Salesforce Project Phase-6

Phase 6: User Interface Development

1. Lightning App Builder

- Used the **drag-and-drop App Builder** to design custom pages.
- Explored **Record Pages**, **App Pages**, and **Home Pages**.
- Added standard components (like Highlights Panel) and custom LWCs (e.g., progressTracker, courseRecommendation).
- Set page visibility for **Student Portal**.

2. Record Pages

- Customized layouts for **Student__c** and **Course__c** records.
- Included:
  - **Highlights Panel** → shows important fields at the top (e.g., Student Name, Course Name).
  - **Tabs** → organized Details, Related Lists, and Custom LWCs.
- Dragged the custom LWCs (like progressTracker) into these record pages.

3. Tabs

- Created navigation tabs for:
  - **Student**
  - **Course**
  - **Assignments**
  - (Future scope: Reports, Teacher Portal).
- Ensured each tab provides easy access to records and related lists.

4. Home Page Layouts

- Configured a **custom Home Page** for the Student Portal.
- Added components:
  - **Recent Records** (recently viewed courses/assignments).
  - **Reports/Dashboards** (progress charts and submission counts).
  - **Custom LWCs** like courseRecommendation to show suggested courses.
- Tailored layout for the **Student profile** so students land on this dashboard when logging in.

5. Utility Bar

- Added a **Utility Bar** to the custom Student Lightning App.
- Utility items included:
  - **Application Summary (custom view of records)**
  - **Recent Students** list.
- Provided persistent access at the bottom of the app for quick navigation.

6. Lightning Web Components (LWCs)

- **Progress Tracker (progressTracker)** → Displays completion percentage of courses with a progress bar.
- **Course Recommendation (courseRecommendation)** → Suggests top/recommended courses (connected to CourseController Apex).
- Started building **Assignment Submission (assignmentSubmission)** to allow file uploads and status tracking.

7. Apex with LWC

- Created **Apex classes** to fetch data for LWCs:
  - CourseController → fetches recommended courses.
  - Planned TeacherController (for teacher portal) but currently fixing field API names.
- Used @AuraEnabled(cacheable=true) for read-only queries.

8. Events in LWC

- Implemented event handling in LWCs (e.g., updating progressValue dynamically).
- Future scope: Fire custom events when assignments are submitted or courses are enrolled.

9. Wire Adapters

- Used @wire with Apex methods in courseRecommendation to fetch recommended courses dynamically.
- Bound the data directly to UI for auto-refresh.

