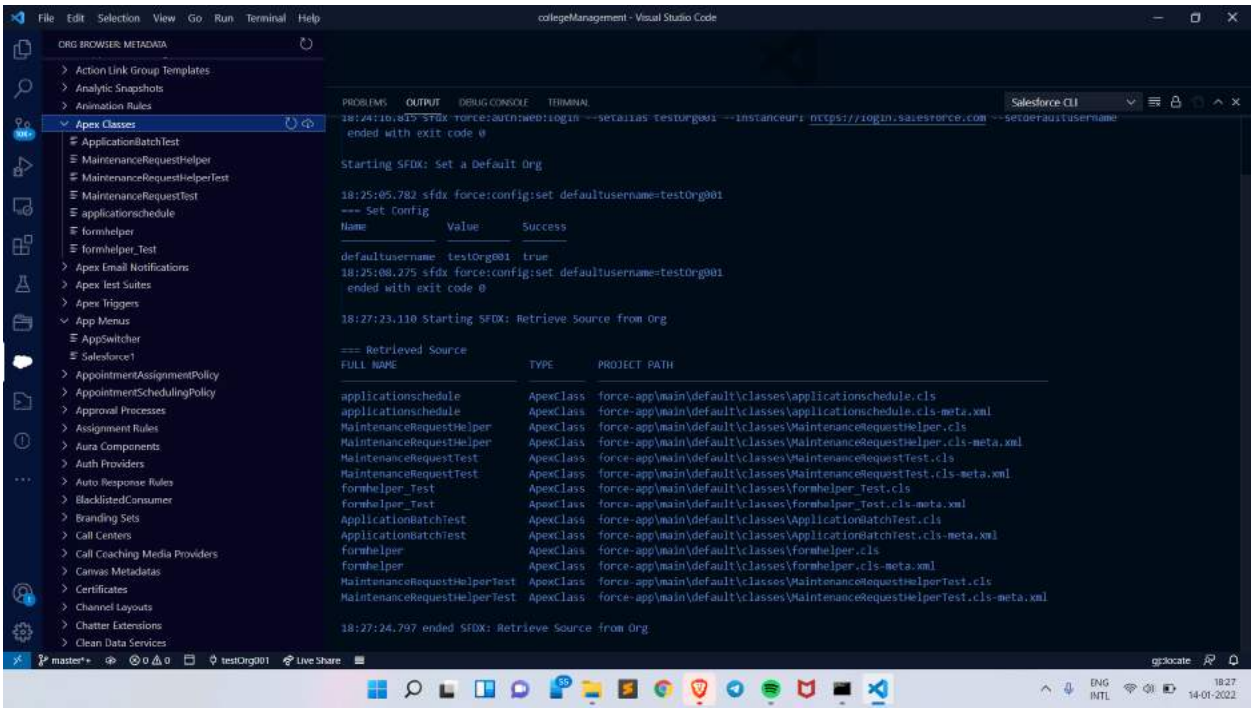

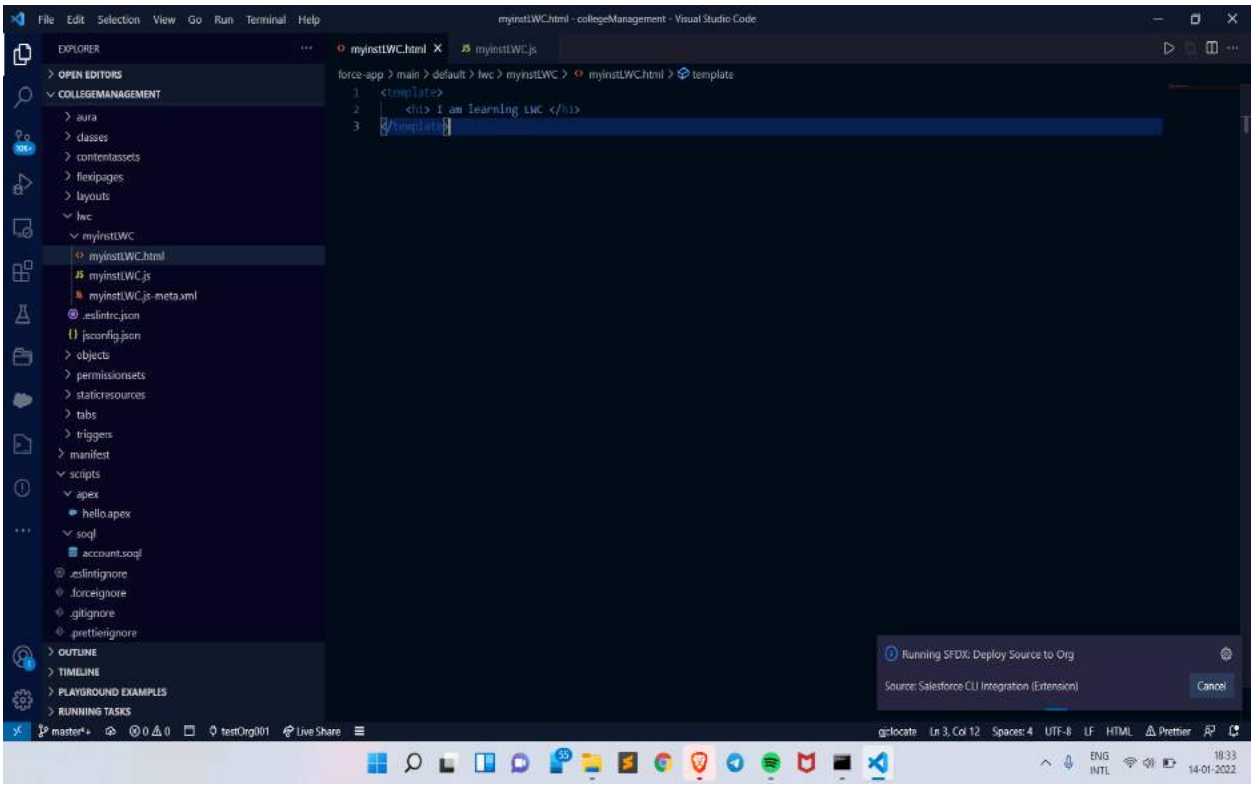

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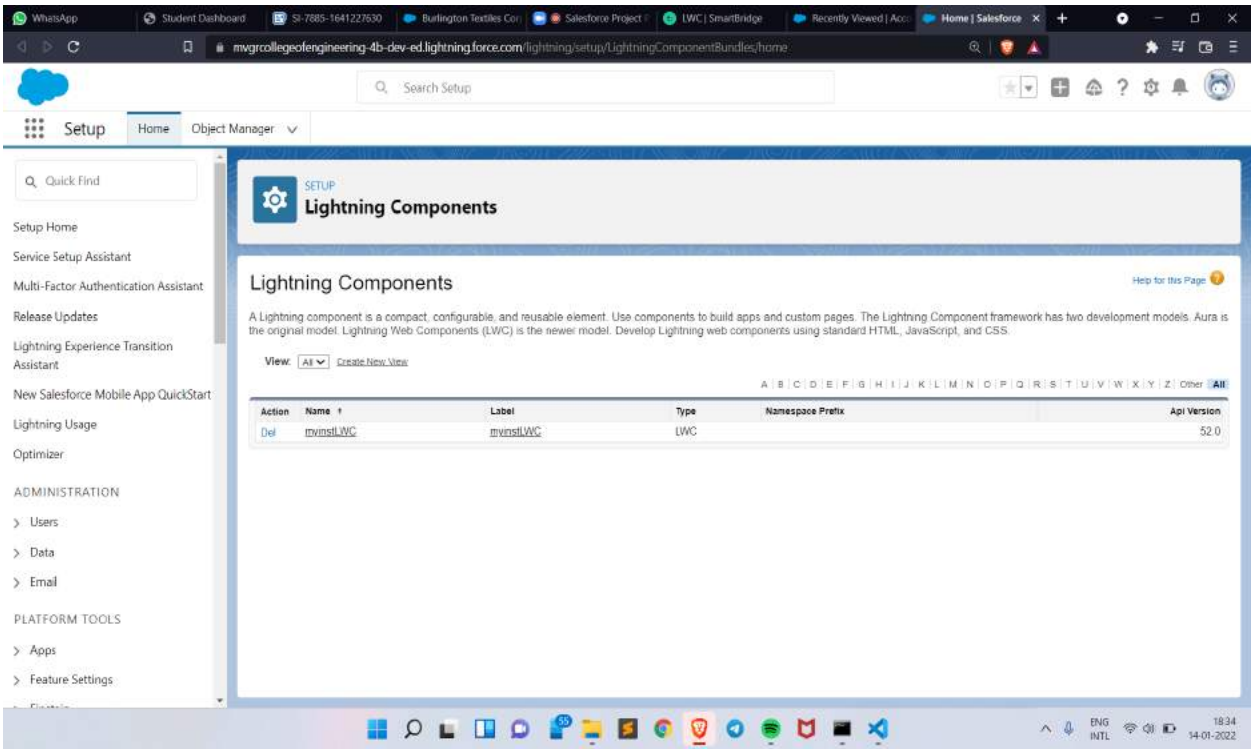

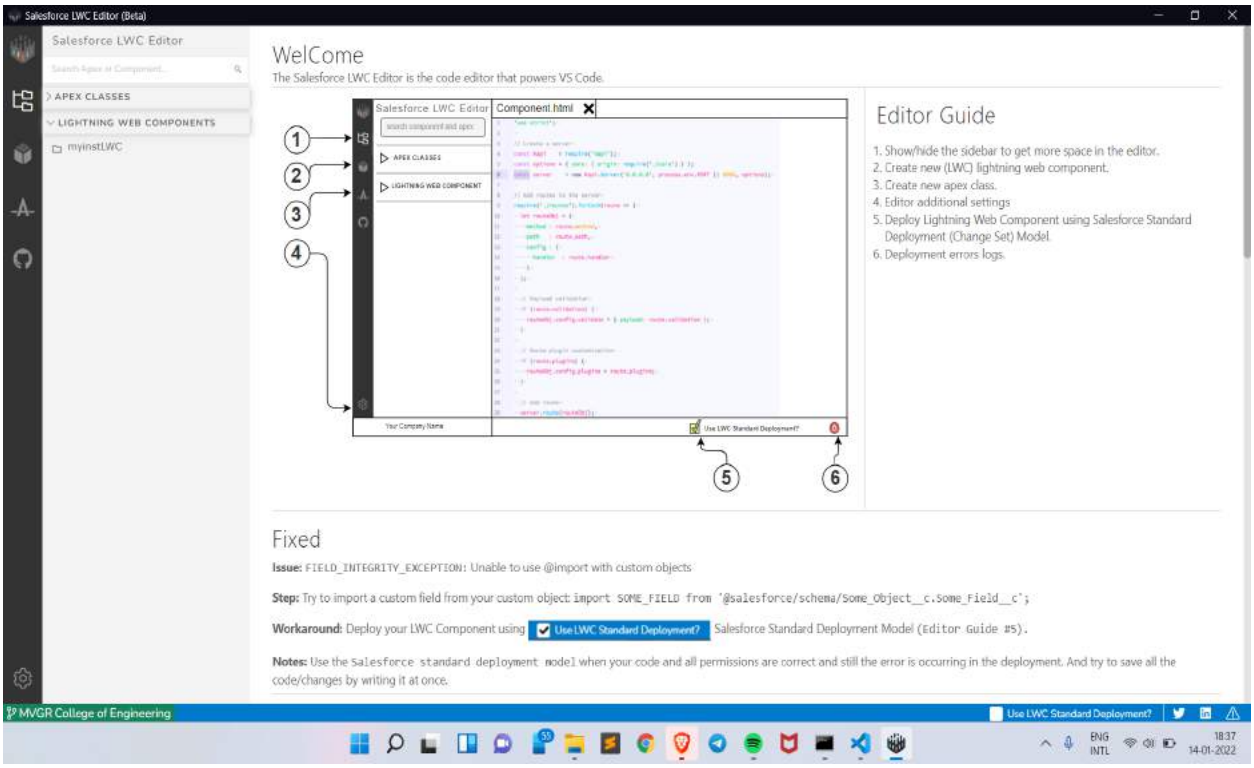

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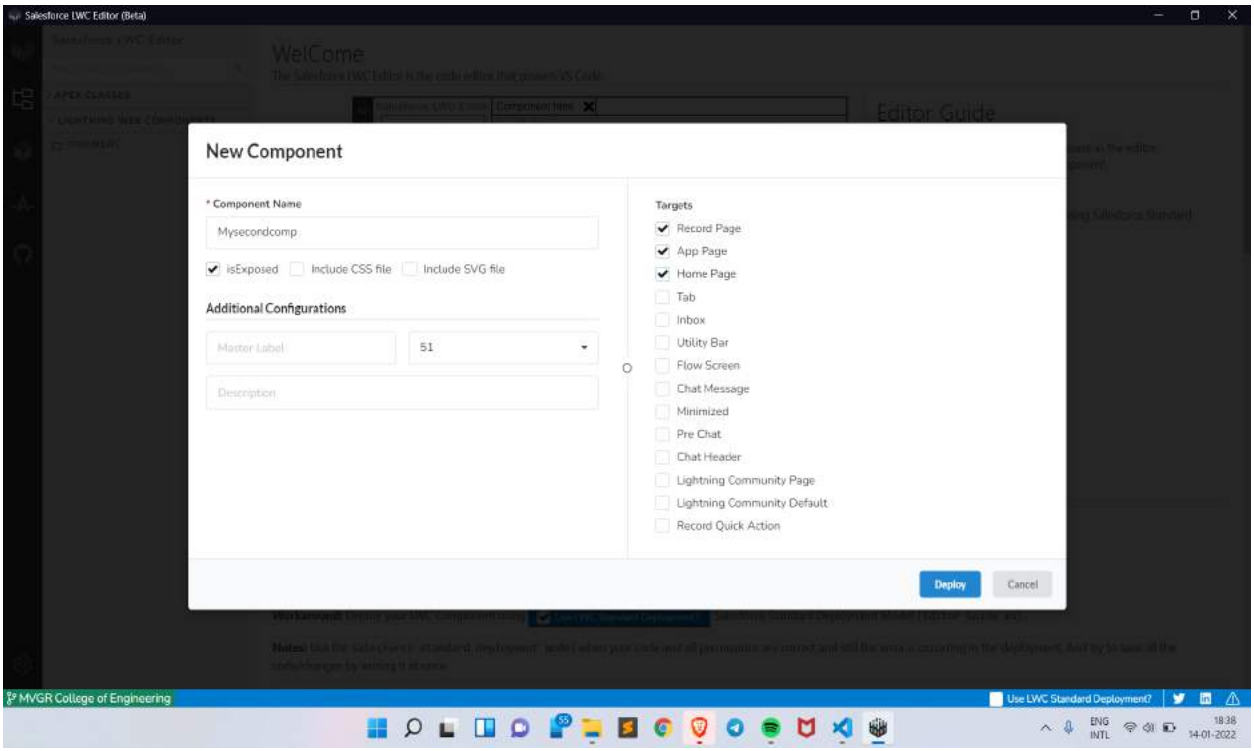

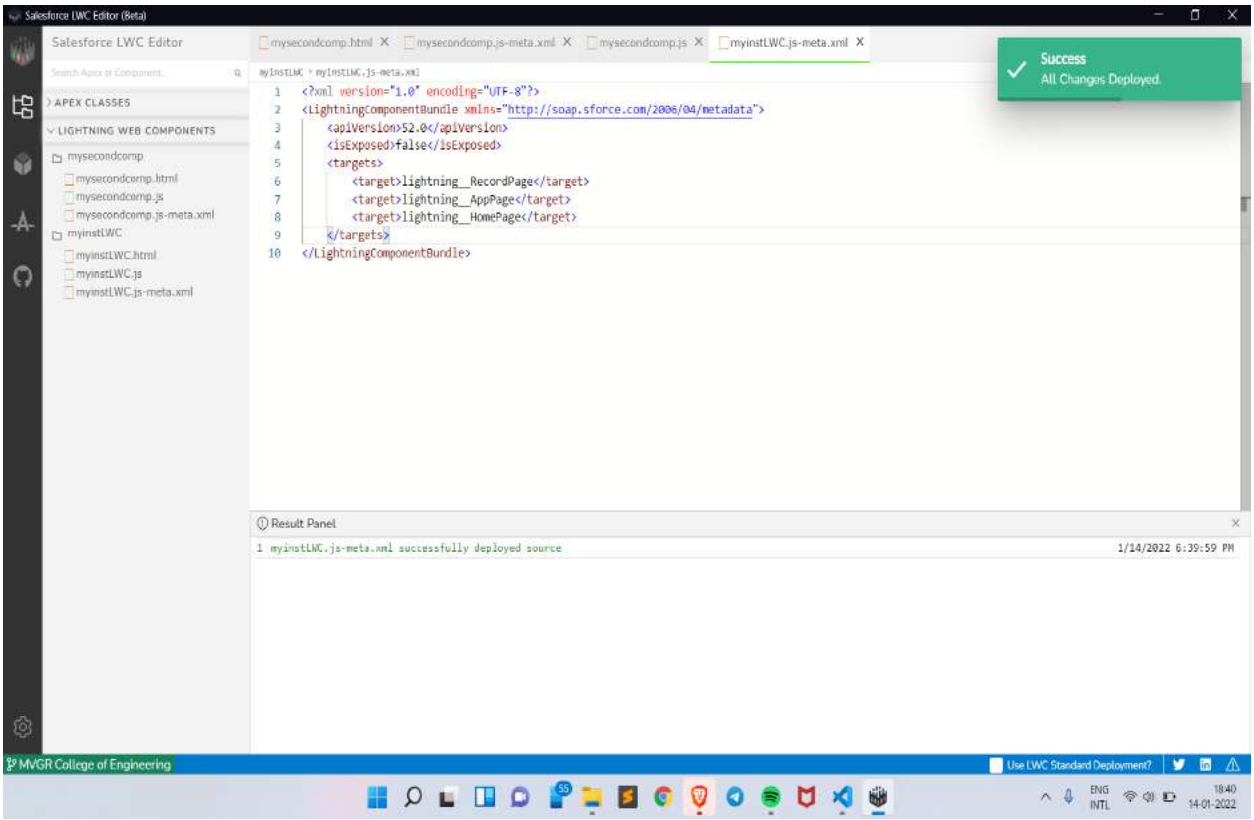

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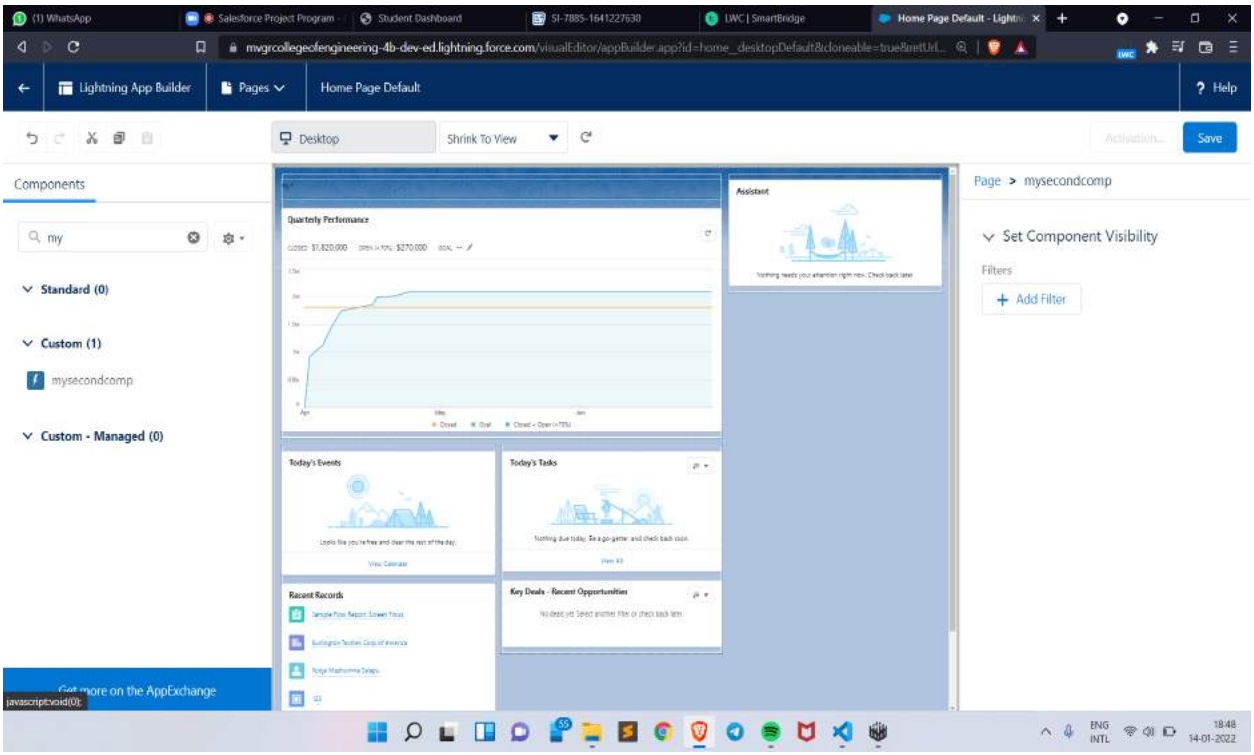


Day 9 :

Topic: Javascript functions, Lightning web components

Milestone / Activities: To create lightning web components and update from vs code to org.