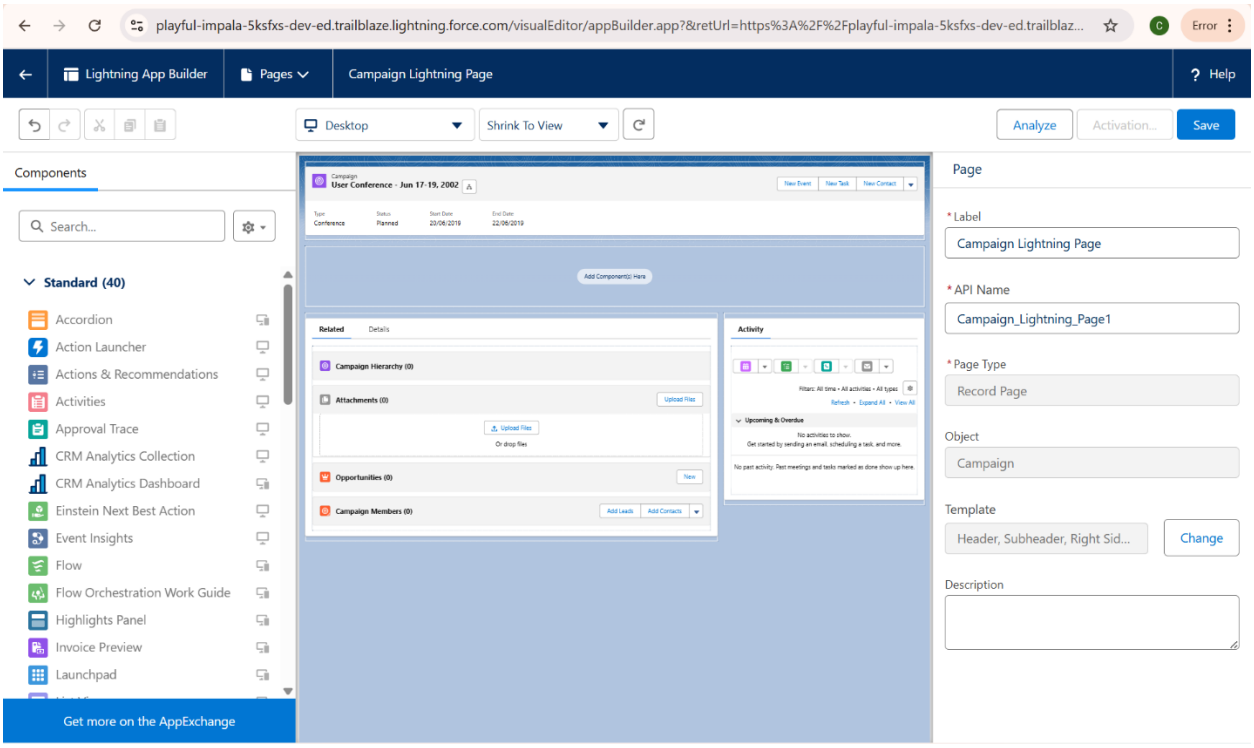
10. Imperative Apex Calls

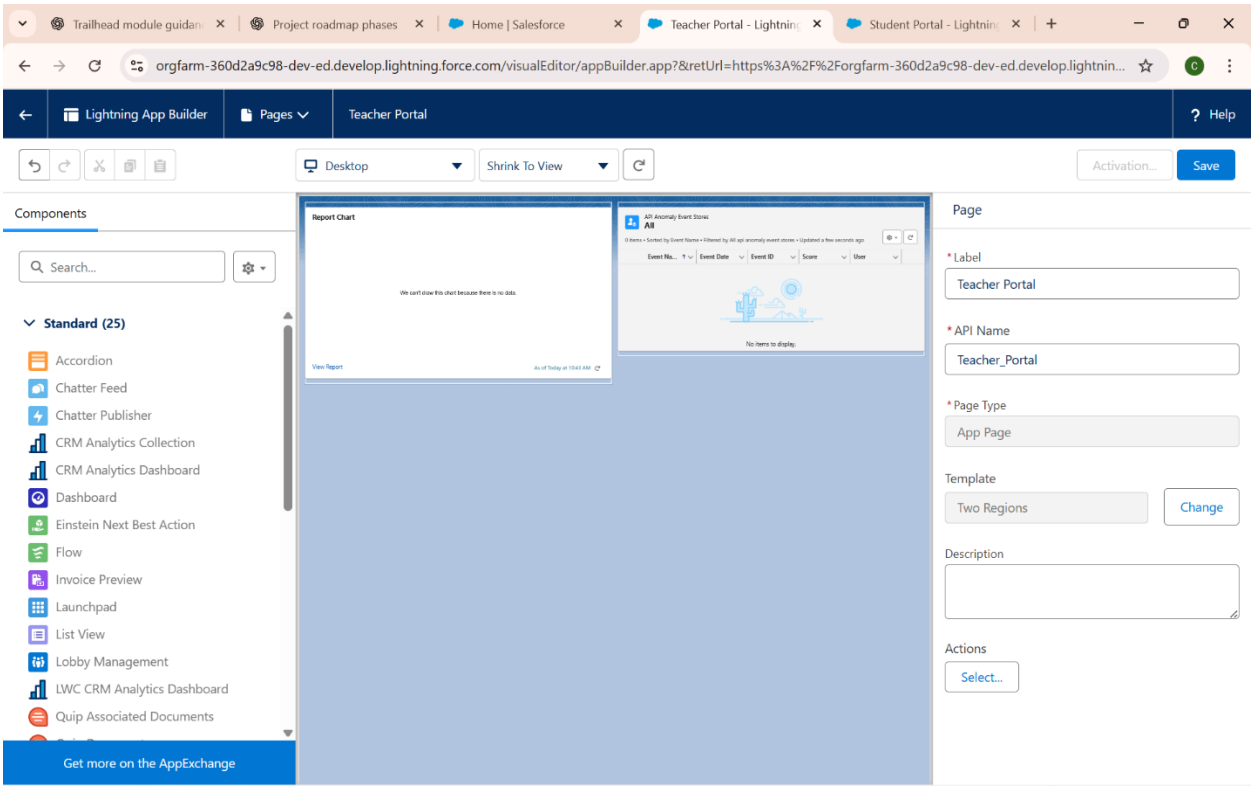
- Set up structure to call Apex imperatively (for actions like submitting an assignment or updating teacher records).
- Will be used in Teacher Dashboard and Assignment Submission LWC.