Detailed Description:

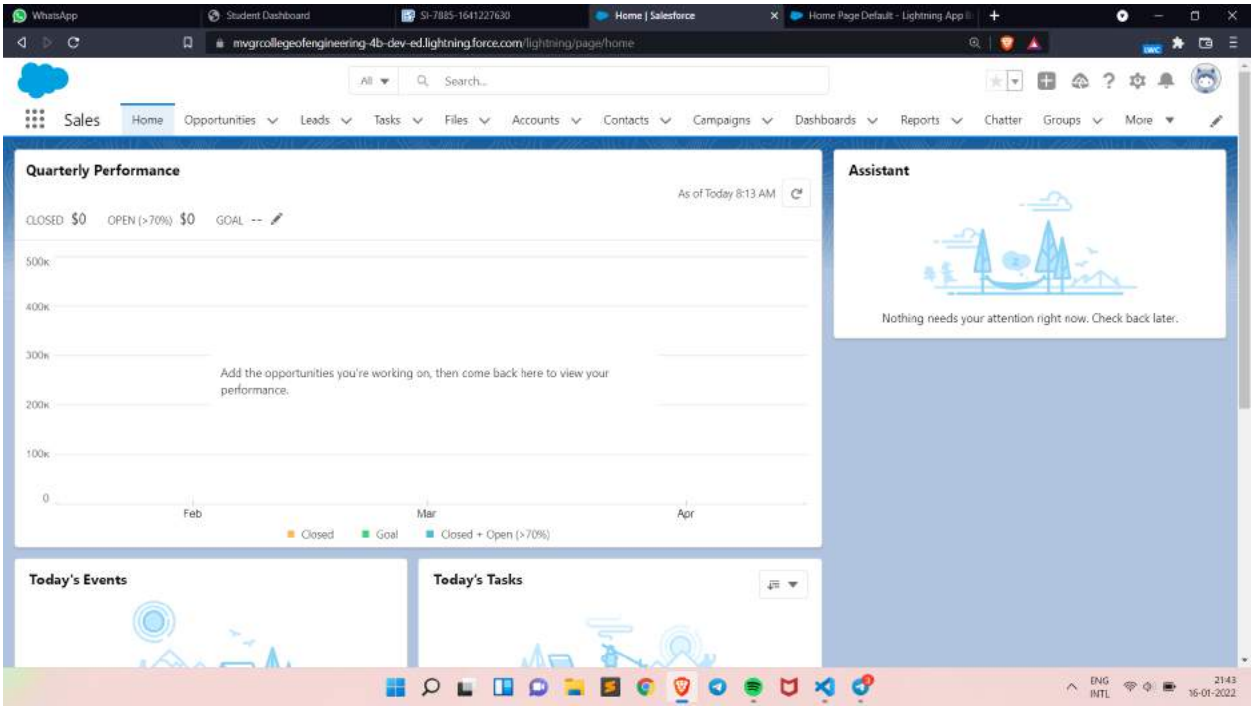
Open vs code and create a lightning web component and deploy them to the org. In the setup page of salesforce, go to sales and click on home tab. All the changes can be seen when the components created are added in lightning web builder.

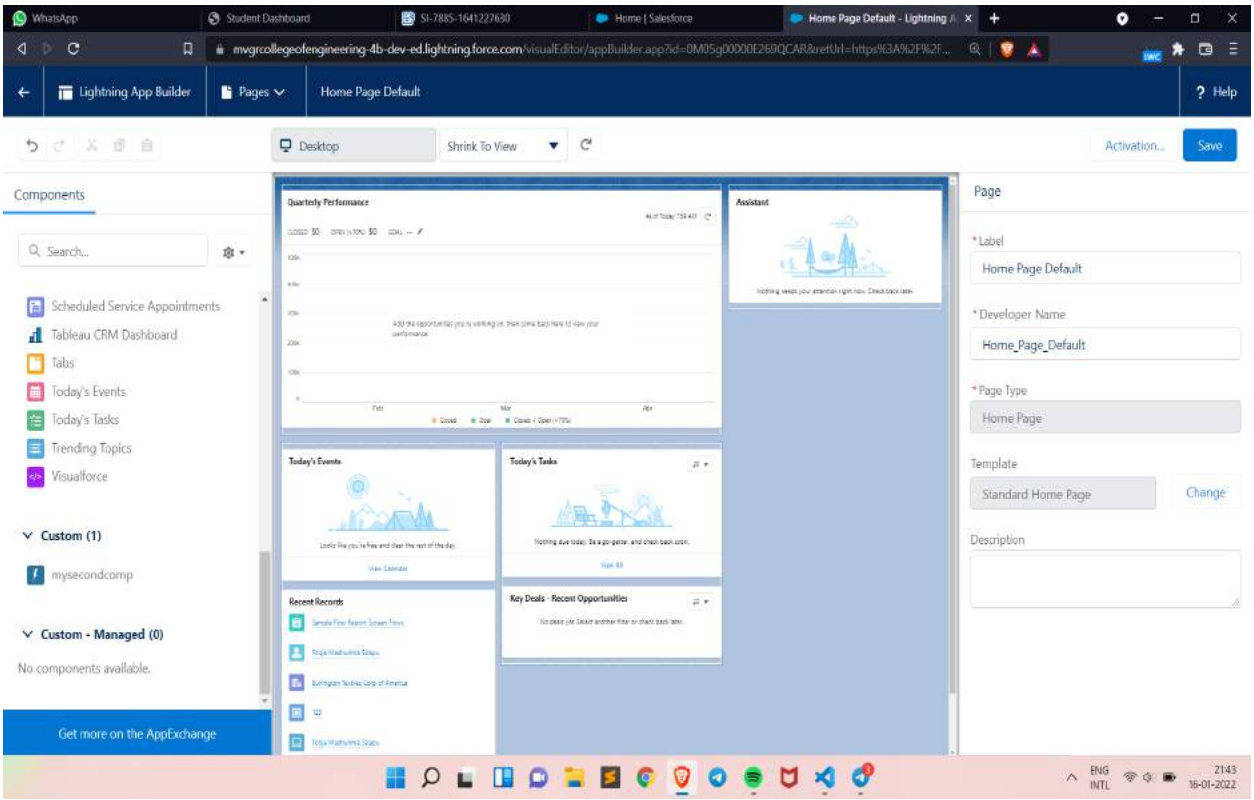
To add the component, drag the component to the area in the lightning builder page and activate it. Then the changes can be seen in the home tab.

In the code, we can add html,js, and css pages. All the properties of html,css and js can be used. Javascript functions are also used usual. The meta file will contain version and <isExposed> tag as true to be able to make the component visible in the workspace.

PROJECT REPORT

Upload the Screenshot the Milestone / Activities :





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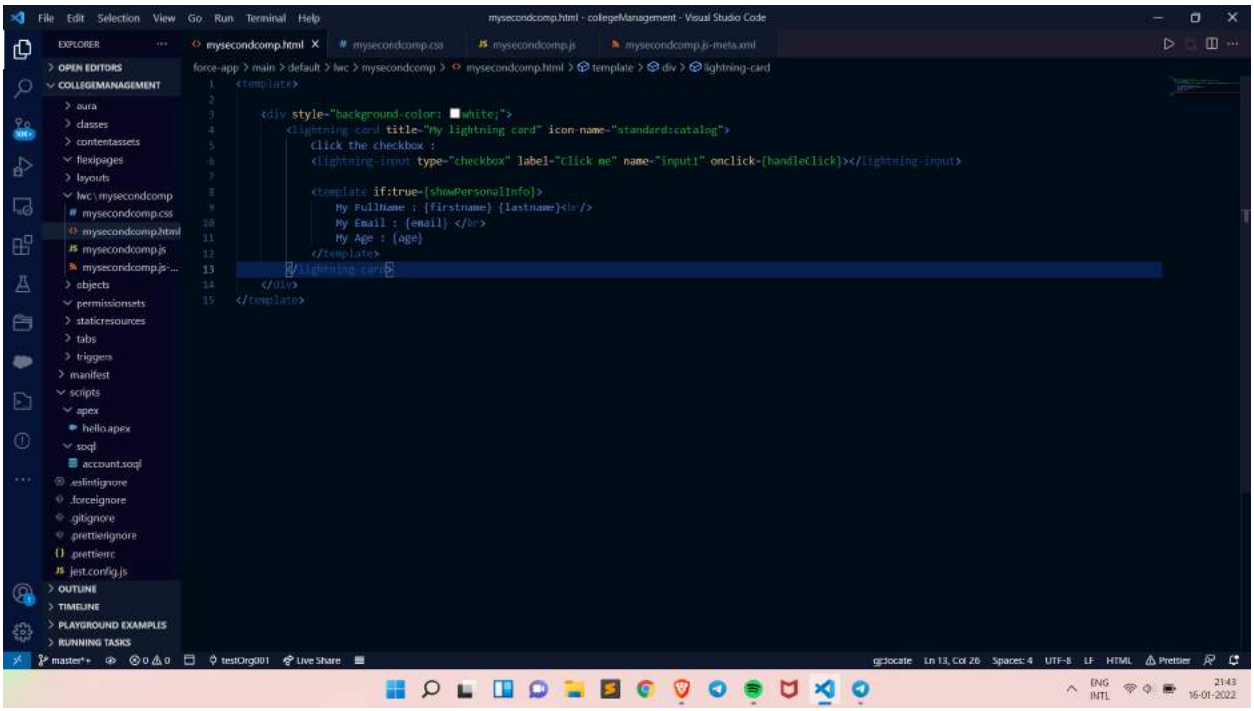

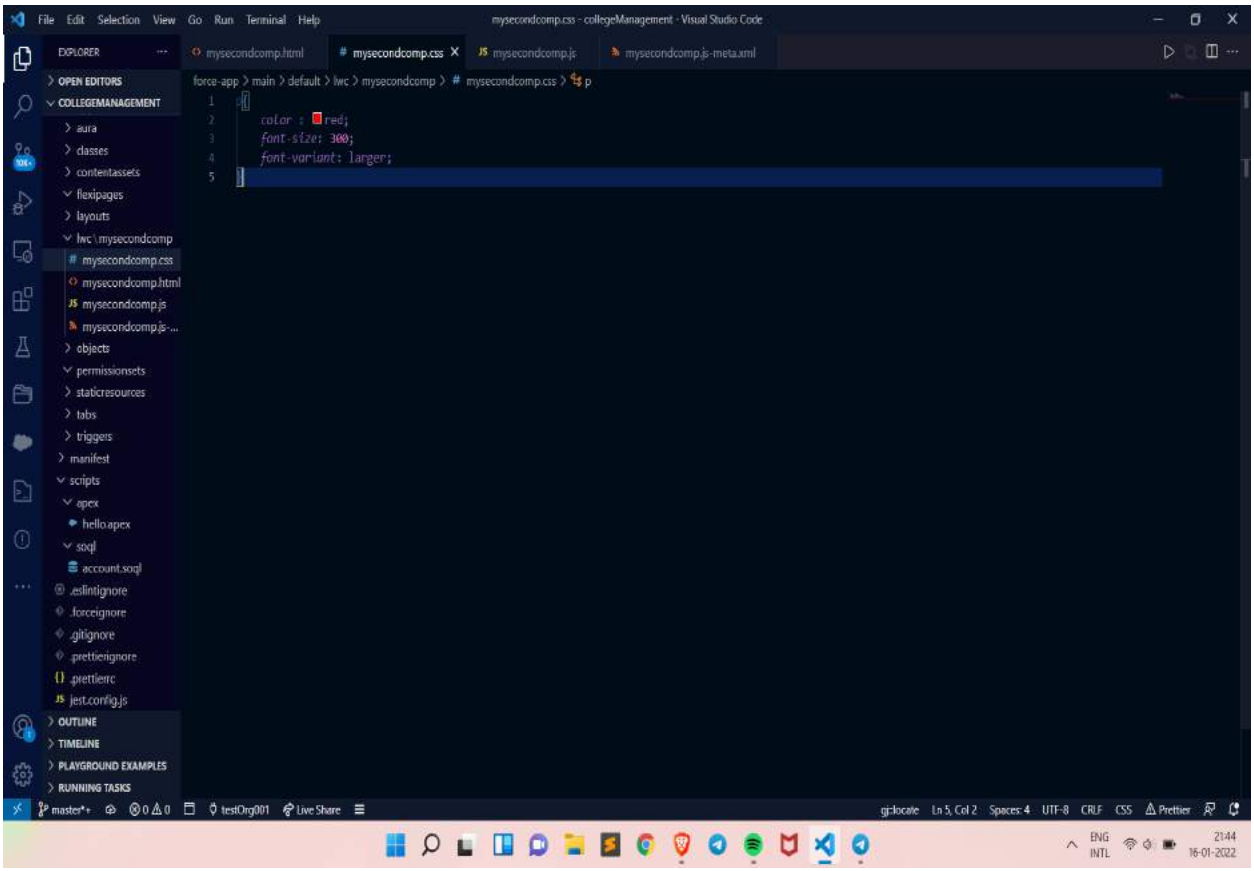

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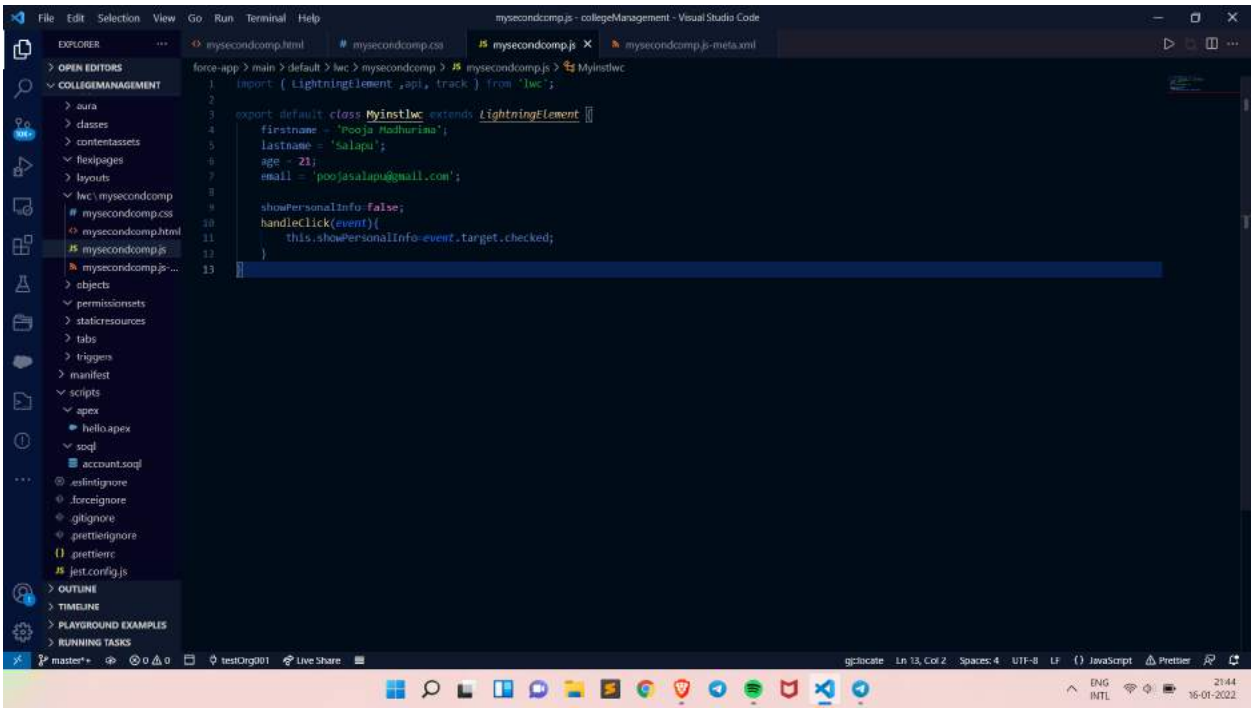

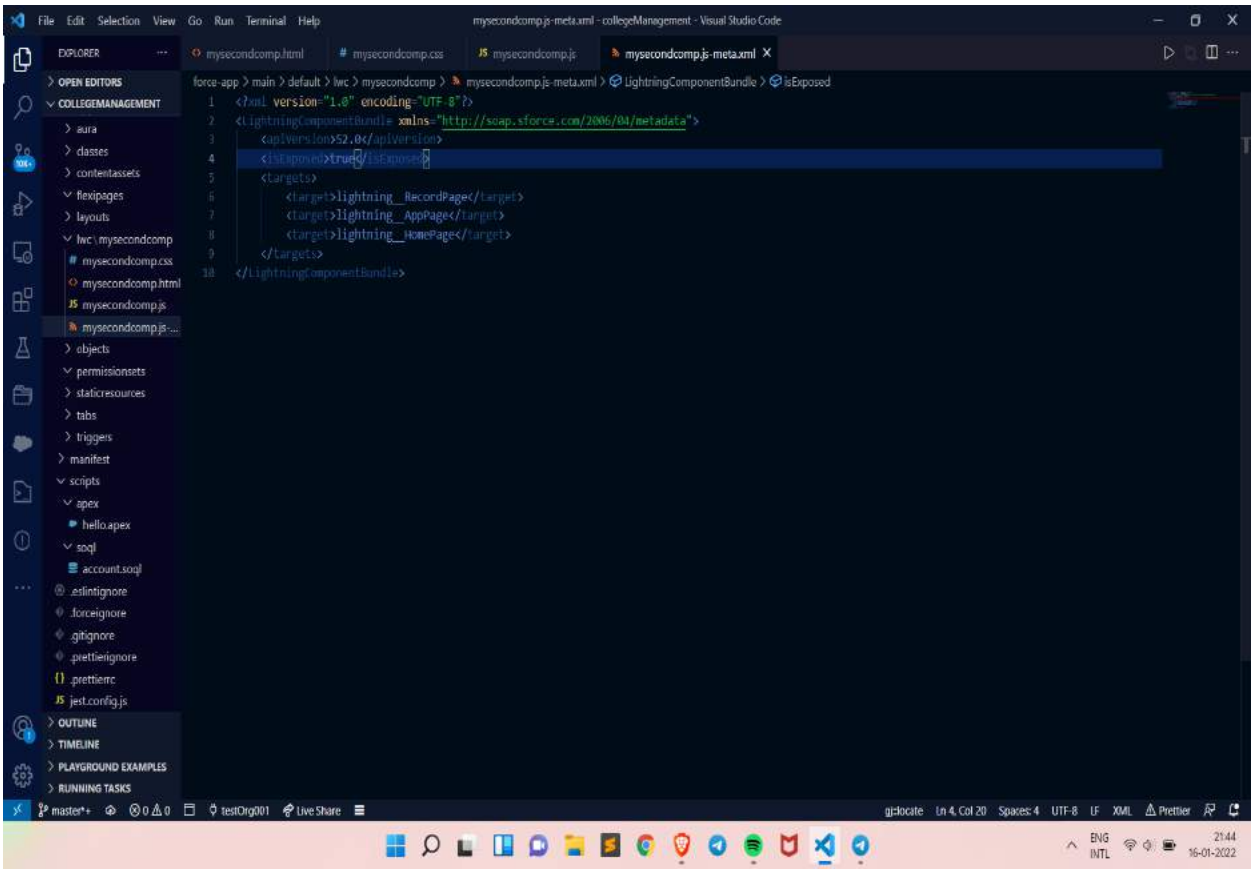

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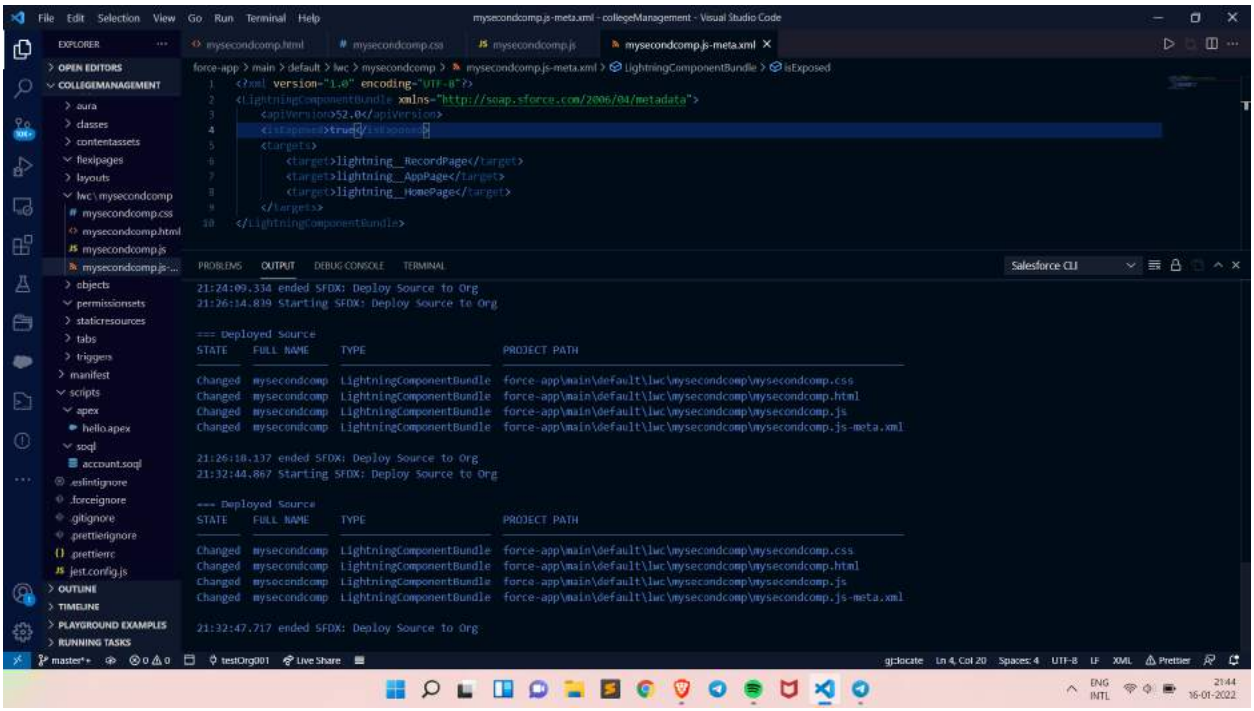