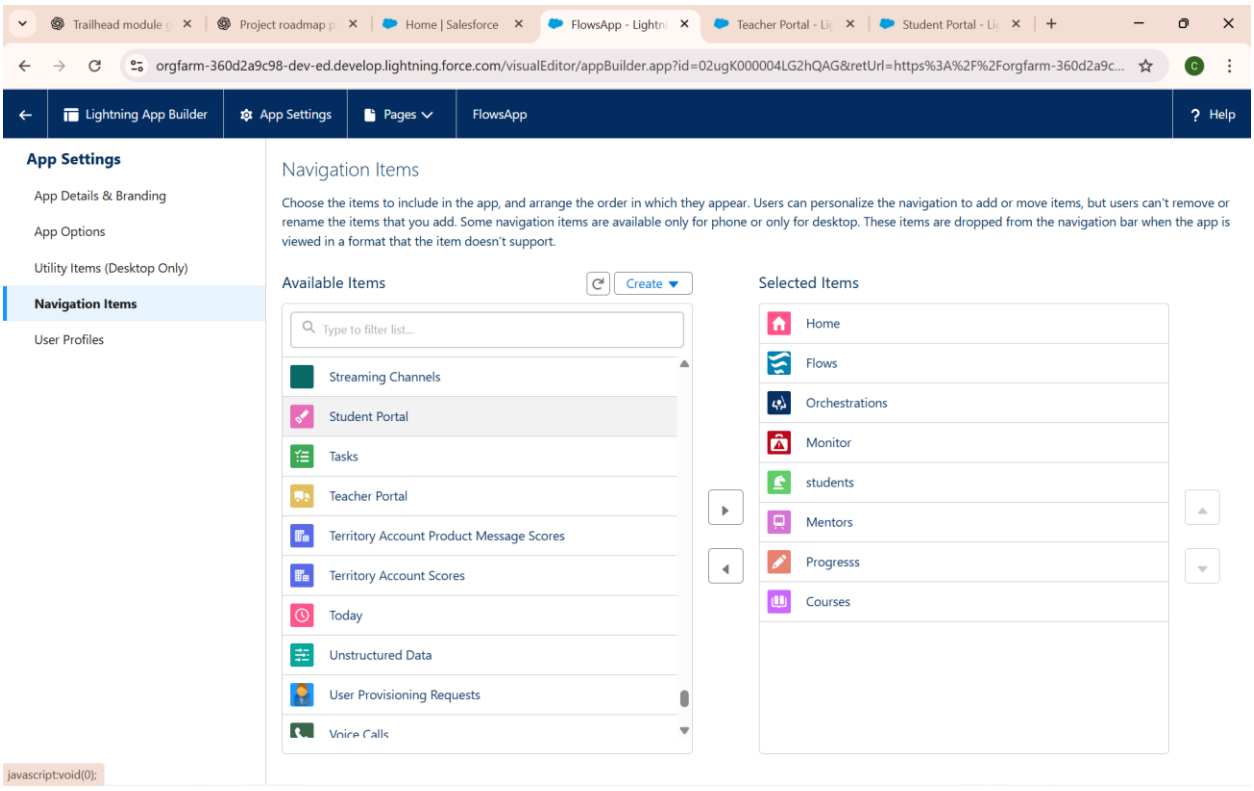
11. Navigation Service

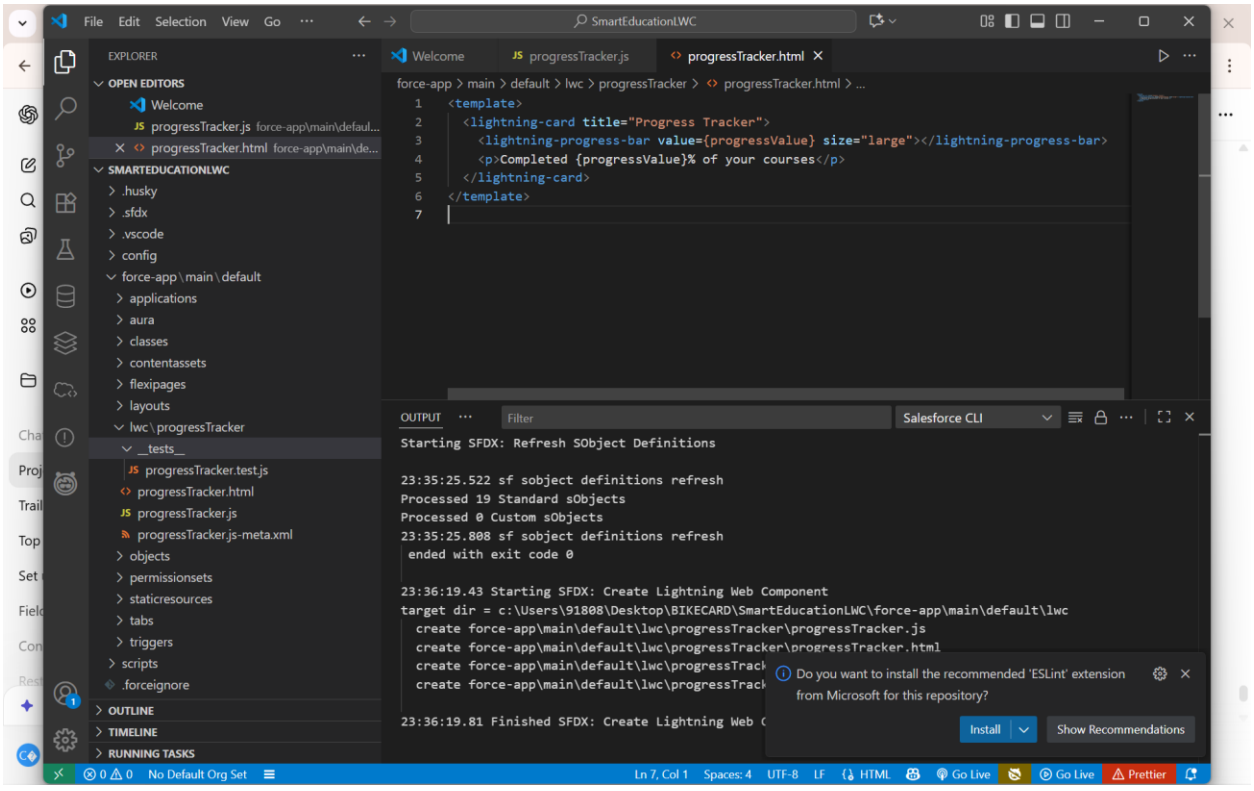
- Configured navigation so users can move from **Student Portal → Course Record → Assignments** easily.