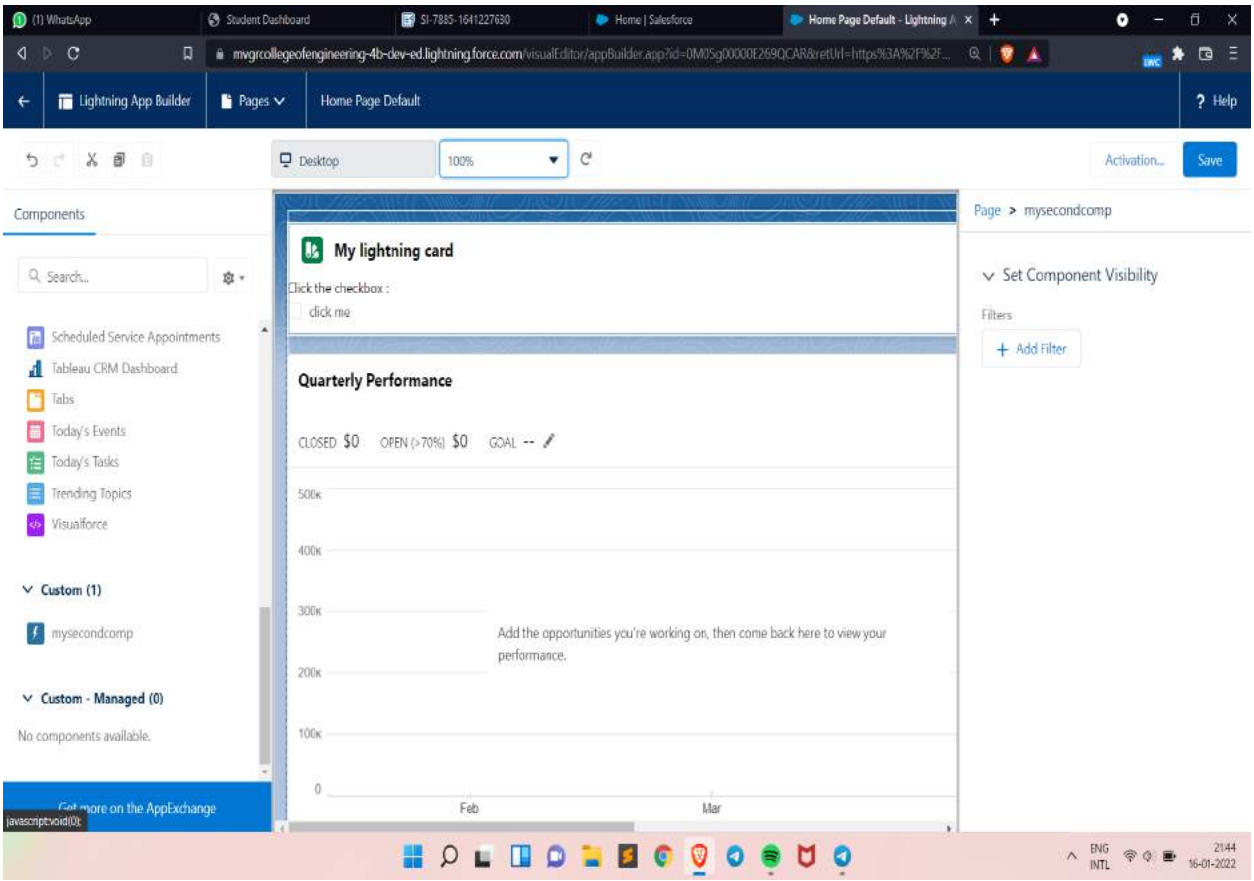

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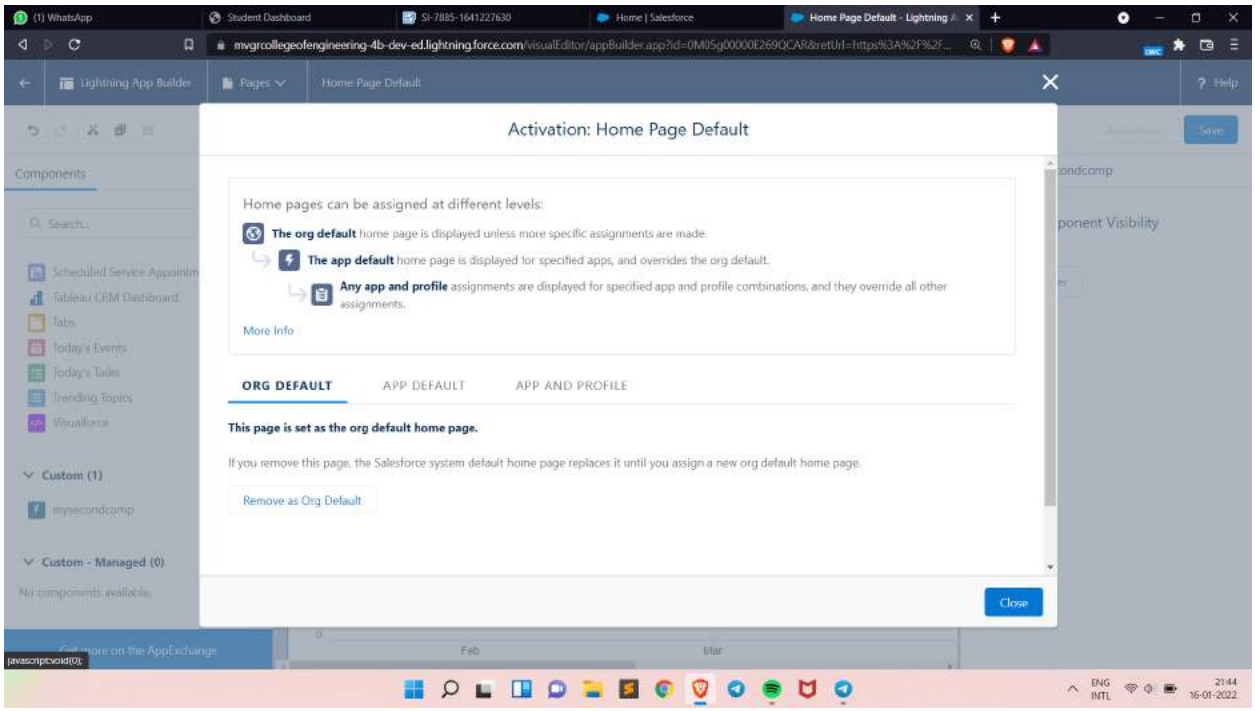

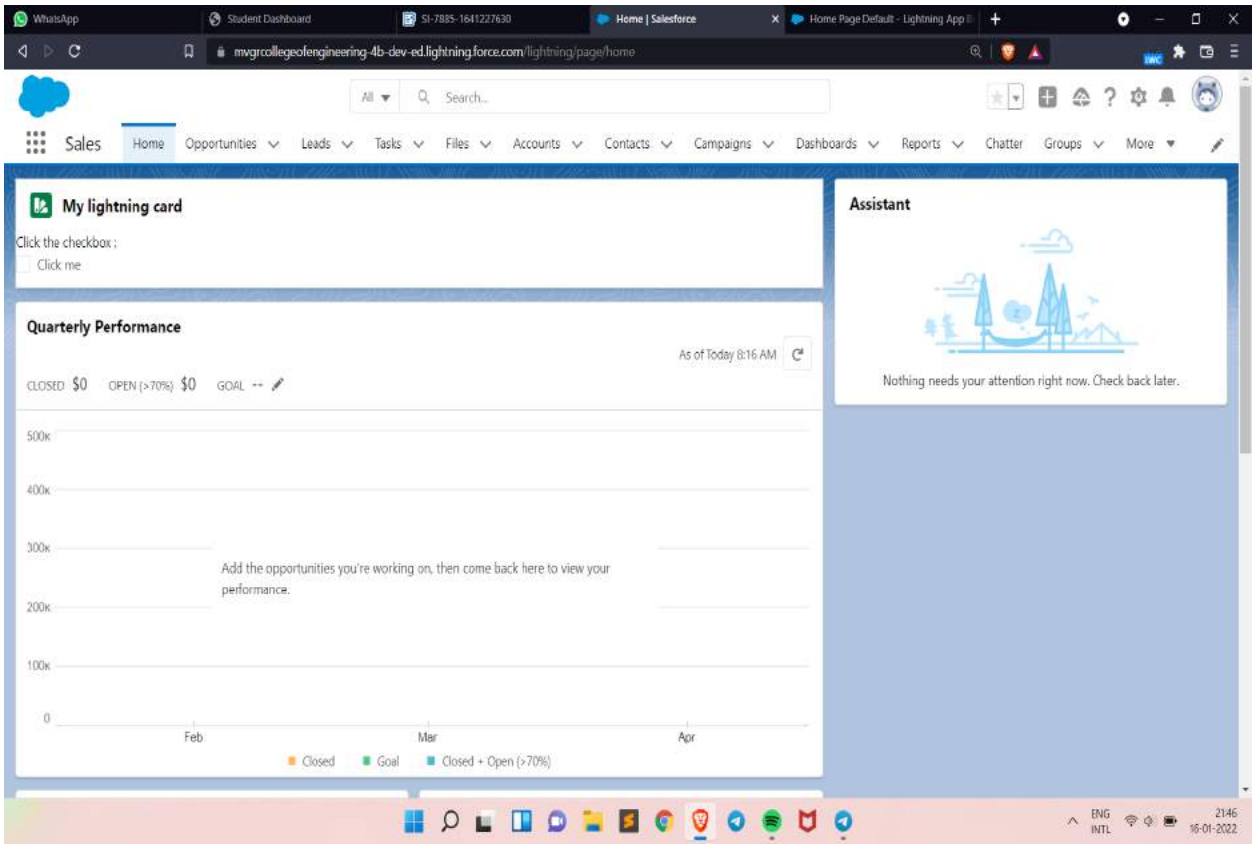

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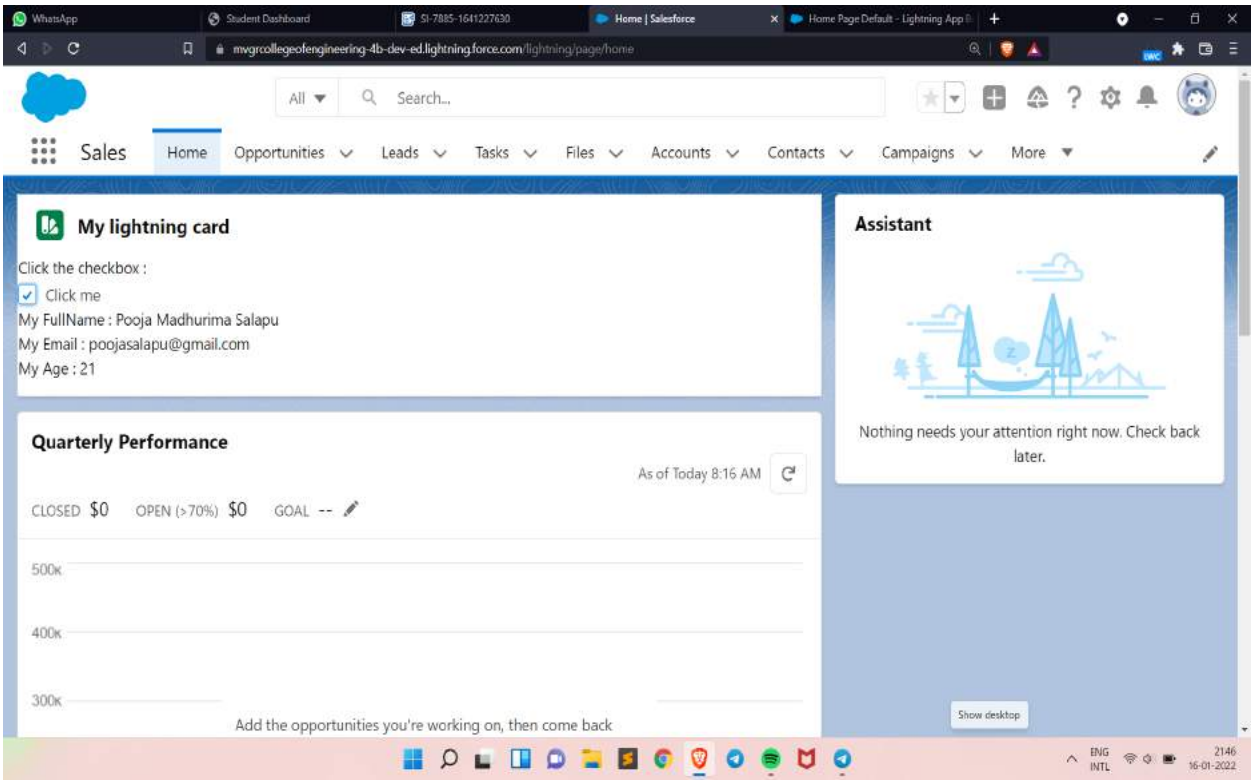

Day 10 :

Topic: Lightning Web Components, iterators and table forms from lwc and apex classes.

Milestone / Activities: To know how to create iterators (for-each loops), child components and parent components and other attributes and deploy it to org. To create a collegeDataTable(html,css,js,and meta file).

Detailed Description: In vs code, create listIterator LWC and we can implement iterator. And another child and parent components which are interconnected. Here the example we did is the string typed being changed to uppercase.

There is another function implemented here which is to search a contact by creating a lwcapex component. Here we used searchcontact functionality and we can see a message called "Button Clicked" whenever we click on search contact button. To see the message, on the web page right click and click on inspect and we can see the message in the javascript console.

Here we are going to create the college data table, for this we need to create an apex class, from which we are going to retrieve the data and Html, javascript files for UI.

This datatable will reflect in our org when deployed. We also used target as blank and made our form data as a hyperlink. When clicked on the link, a new window opens up

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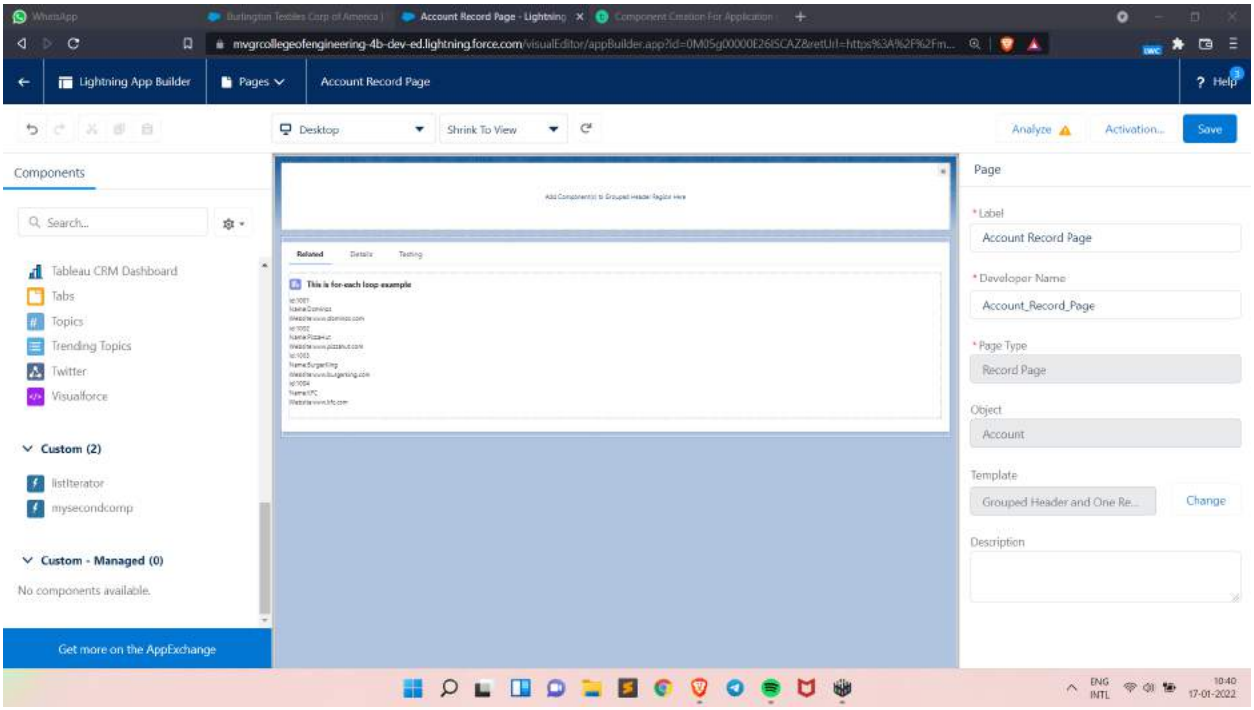
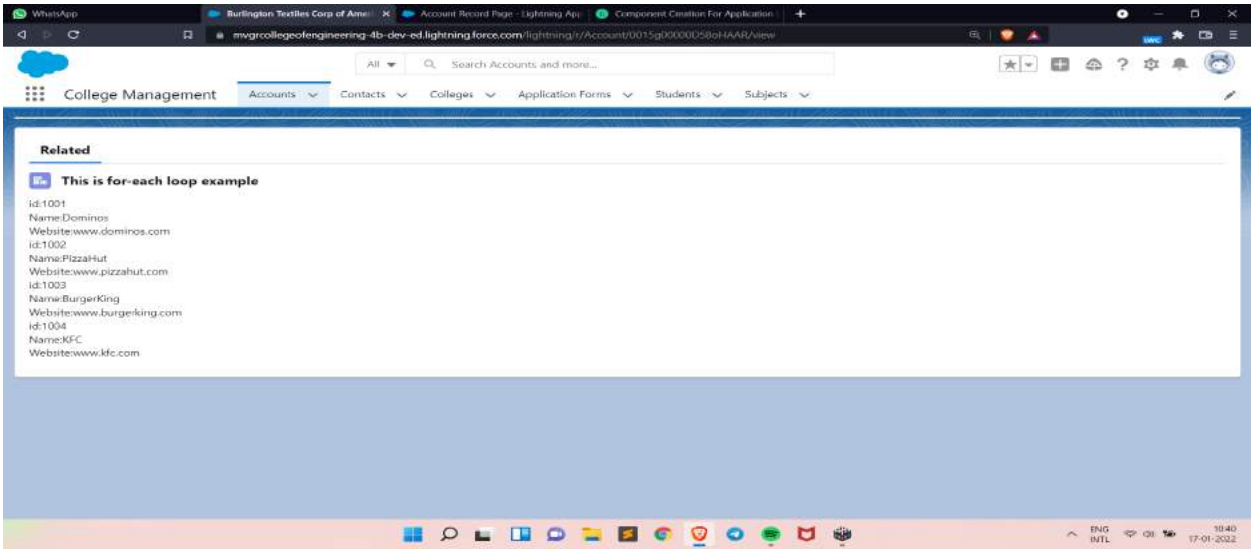
and the details of that college will be displayed.

As I didnt create the data before I couldnt get the data reflected in org but the data can be seen in the org.

Upload the Screenshot the Milestone / Activities :





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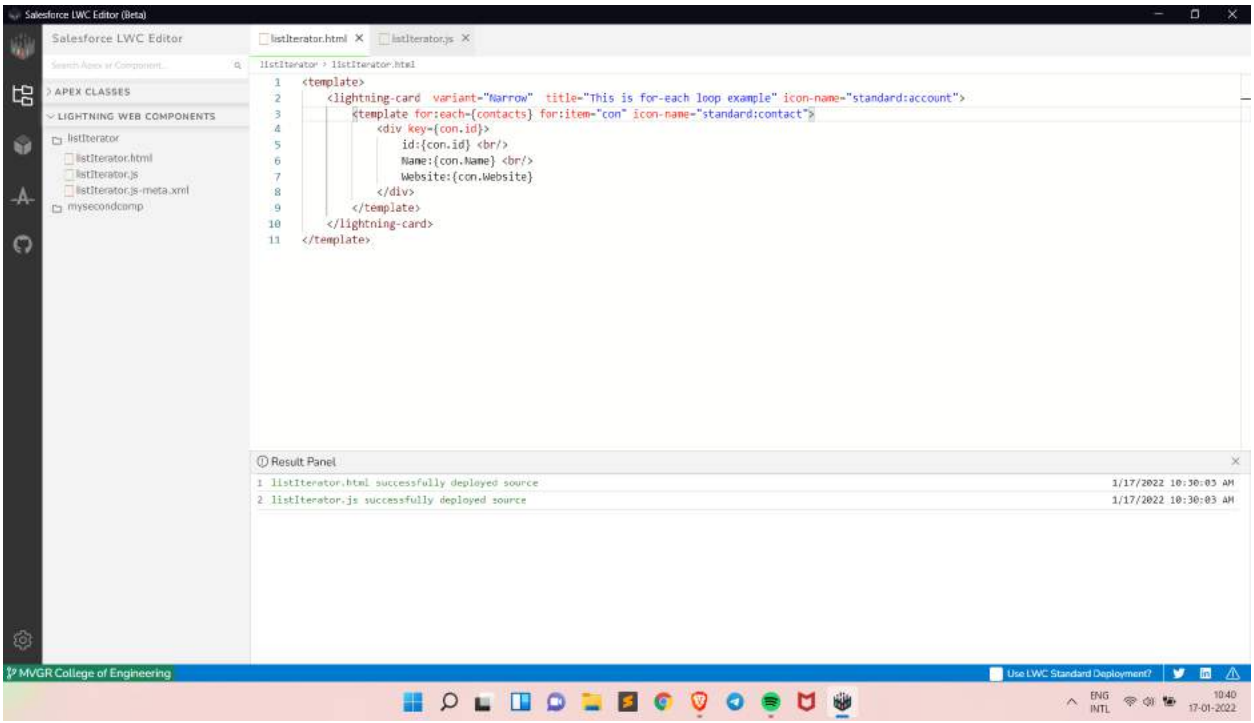

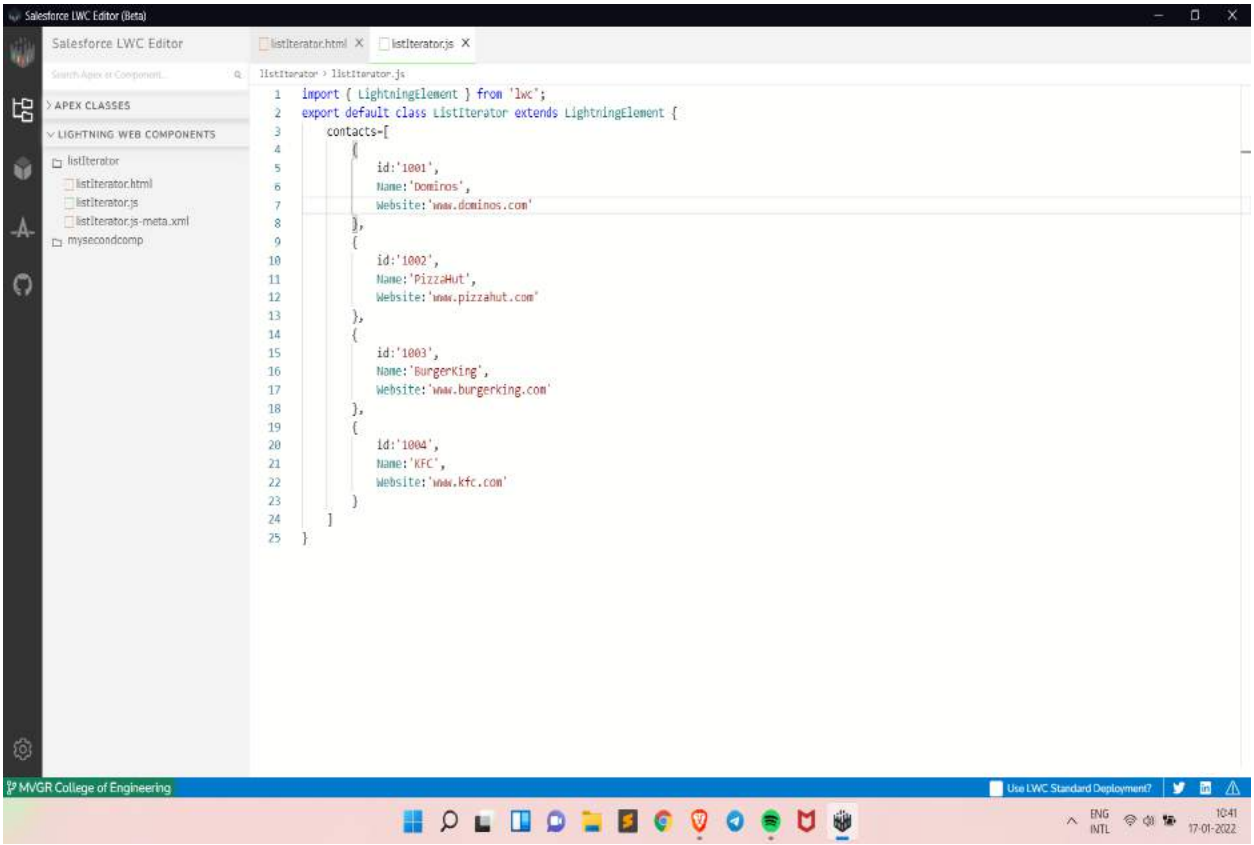

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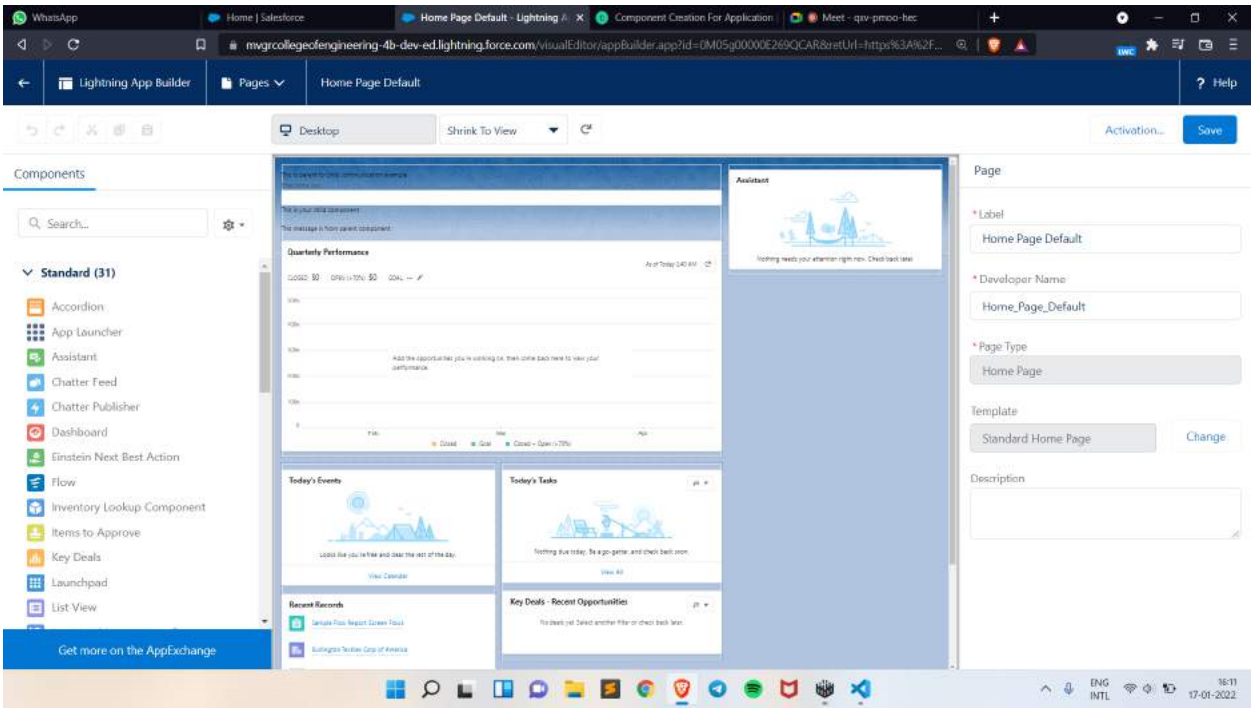

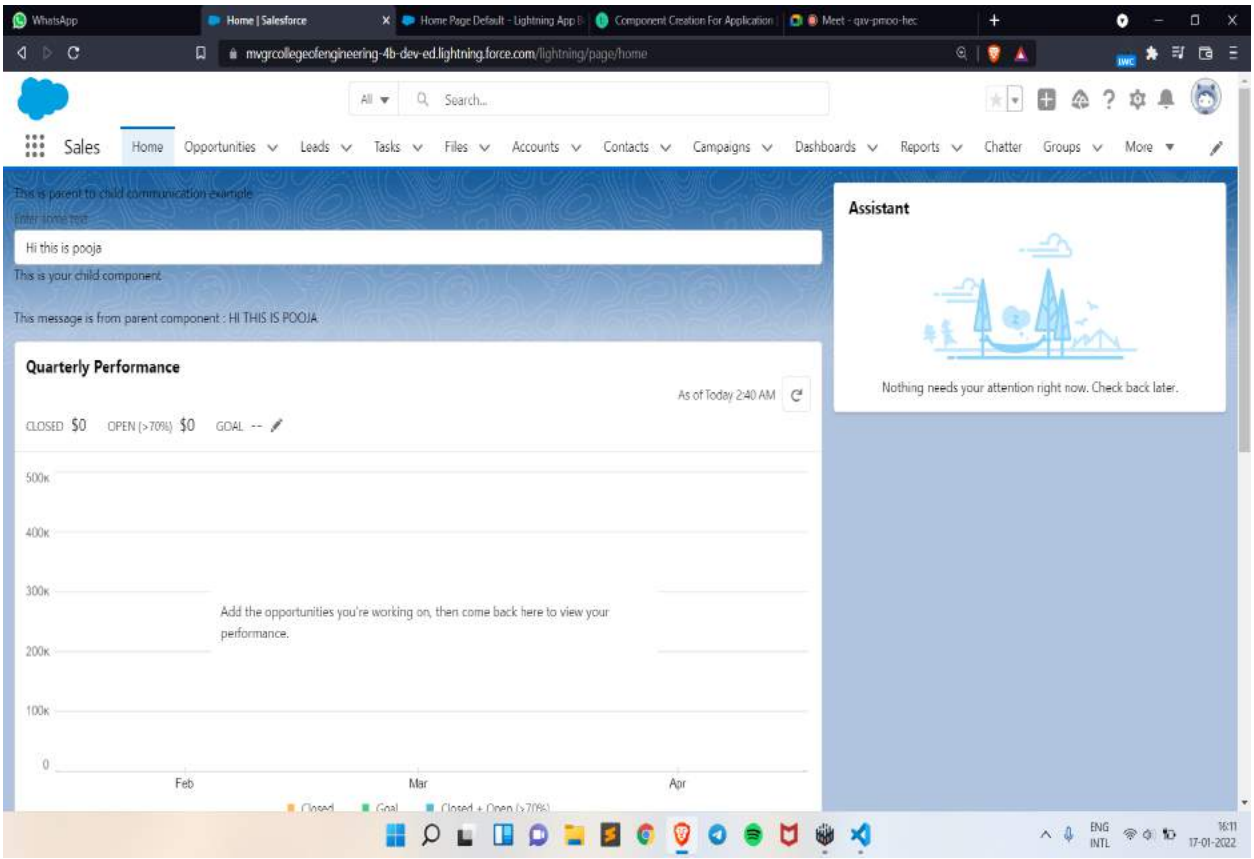

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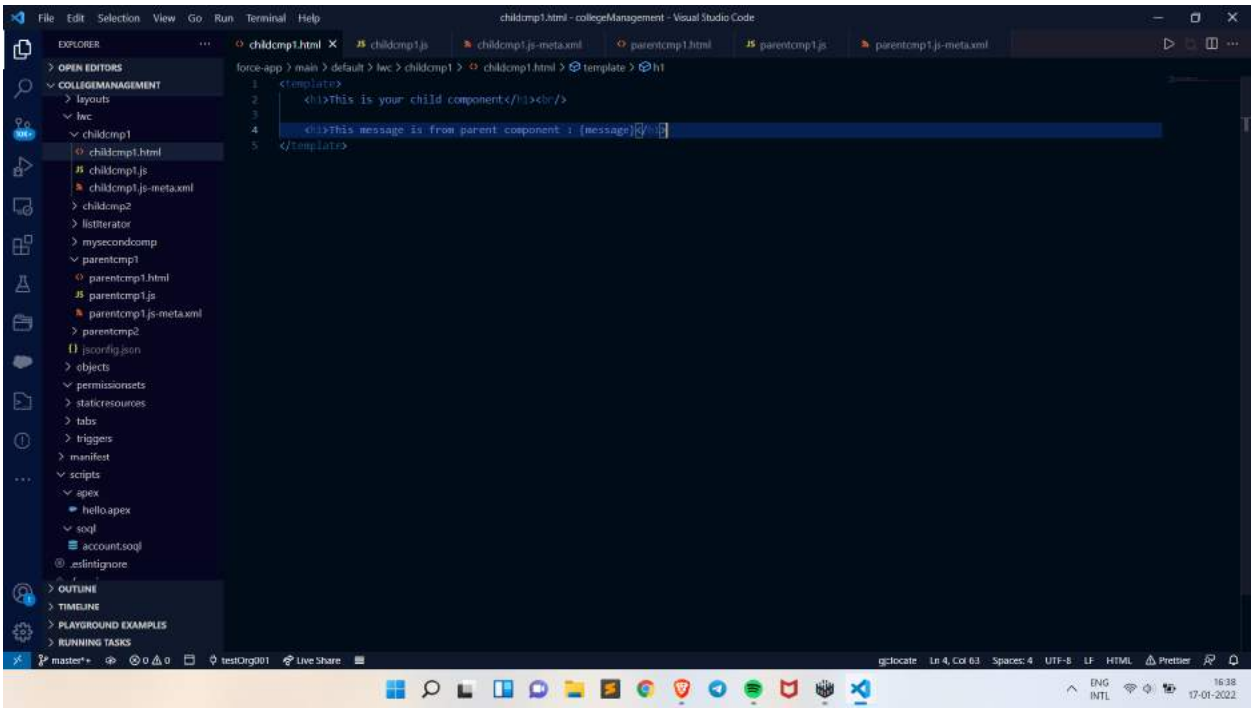

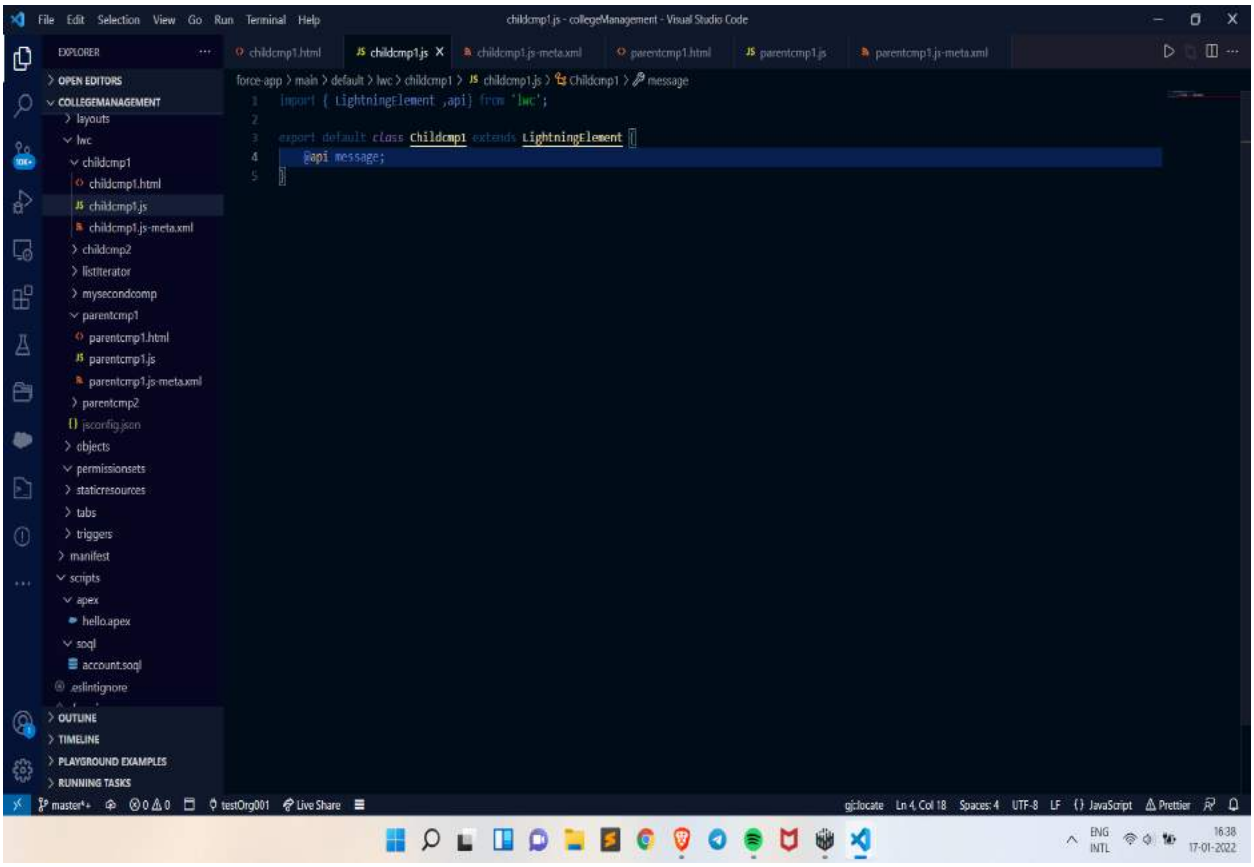

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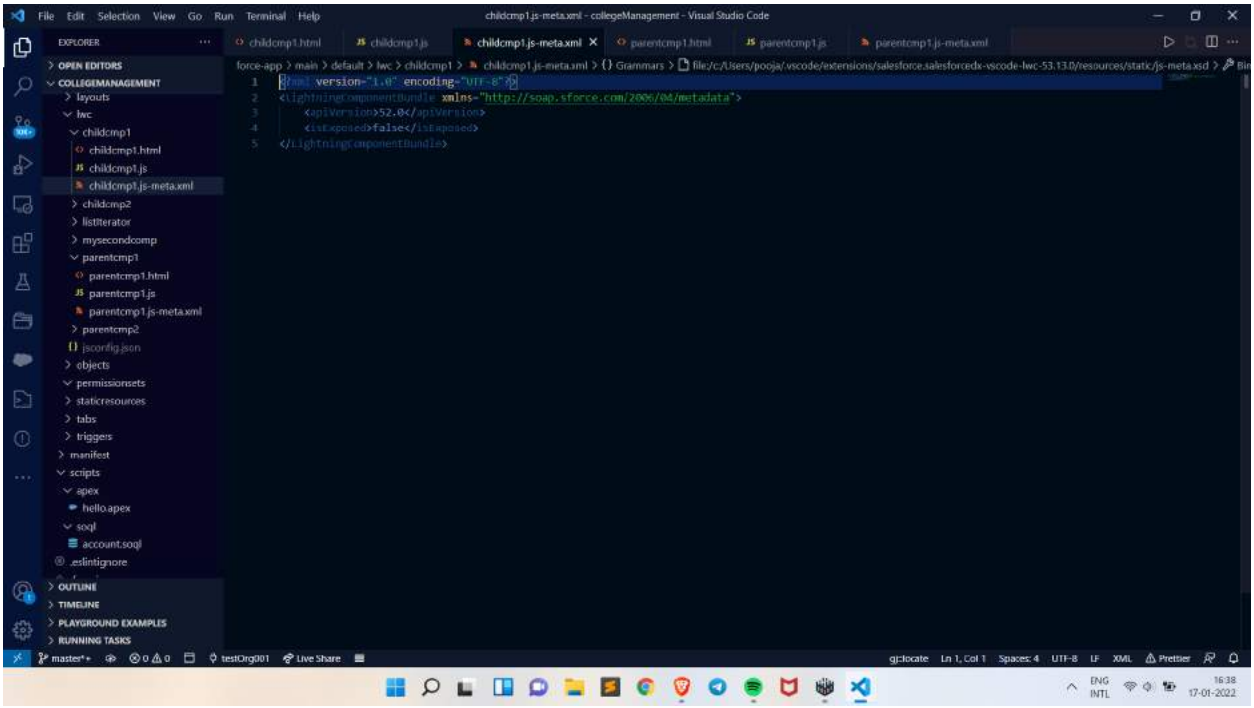

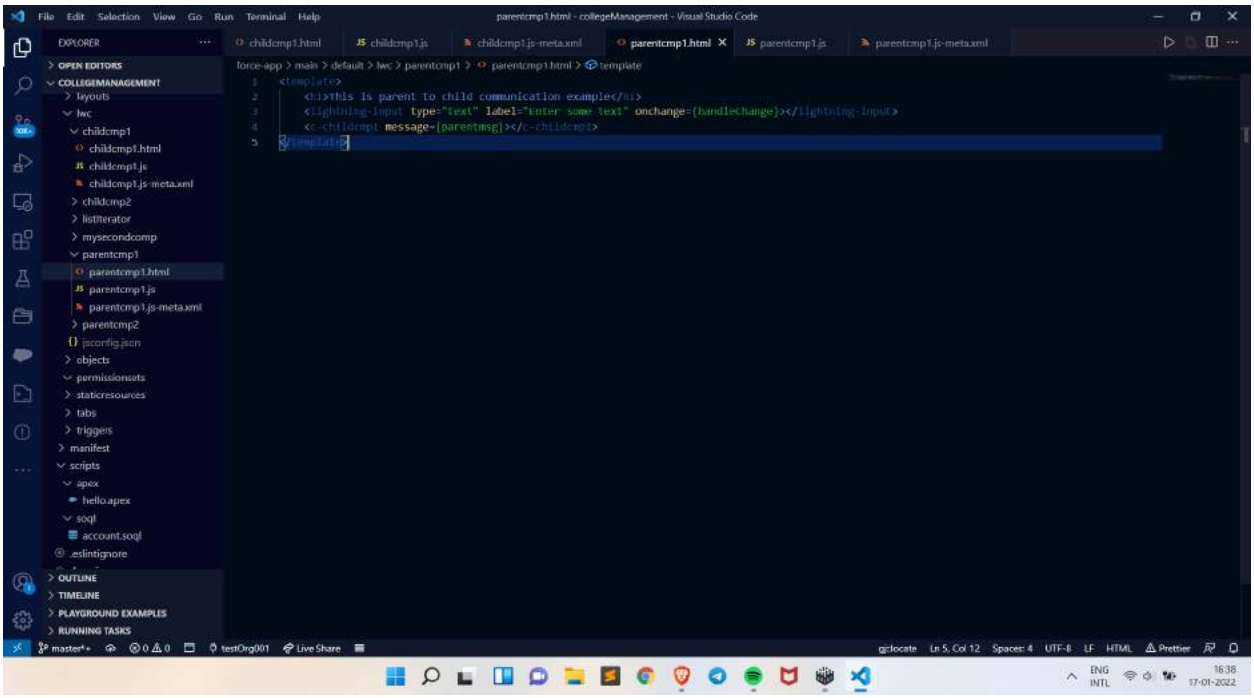

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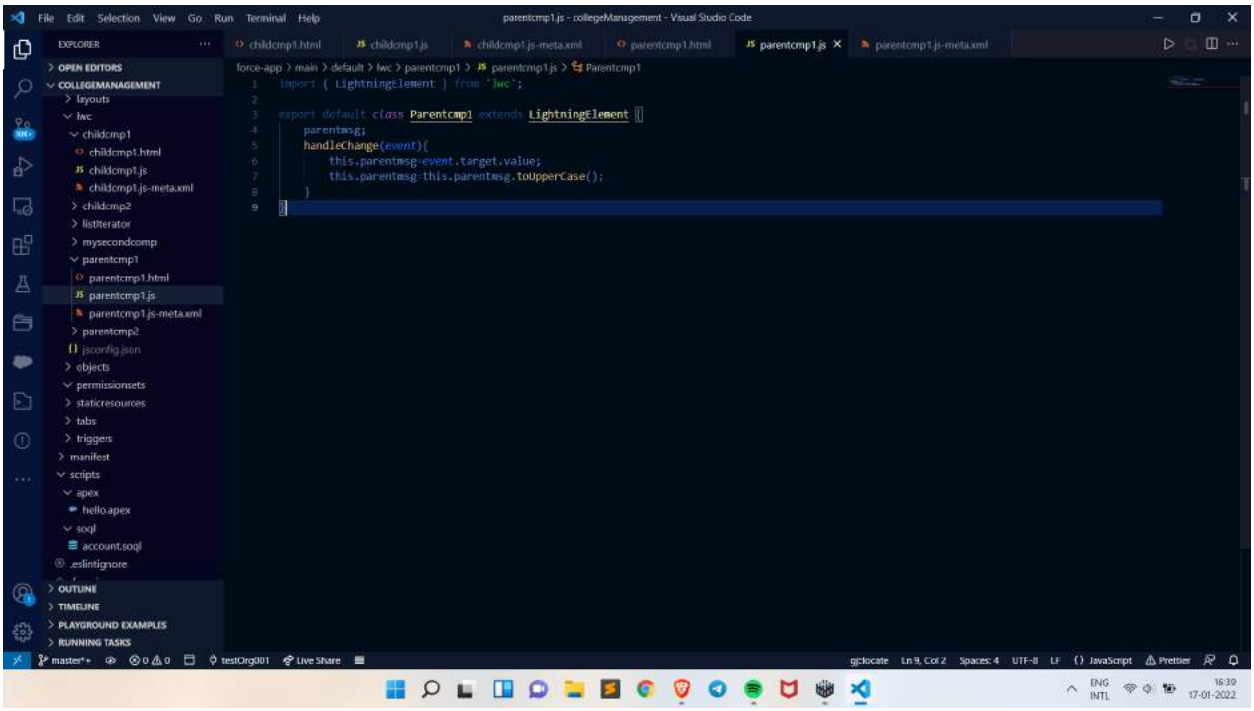