- Example: Clicking on a course from courseRecommendation will redirect to that course's record page.

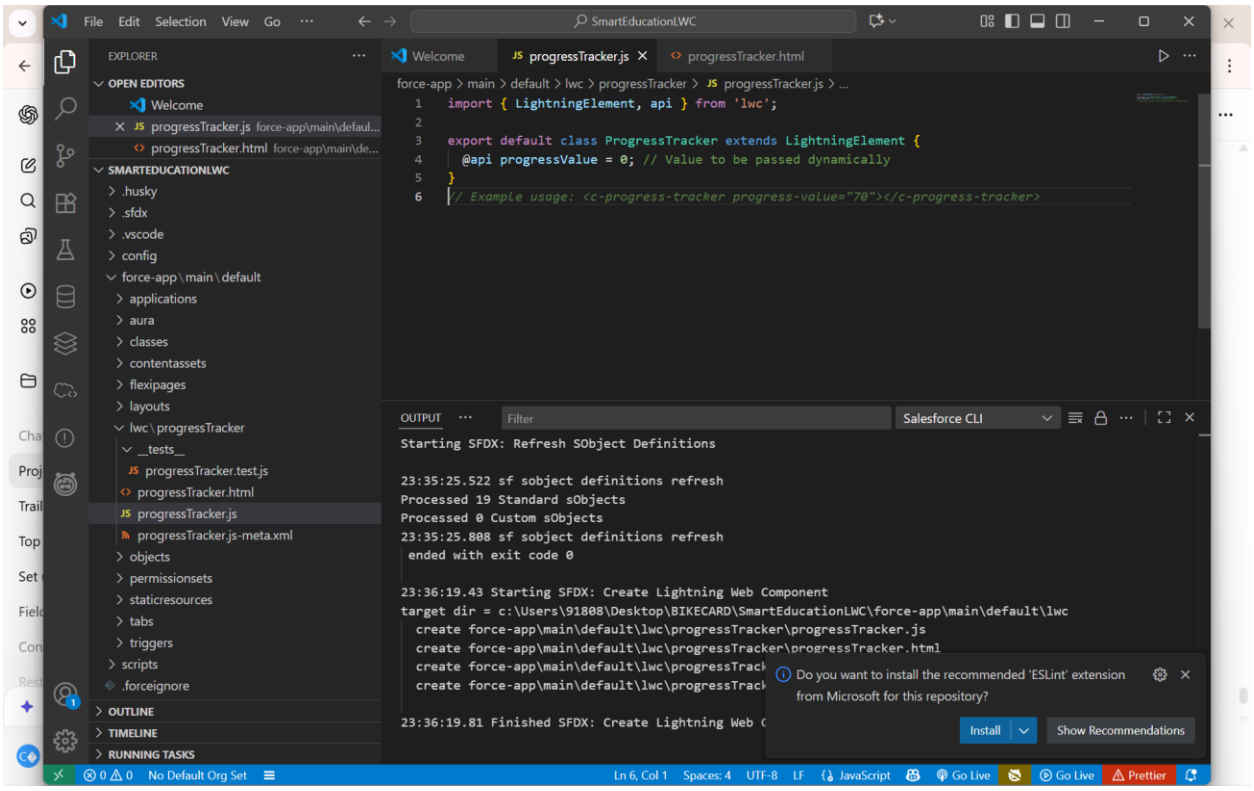
Snap Shots :