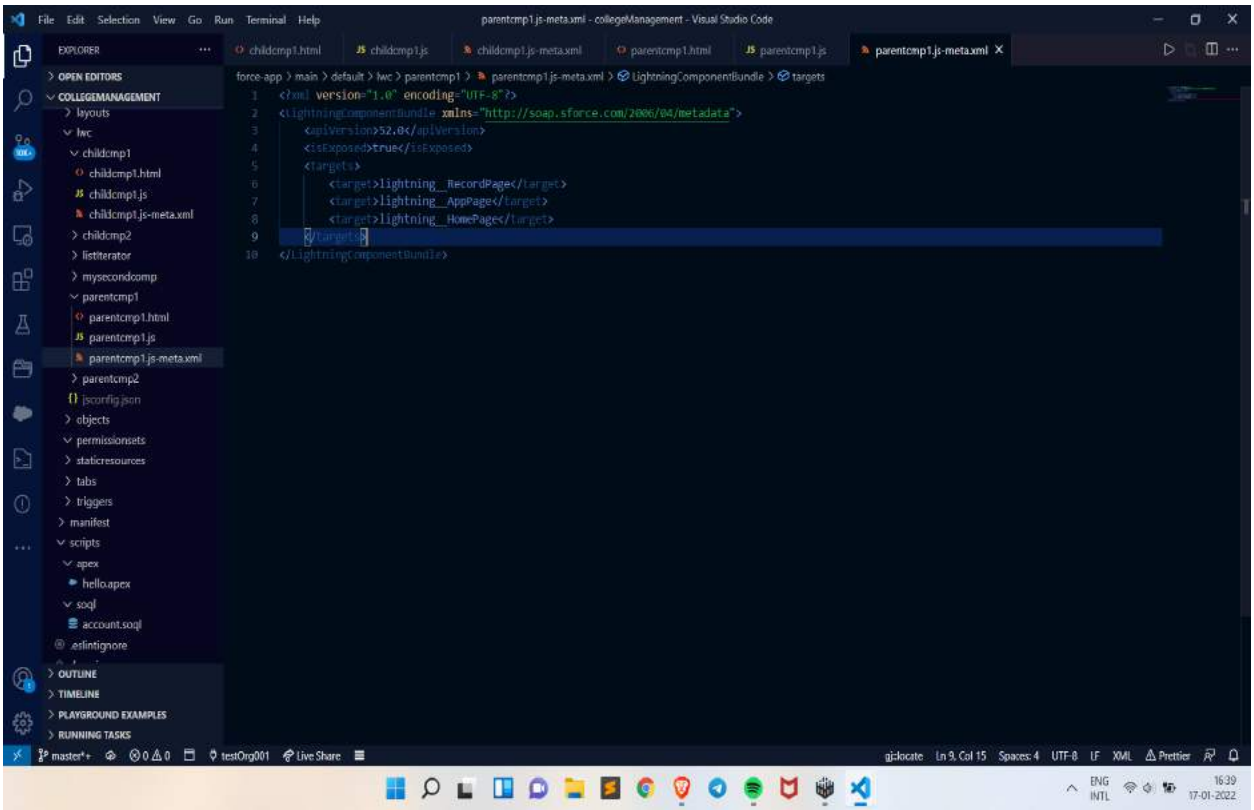

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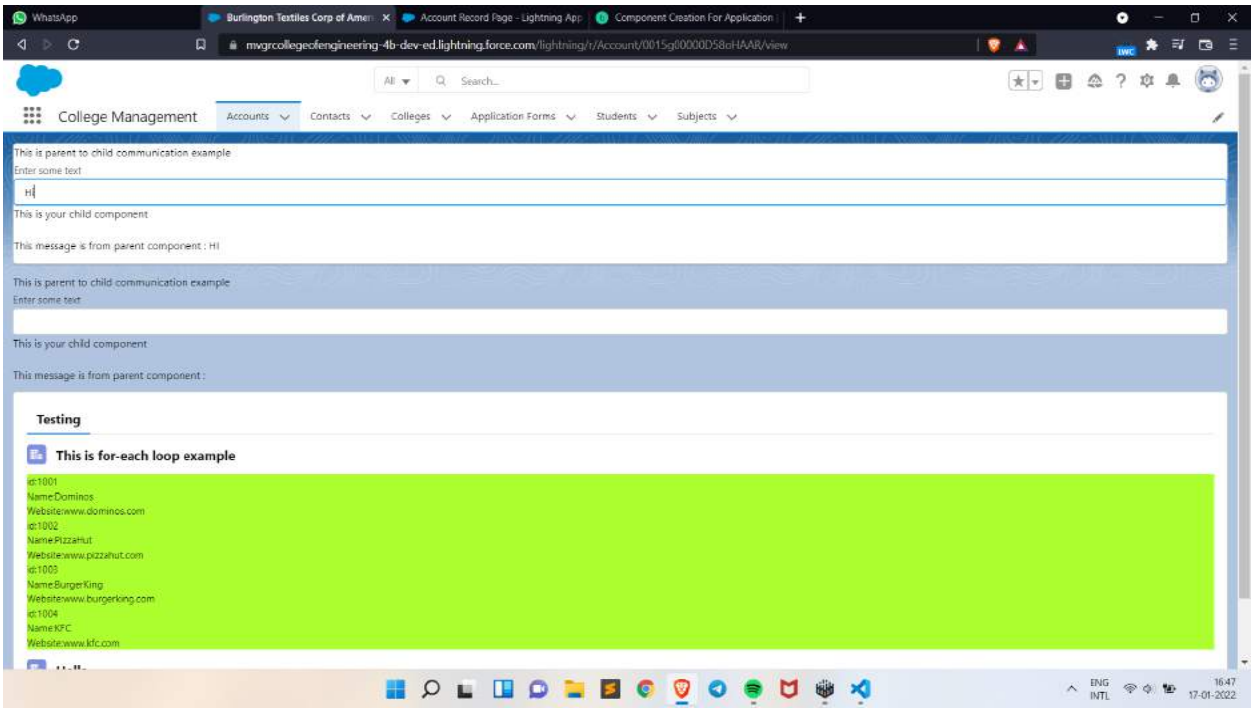

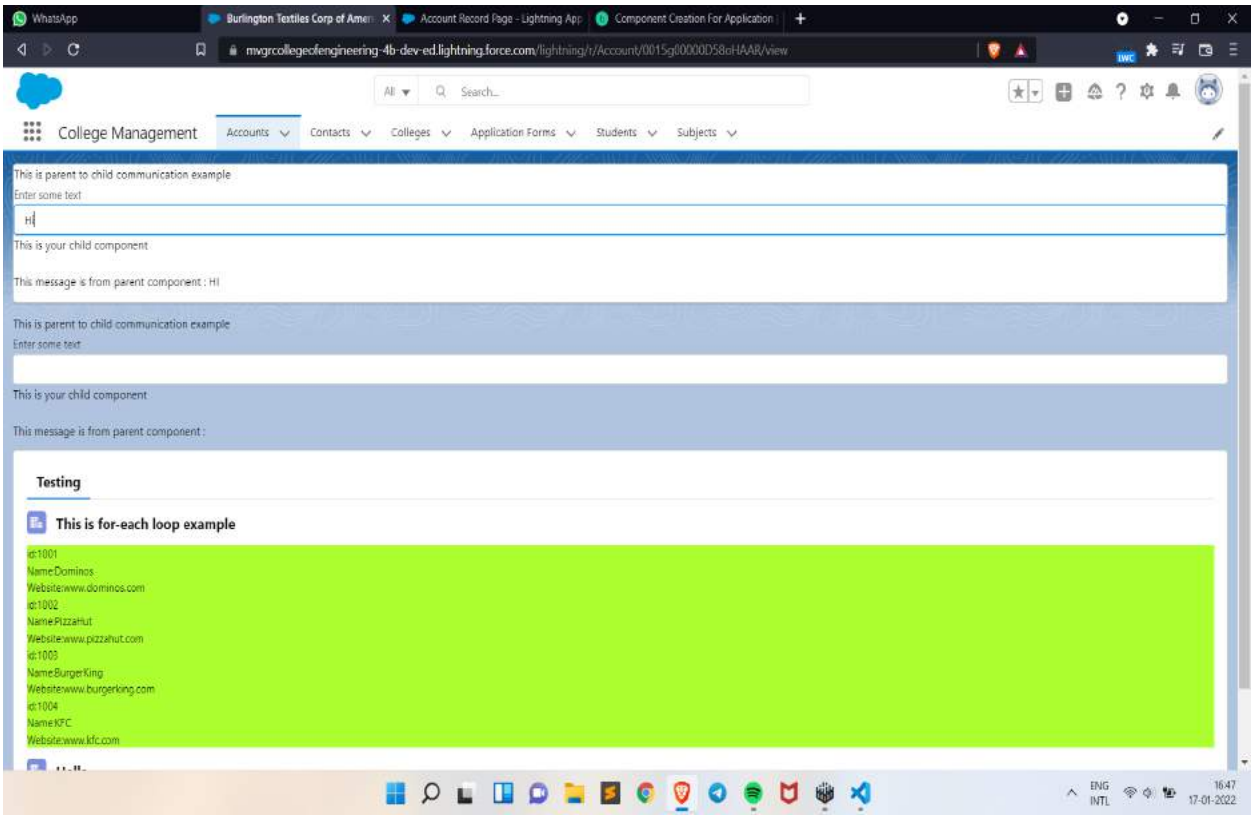

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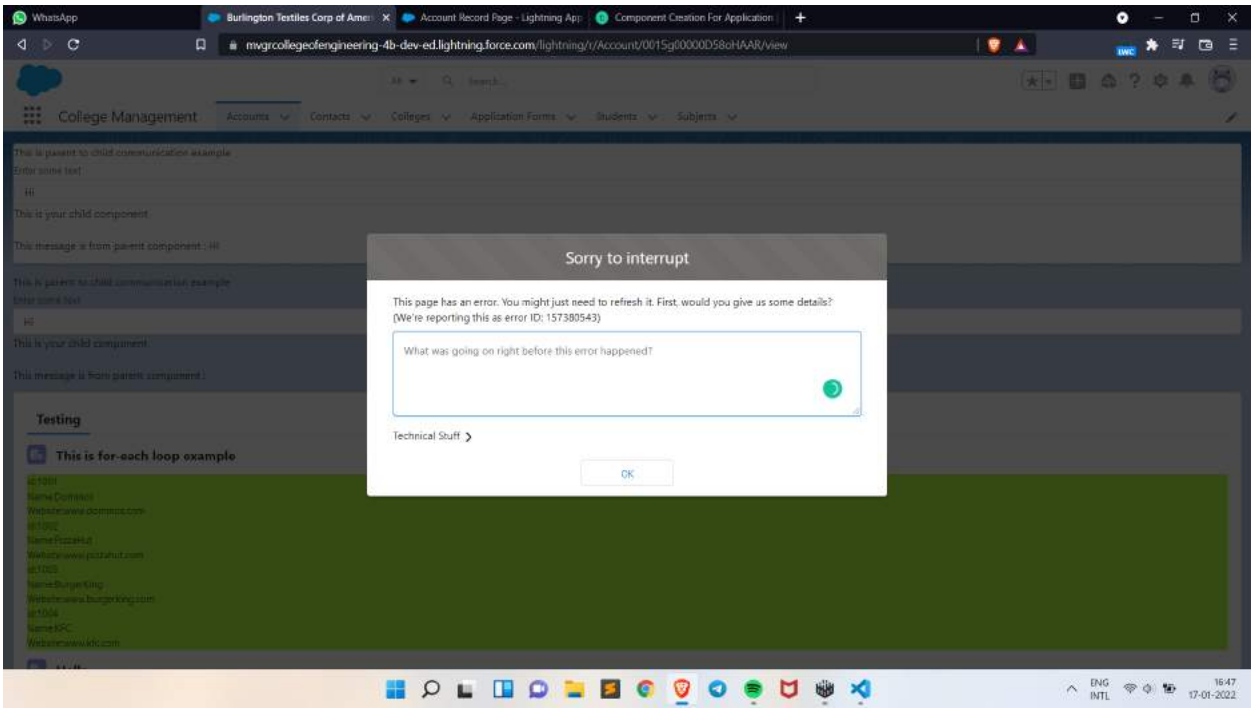

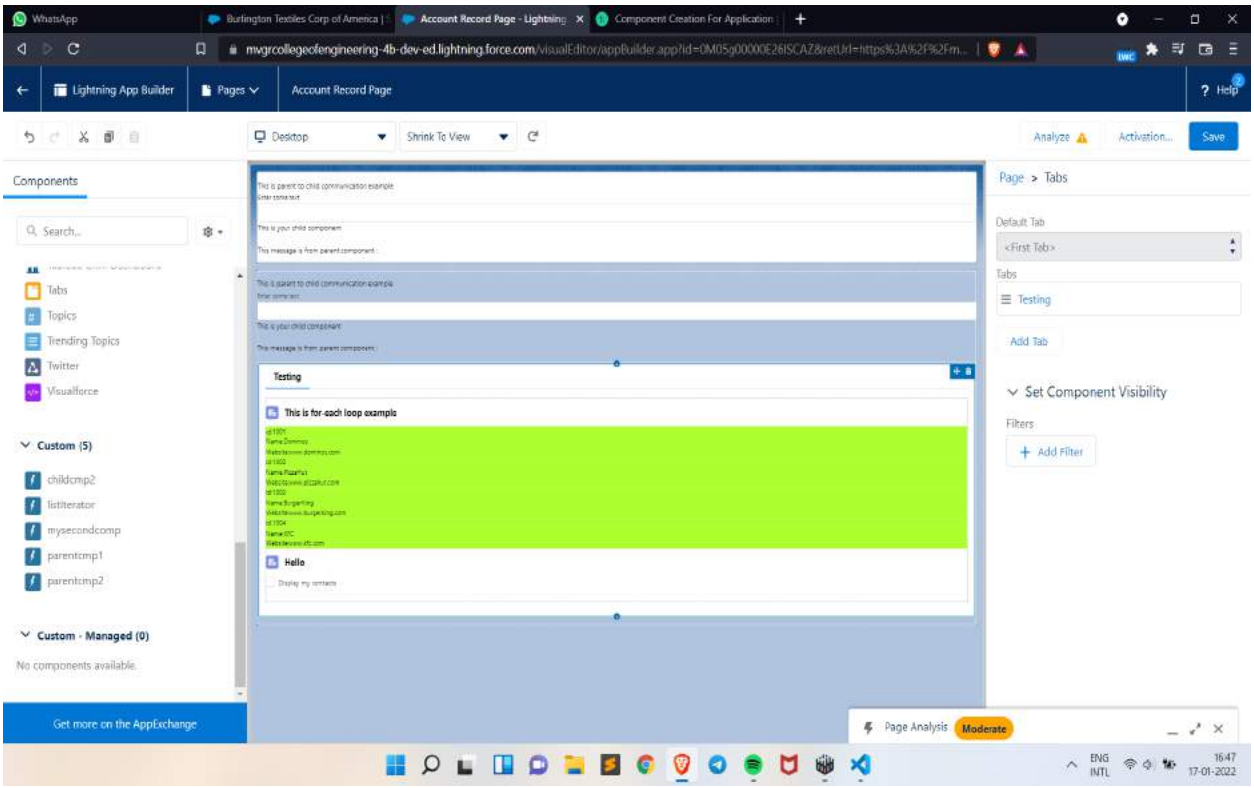

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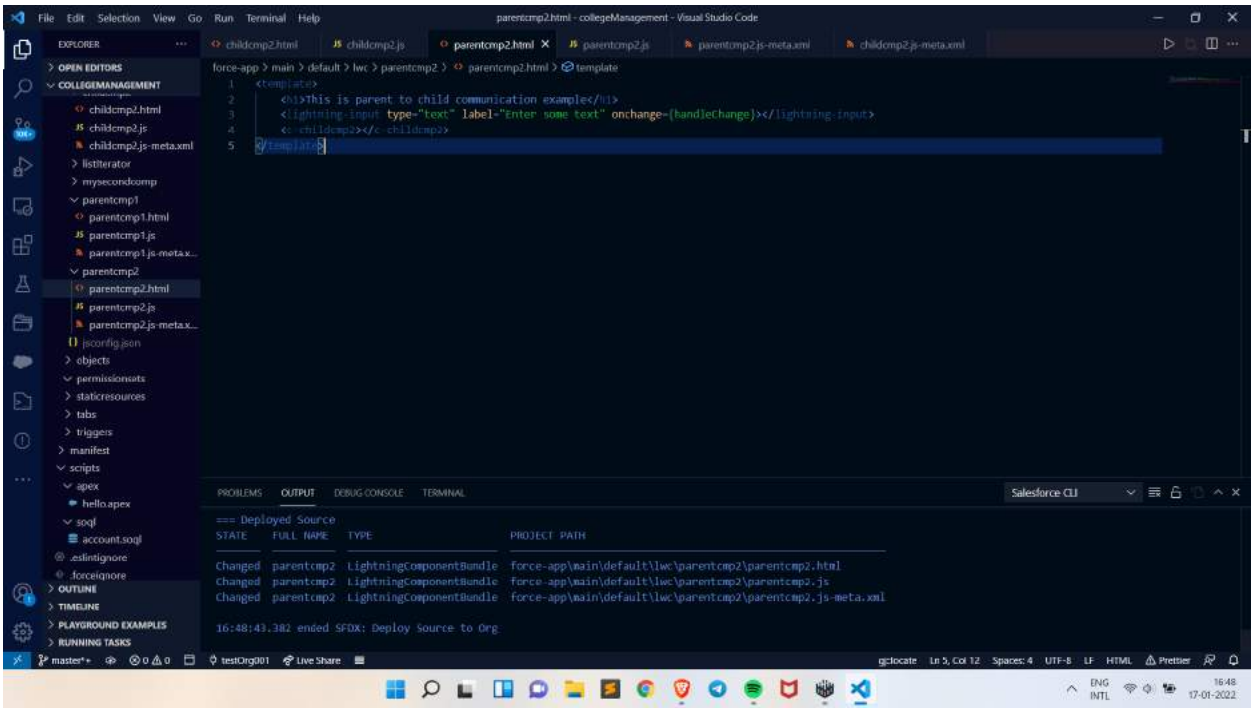

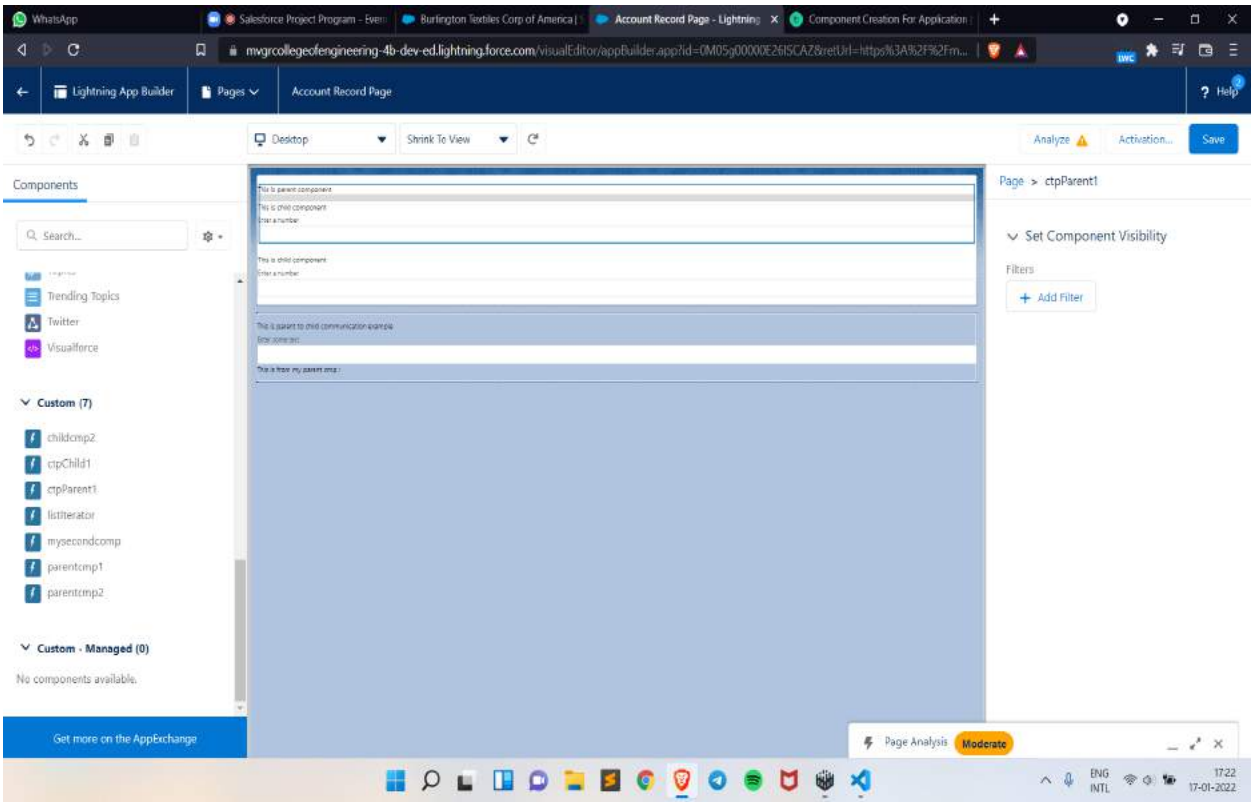

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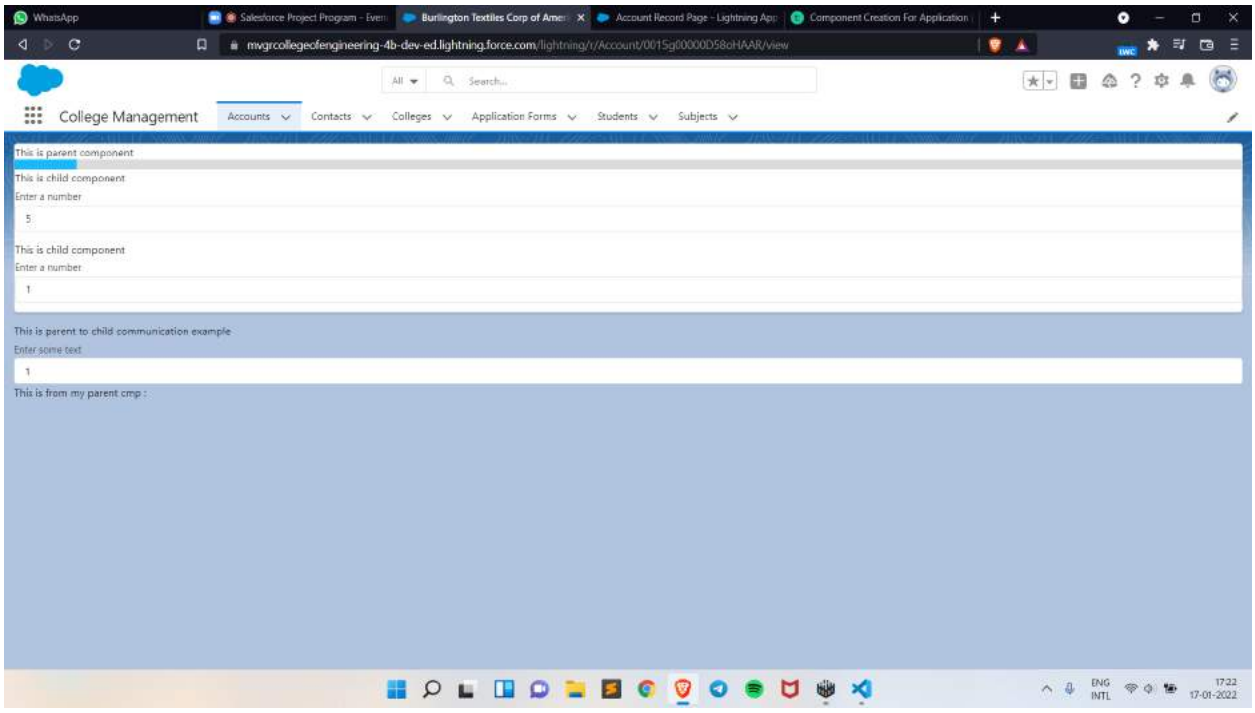

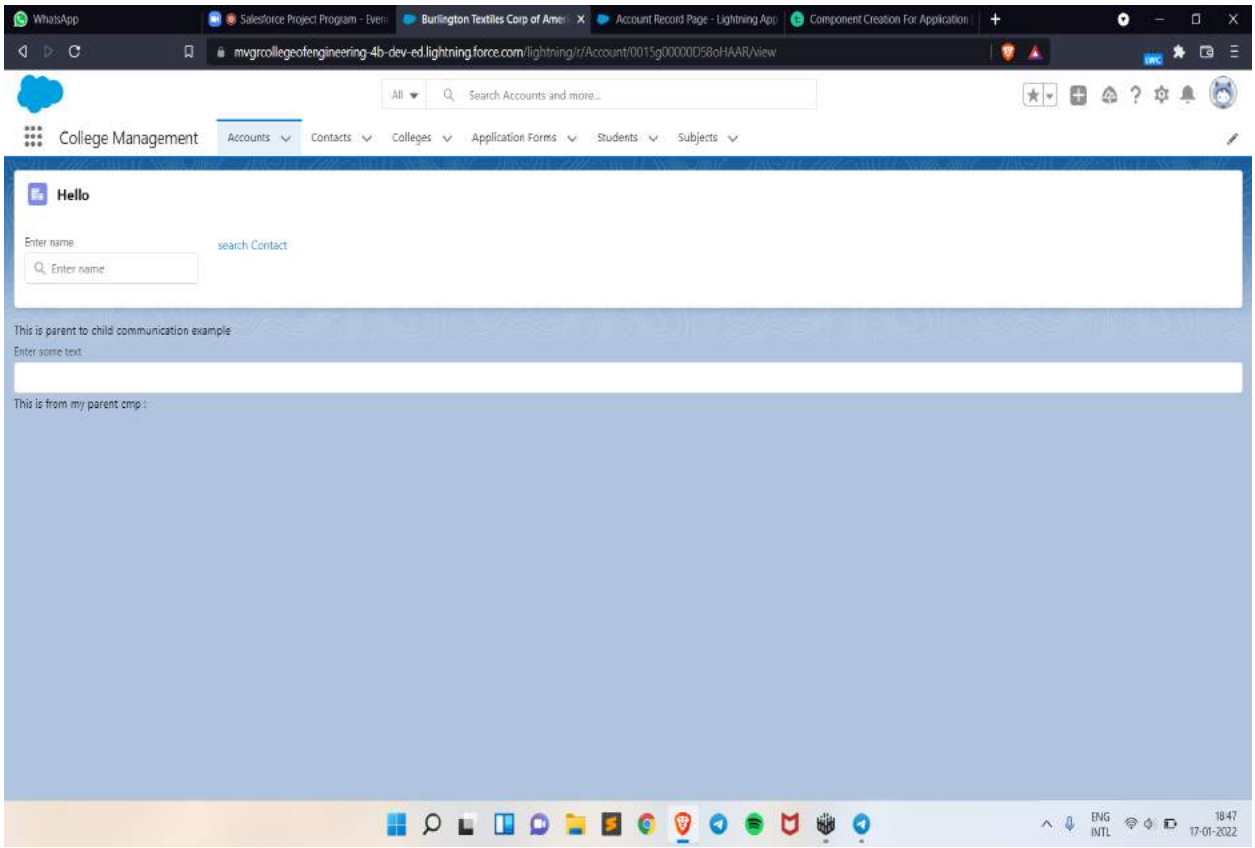

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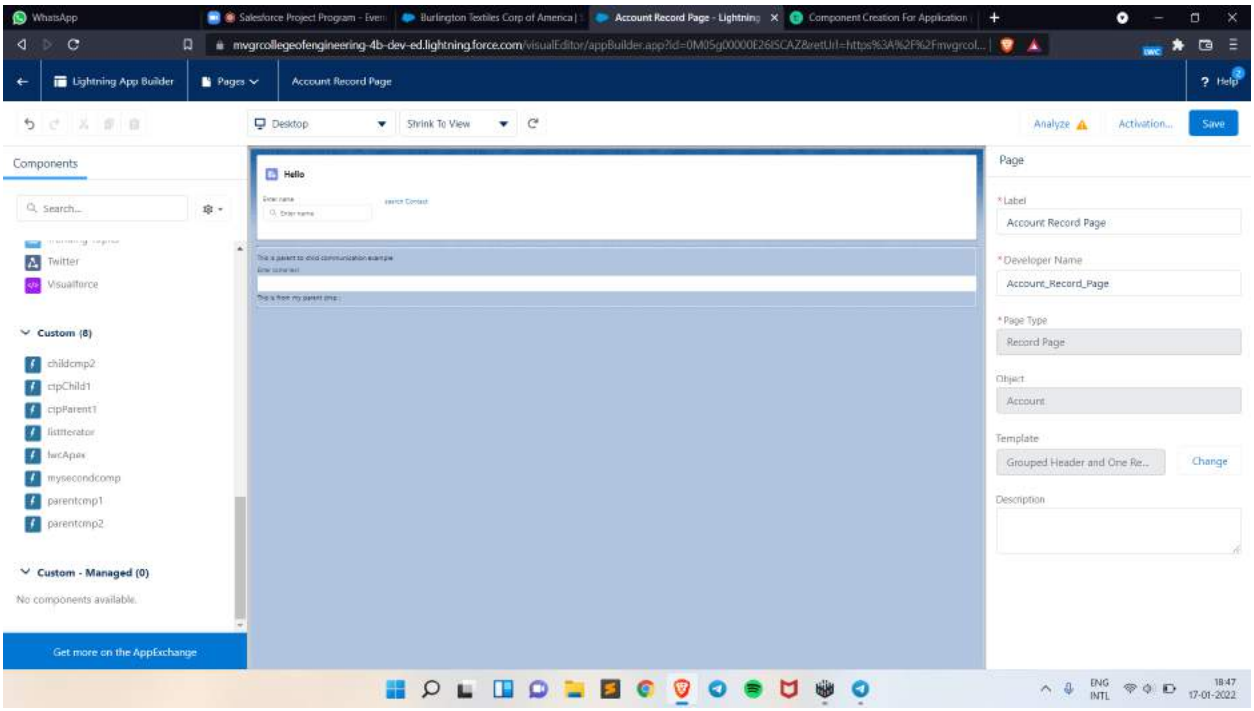

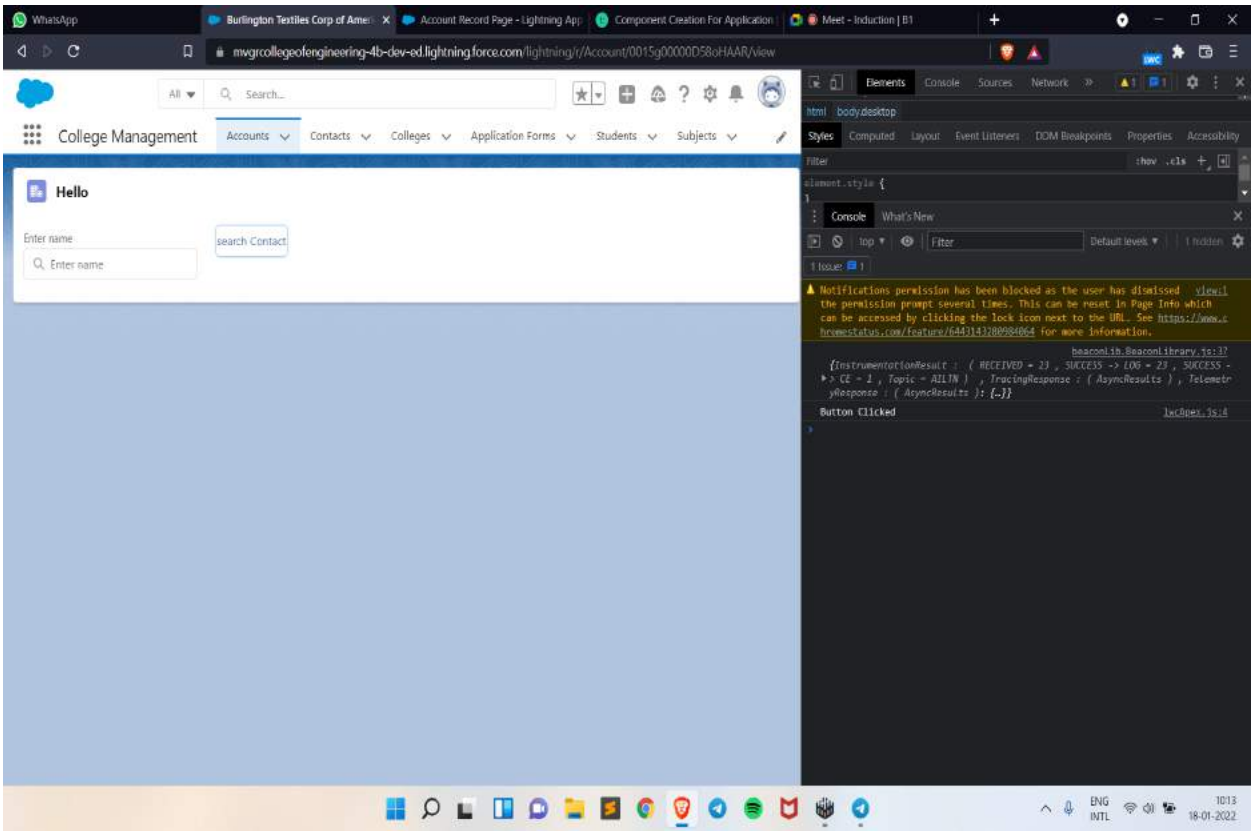

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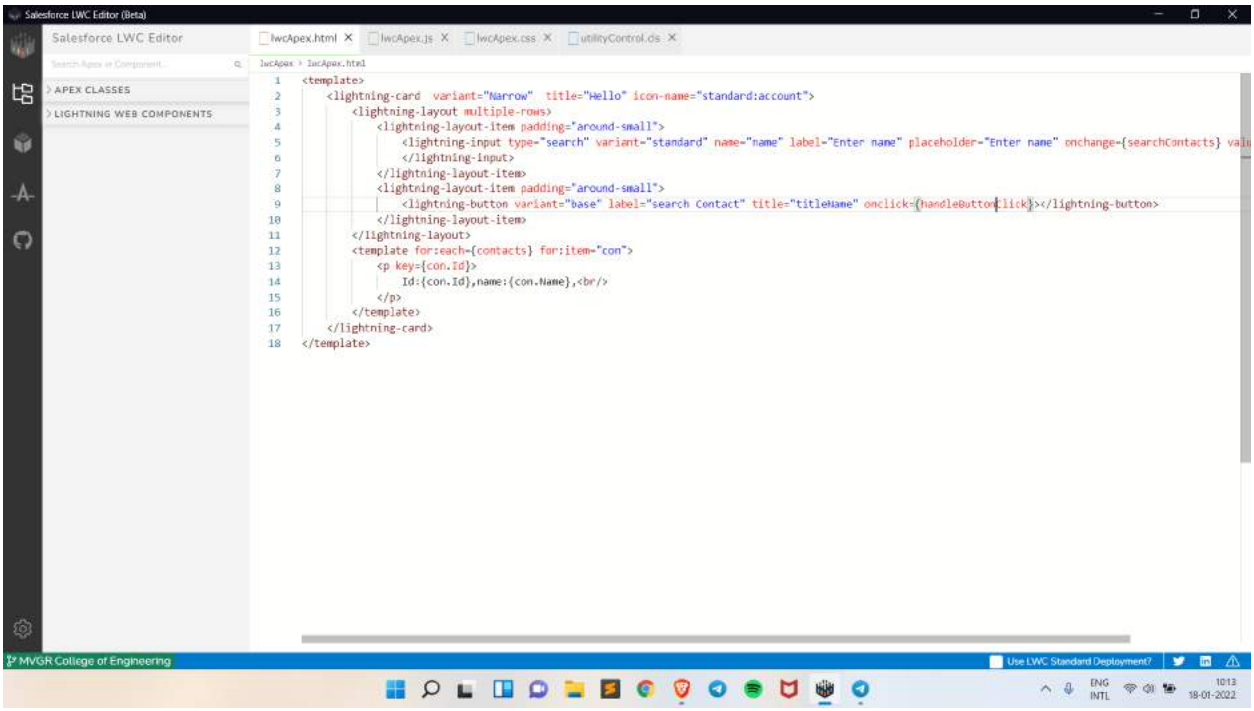

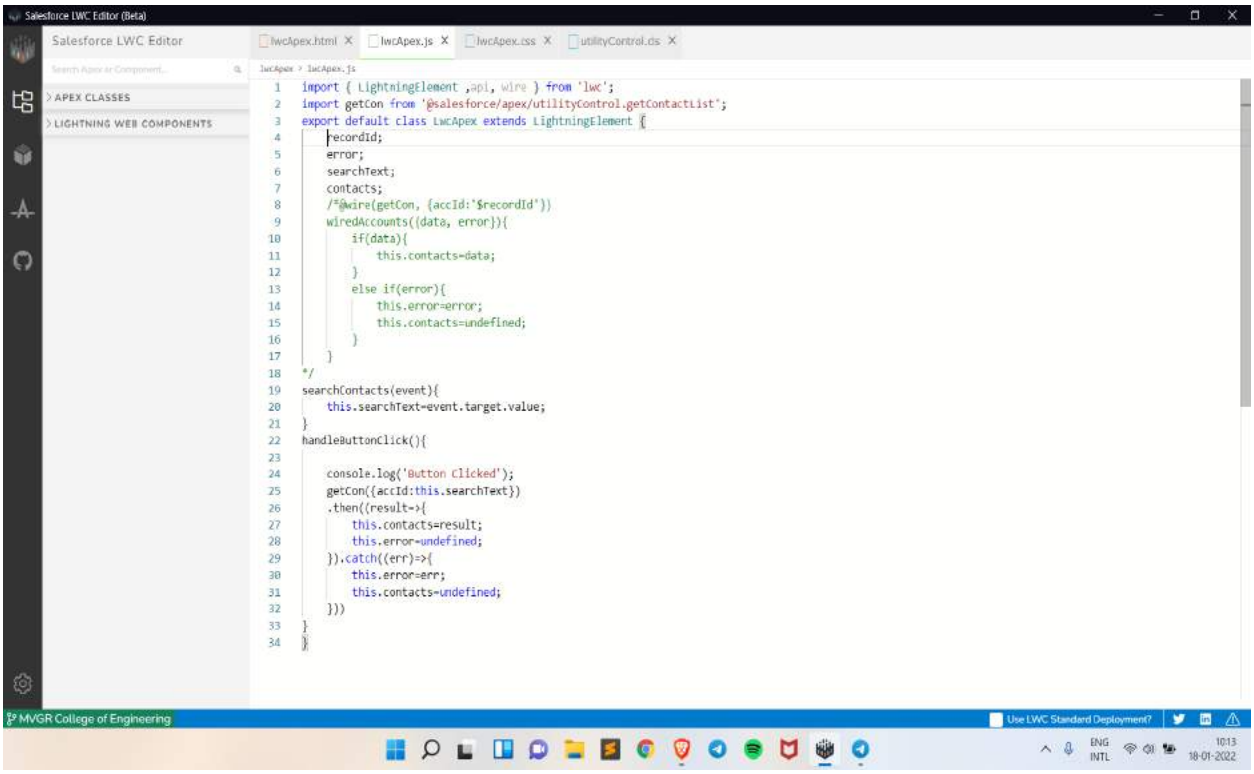

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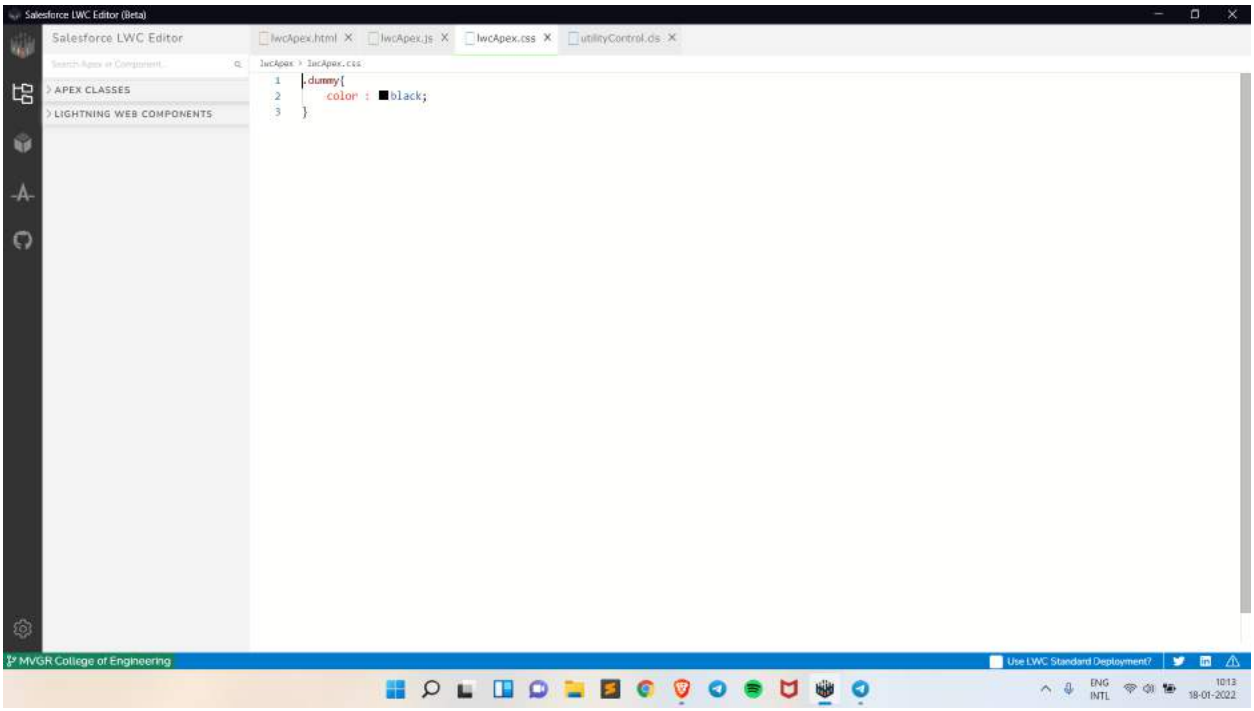

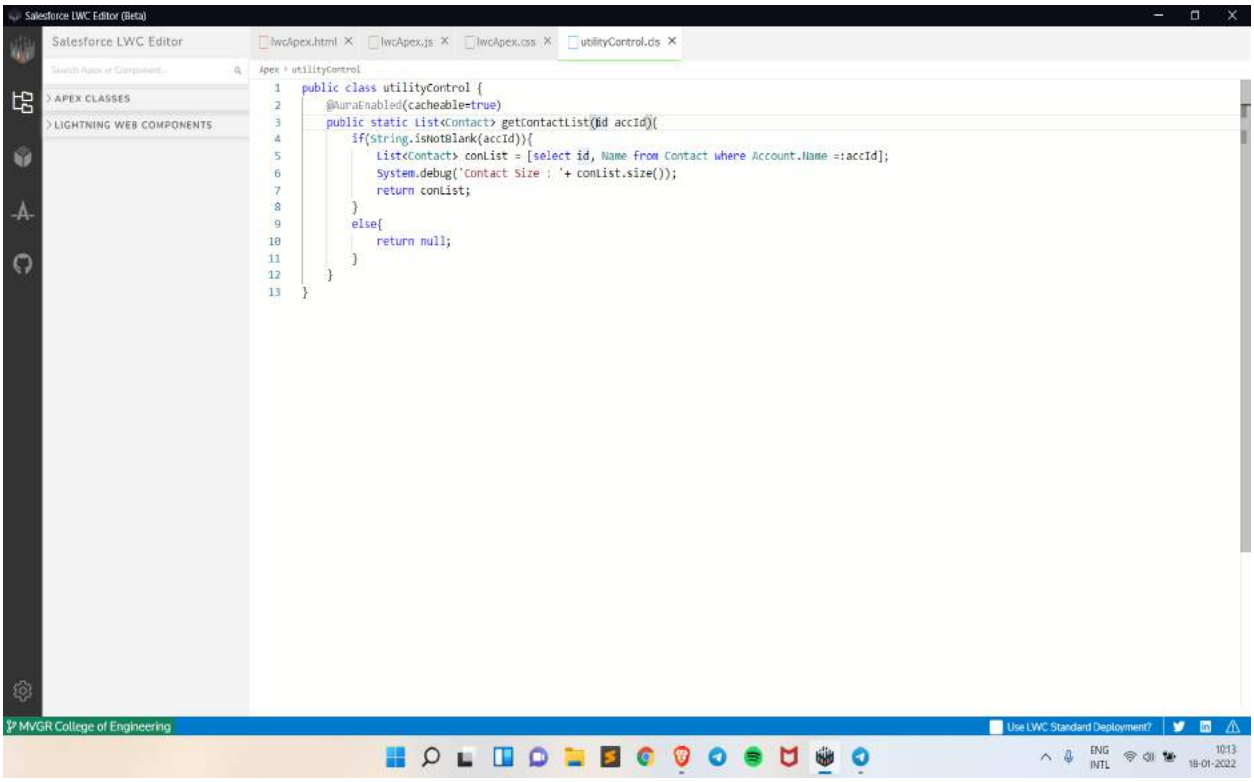

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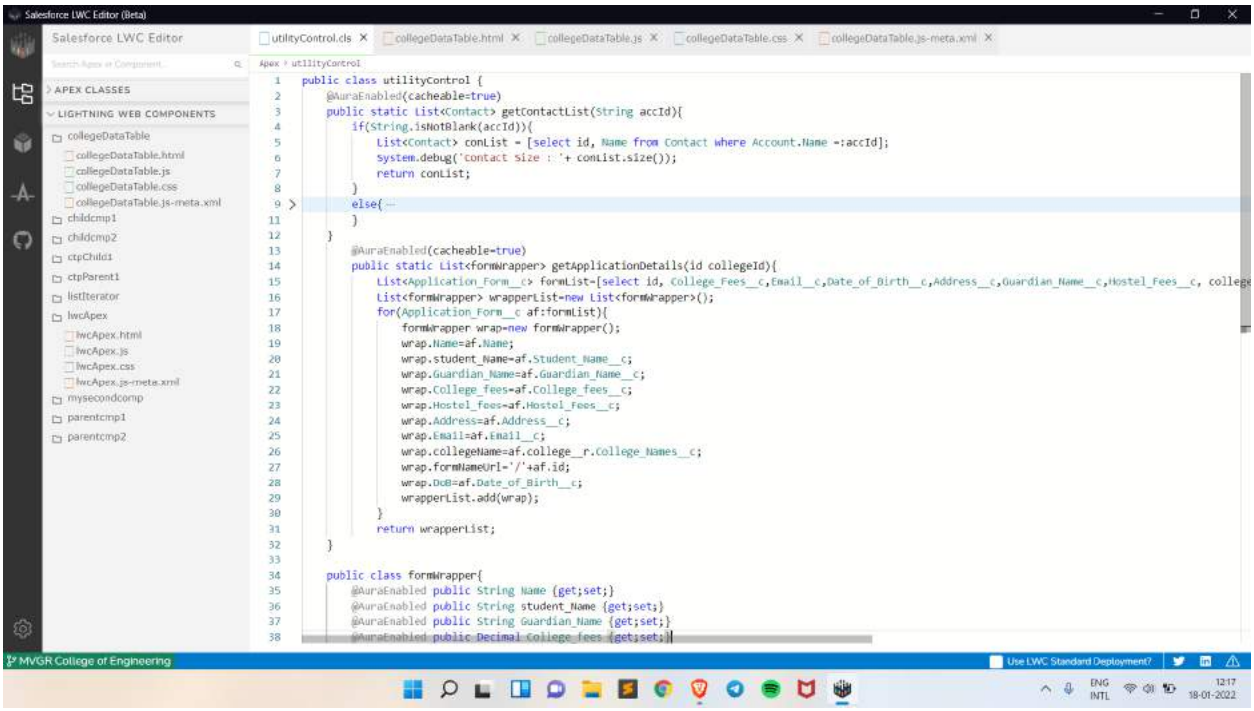

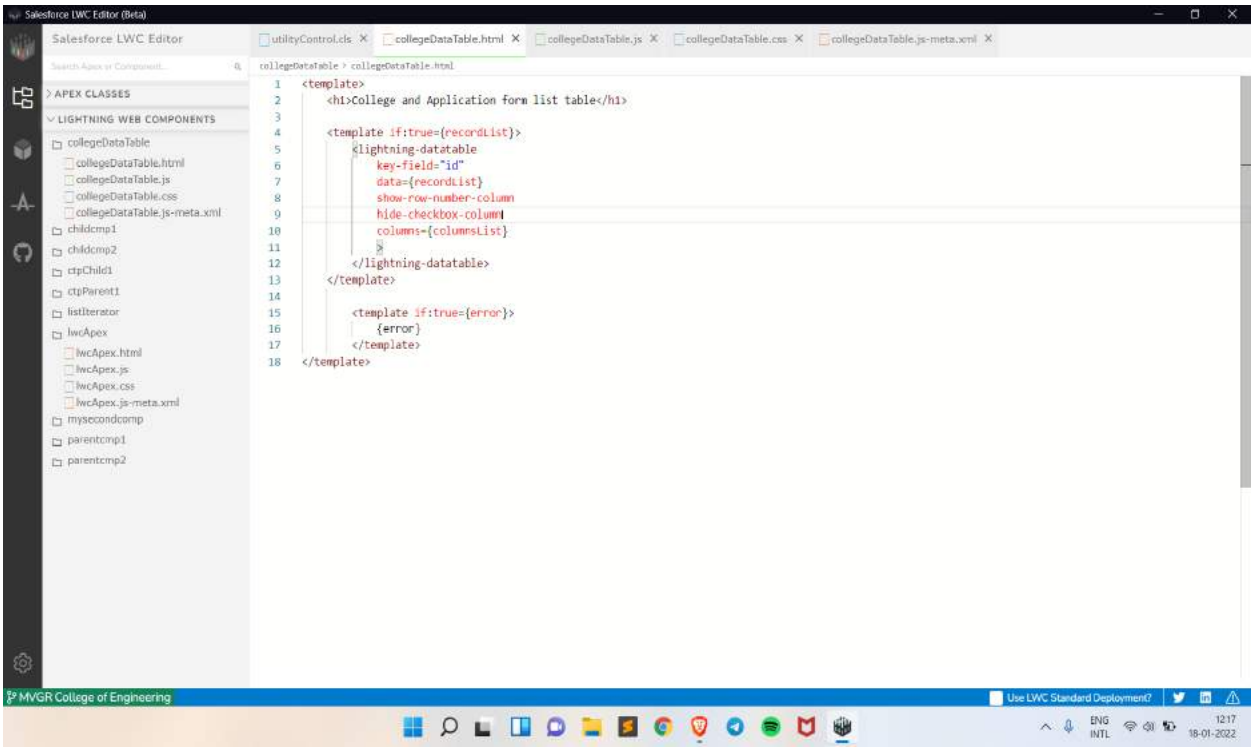

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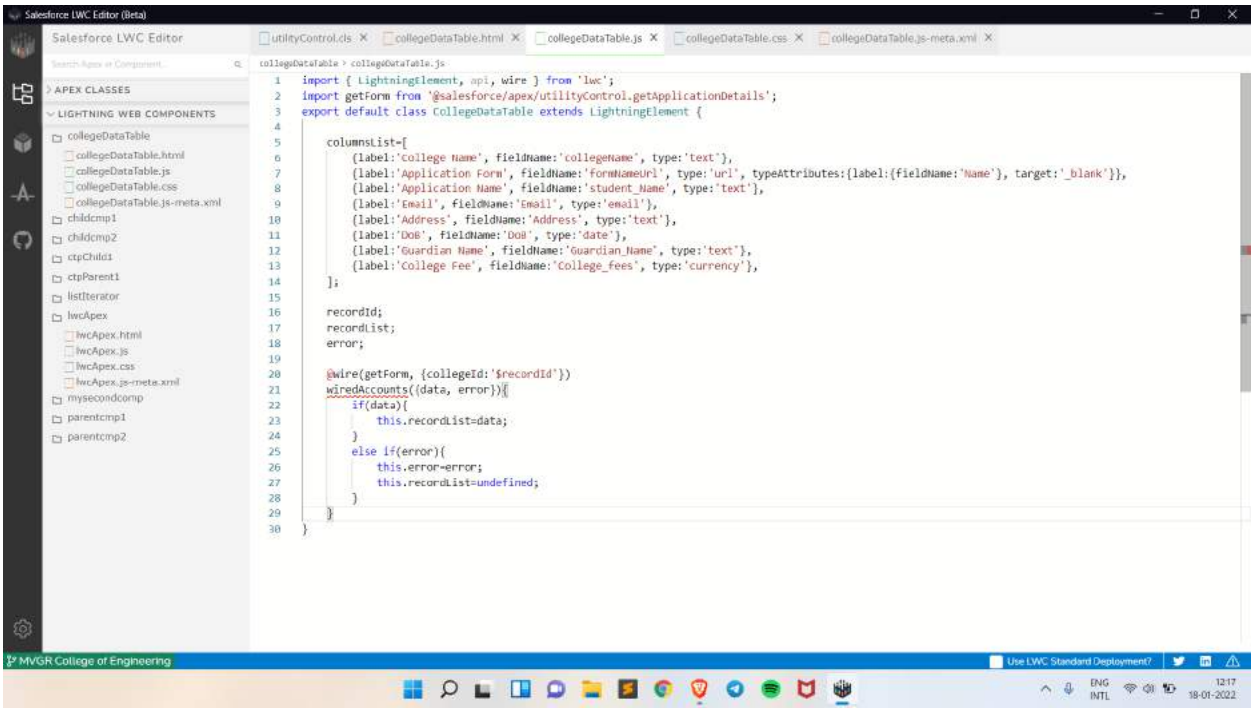

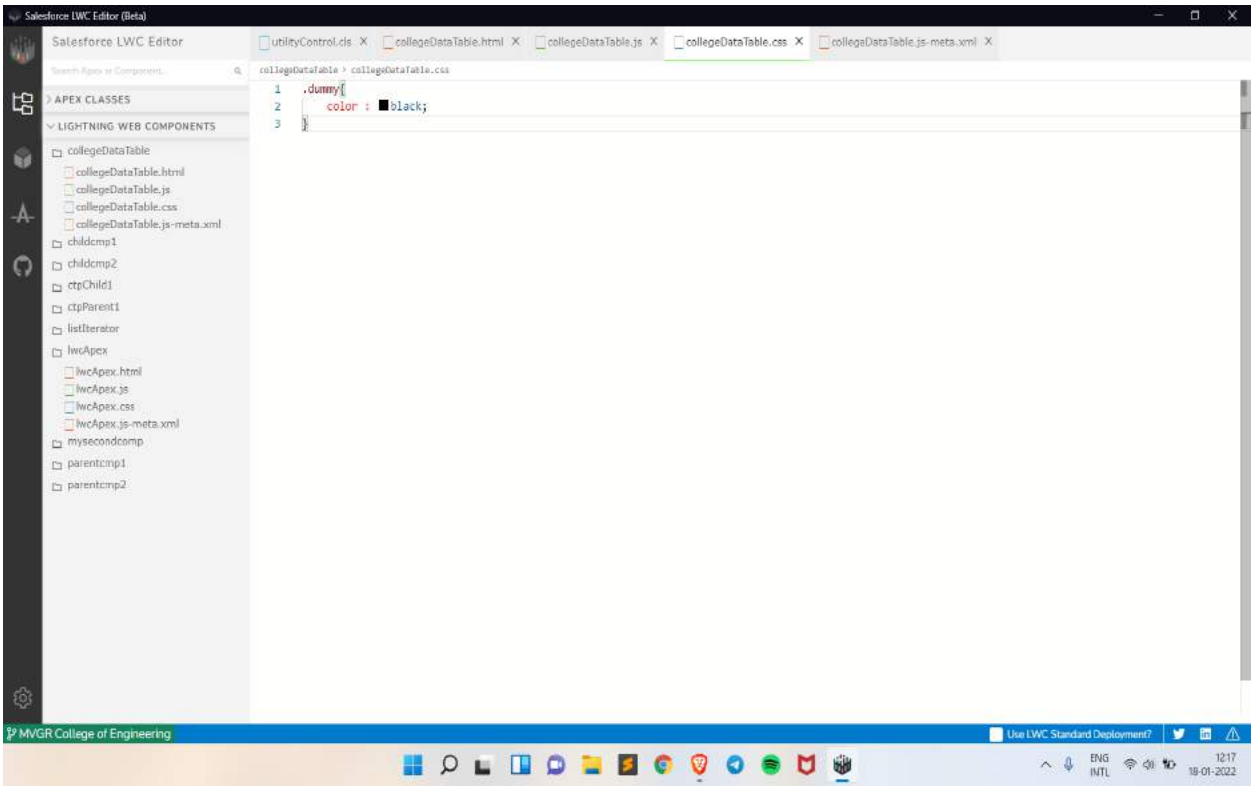

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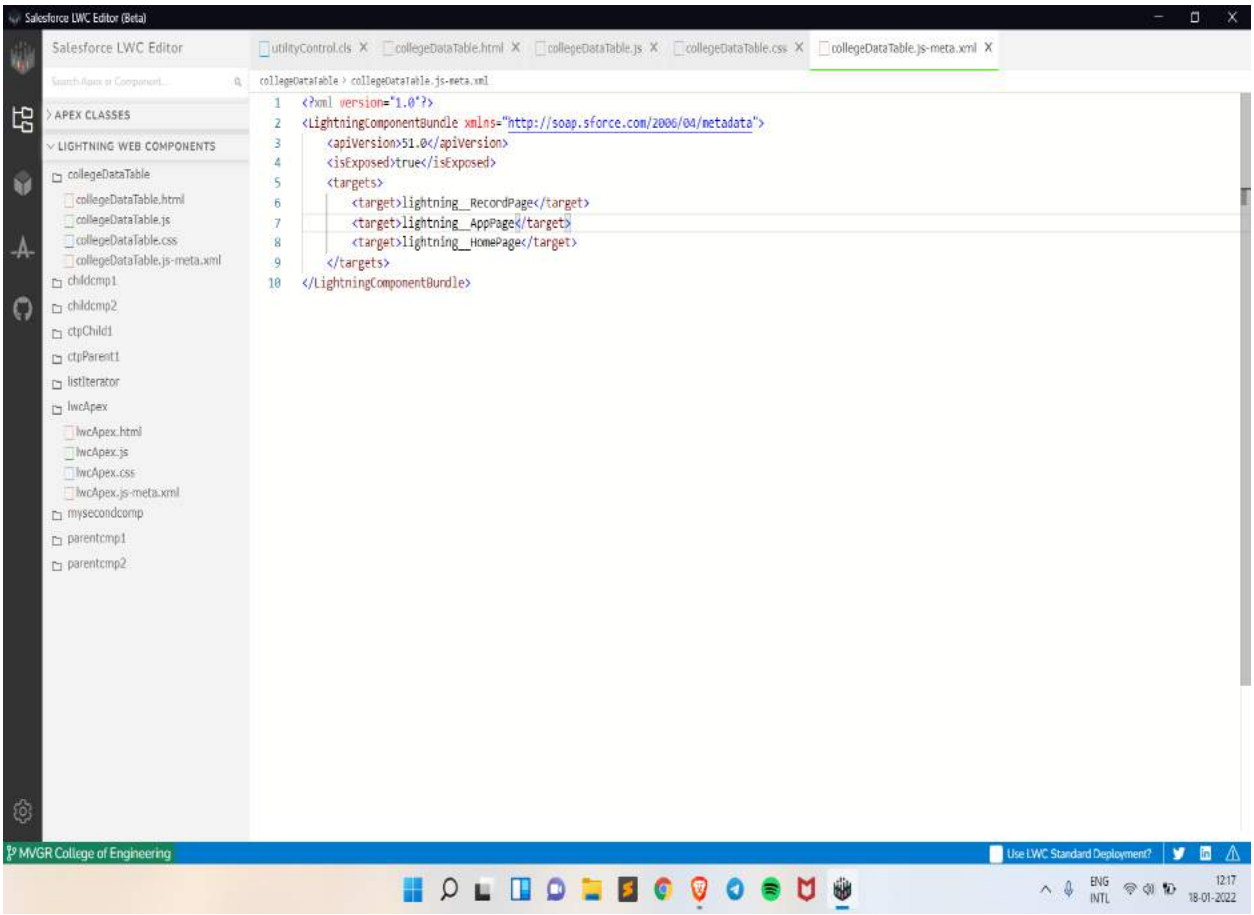


Day 11 :

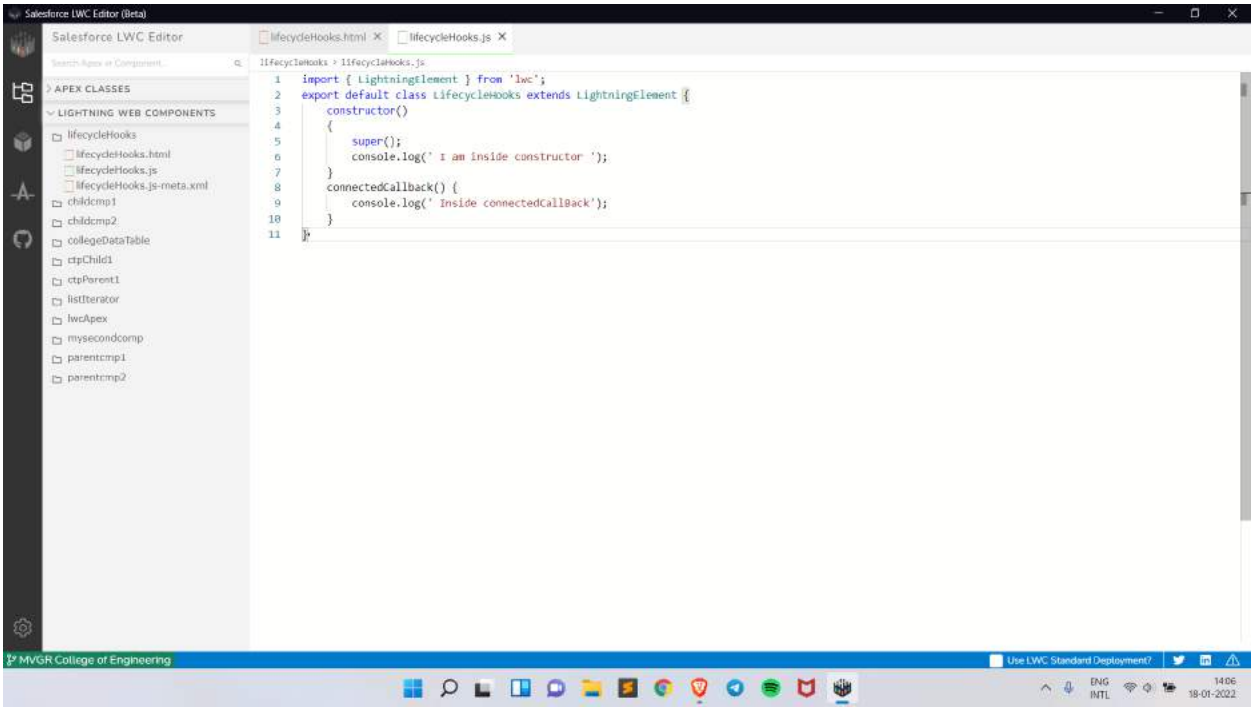
Topic: Alerts in LWC, Security Settings.

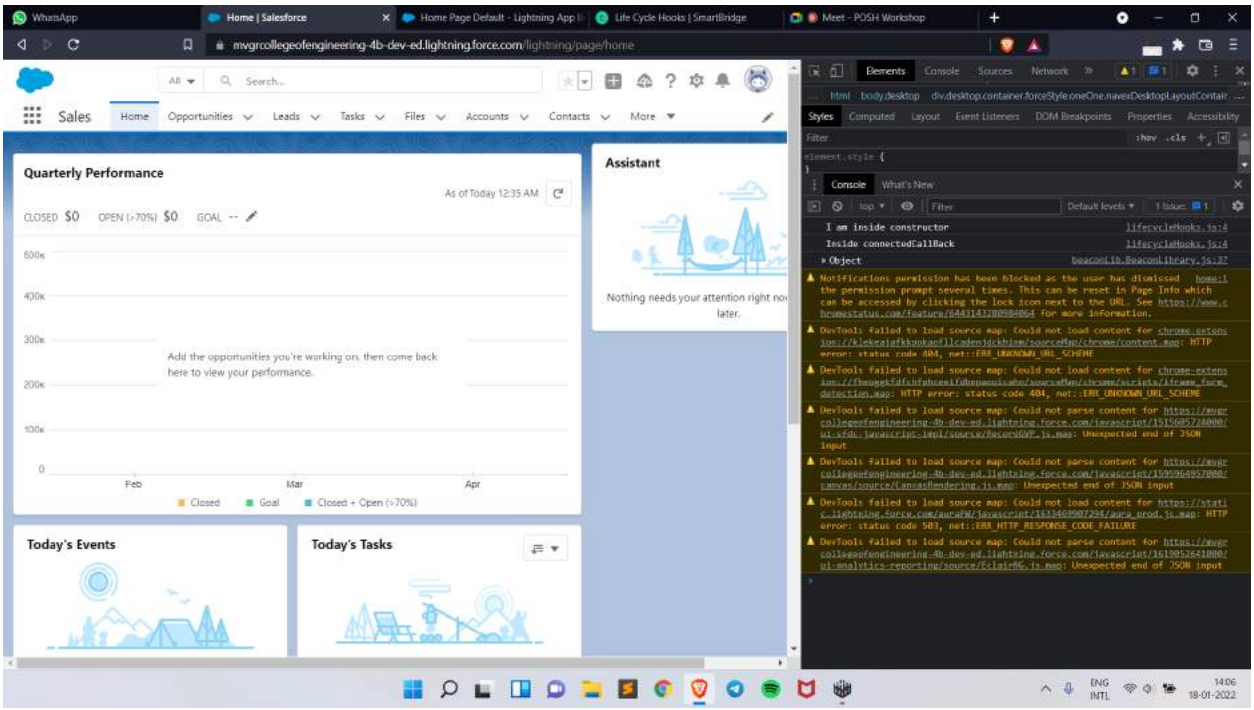
Milestone / Activities: To create alerts in LWC.

Detailed Description: Create a lwc. Example if we want to create an alert message for a phone number, we can create functions with certain conditions. Success, Error, Warning and Info functions can be implemented.

PROJECT REPORT

Upload the Screenshot the Milestone / Activities :





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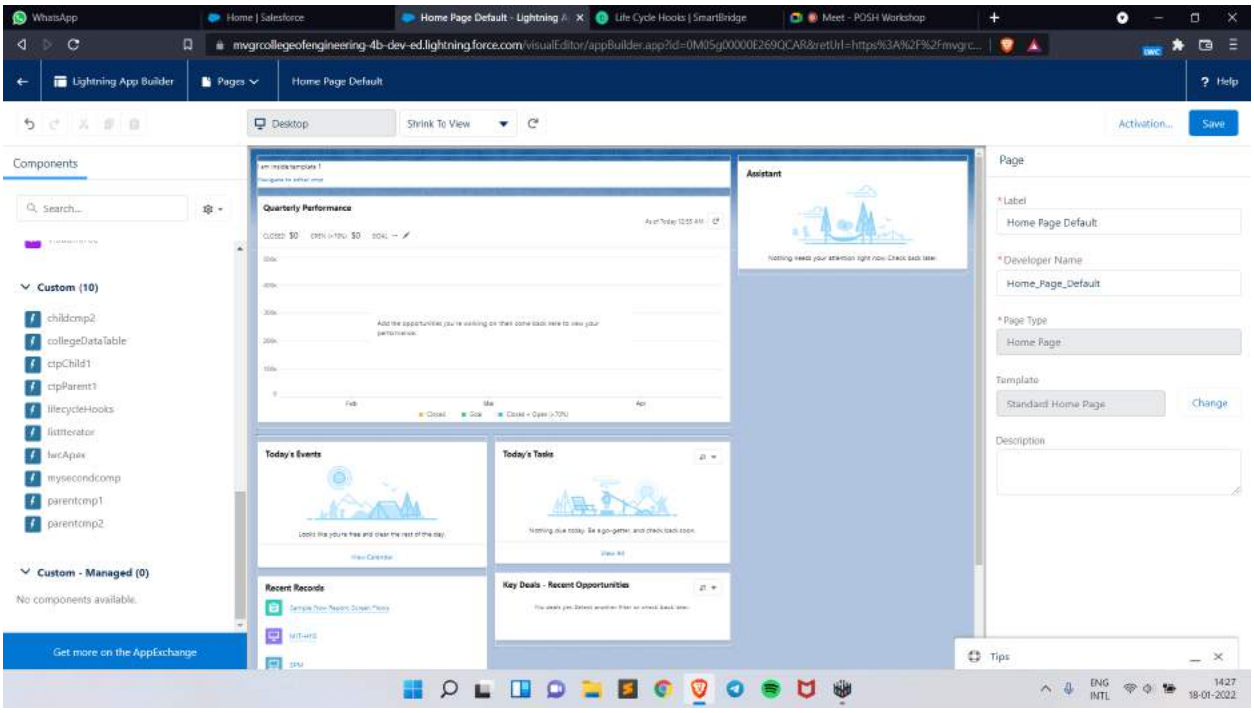

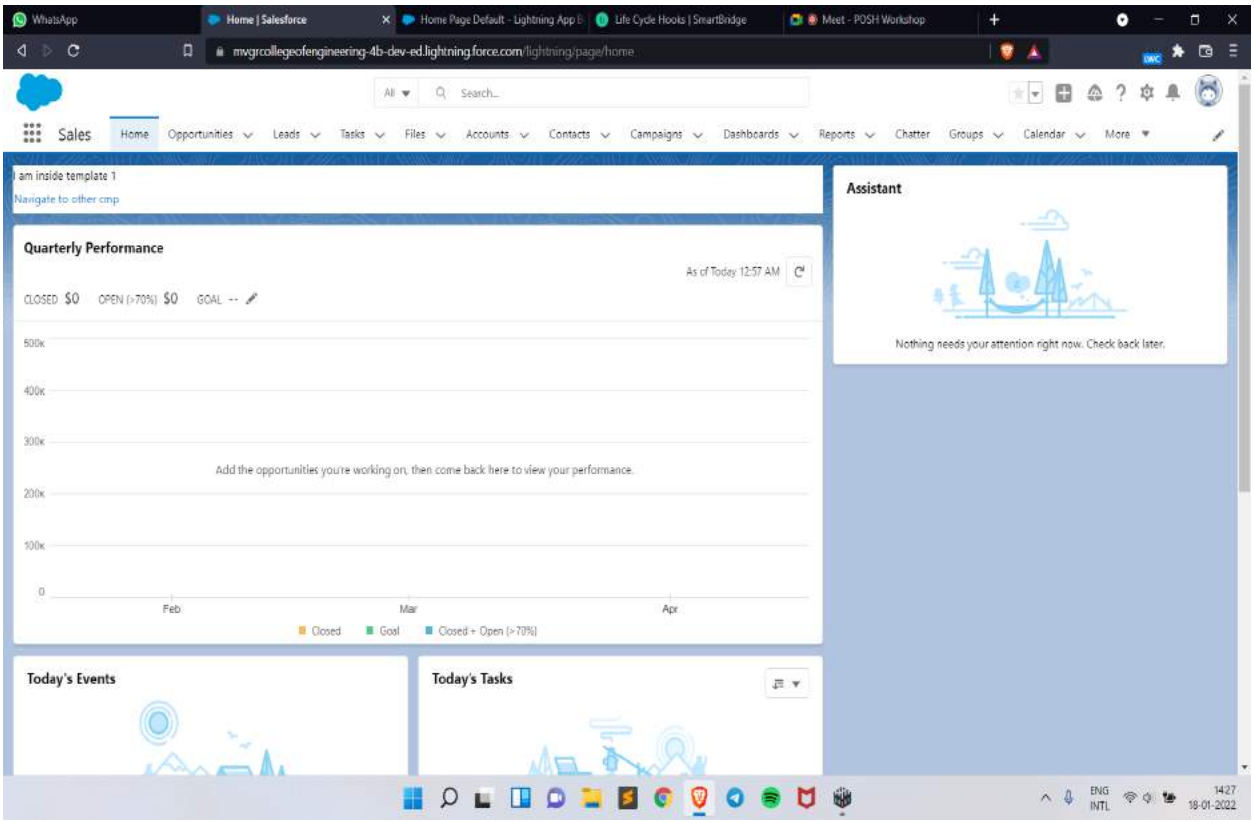

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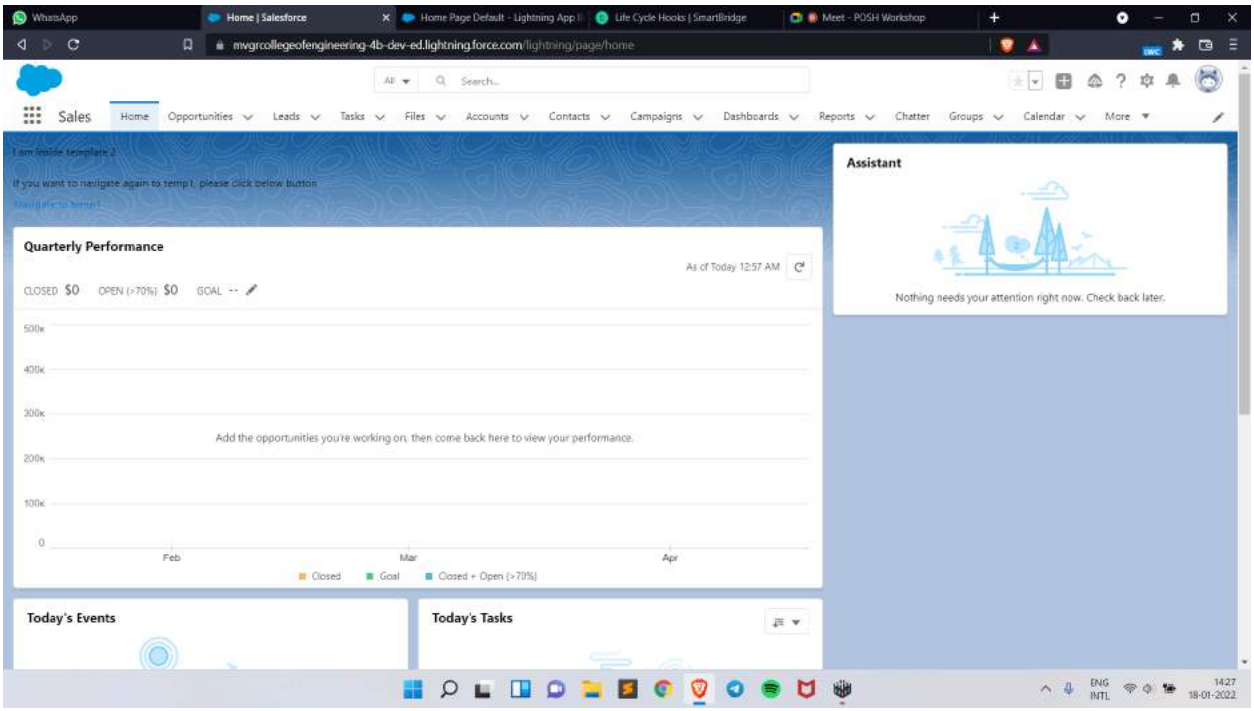

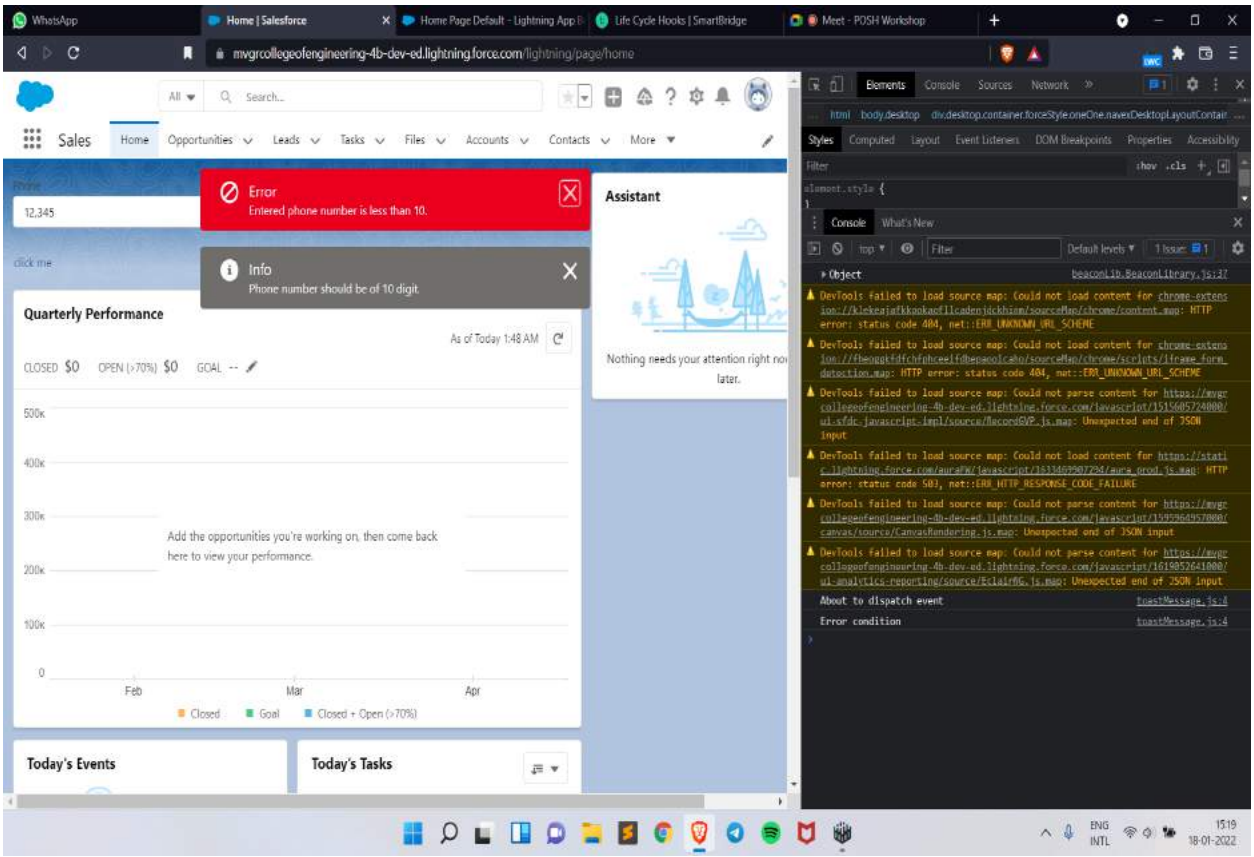

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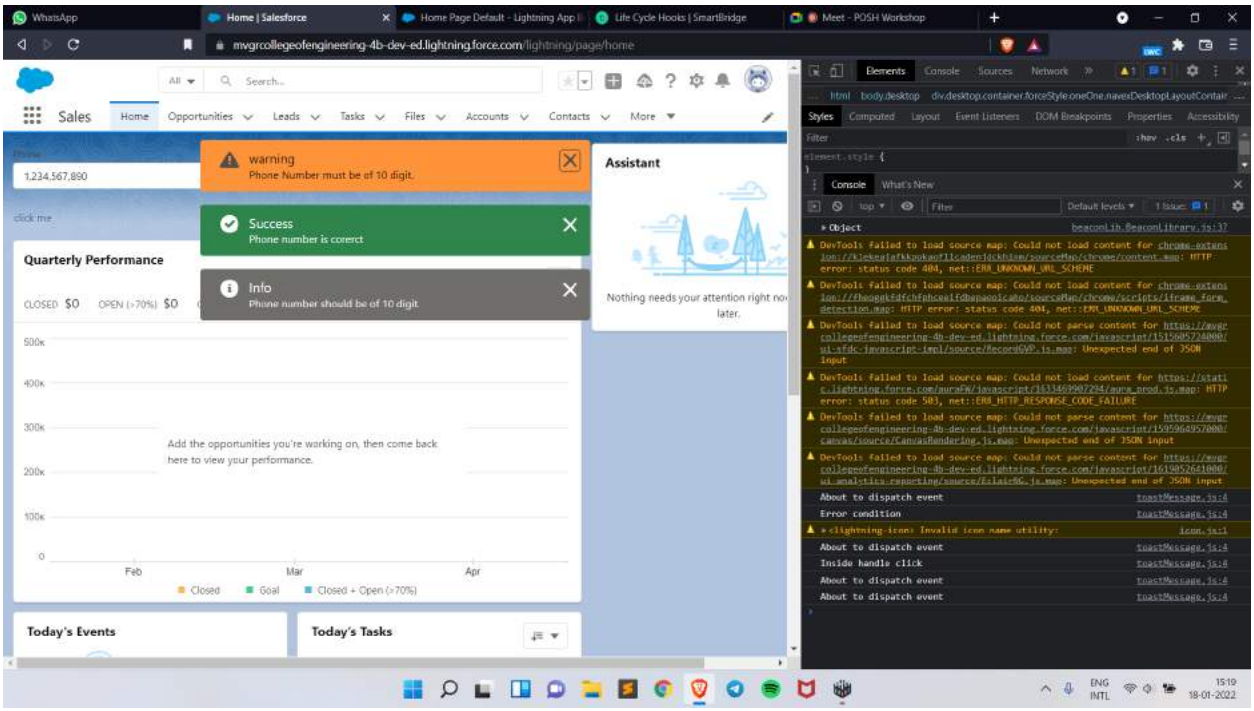

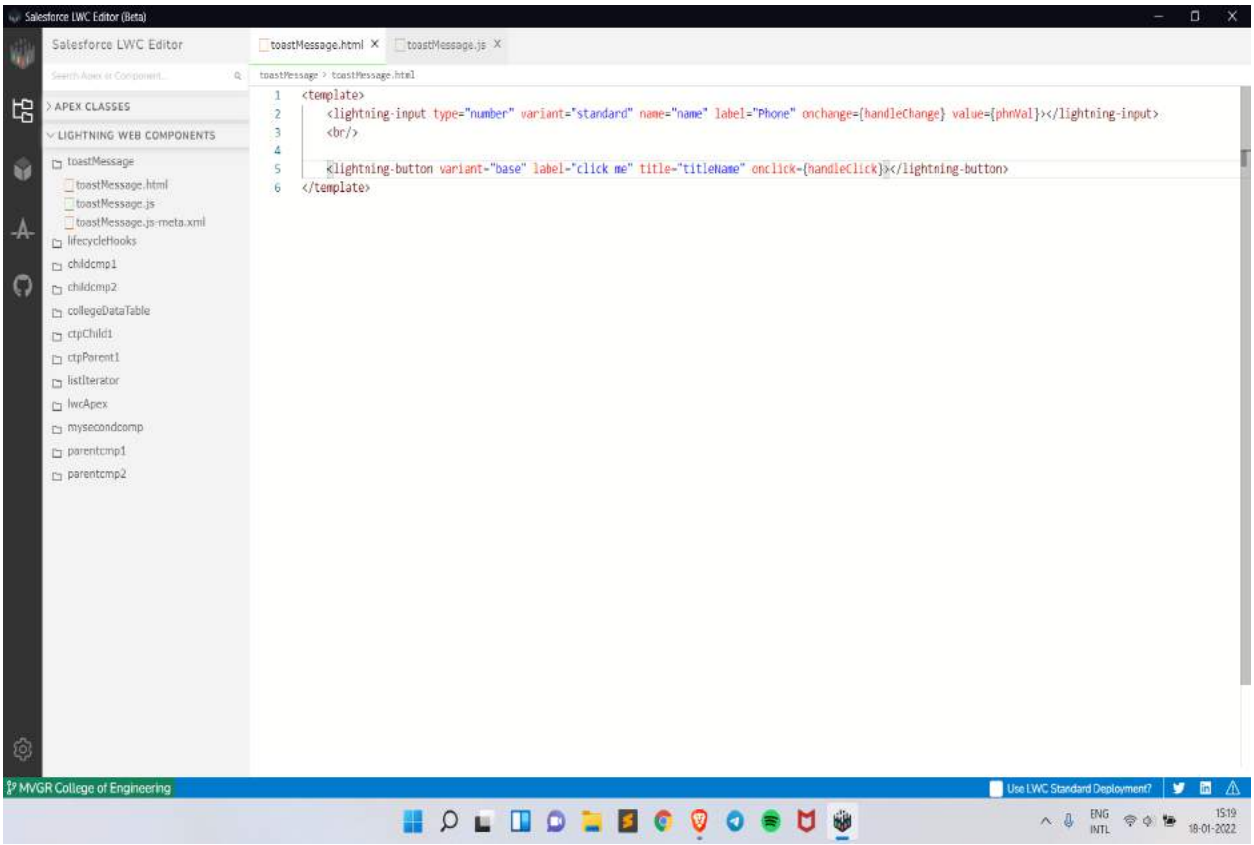

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