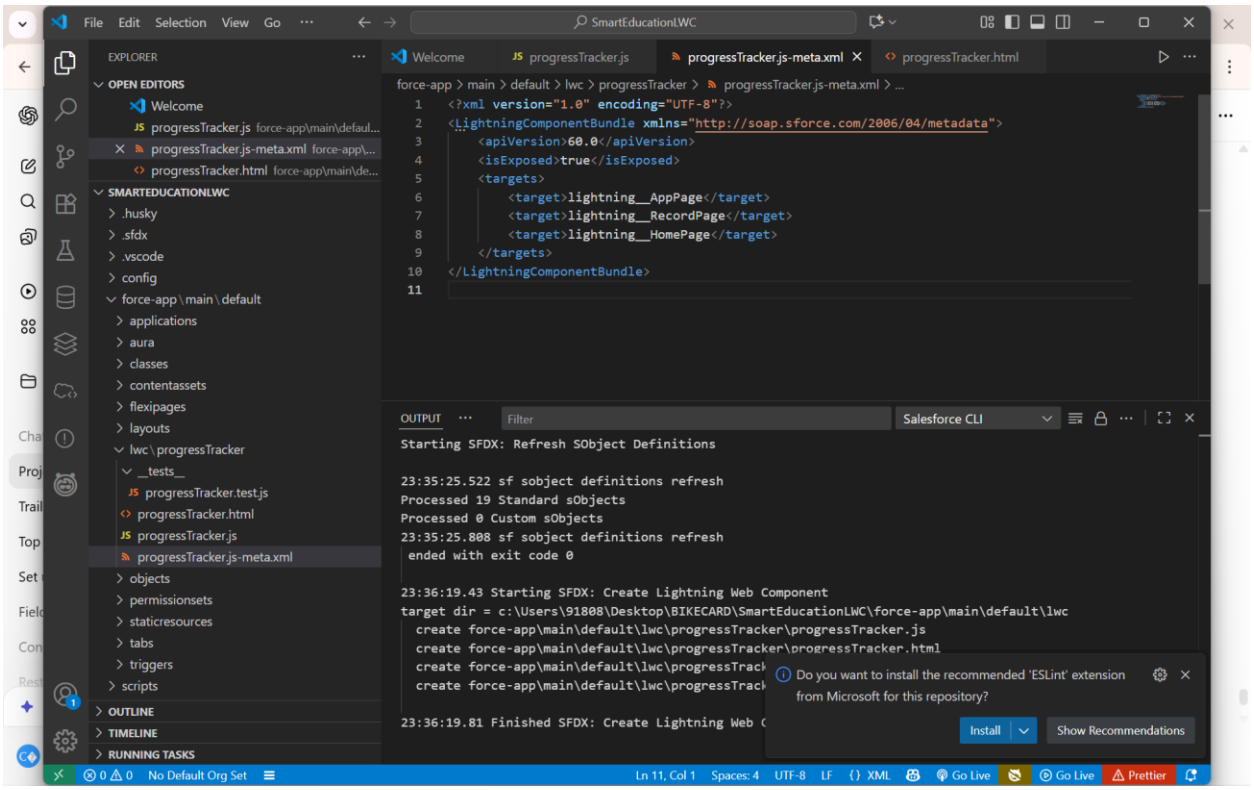

playful-impala-5ksfxs-dev-ed.trailblaze.lightning.force.com/visualEditor/appBuilder.app?&retUrl=https%3A%2F%2Fplayful-impala-5ksfxs-dev-ed.trailblaz...
Lightning App Builder
Pages
Campaign Lightning Page
Help
Desktop
Shrink To View
Analyze
Activation...
Save
Components
Search...
Standard (40)
Accordion
Action Launcher
Actions & Recommendations
Activities
Approval Trace
CRM Analytics Collection
CRM Analytics Dashboard
Einstein Next Best Action
Event Insights
Flow
Flow Orchestration Work Guide
Highlights Panel
Invoice Preview
Launchpad
Get more on the AppExchange
Page
Label
Campaign Lightning Page
API Name
Campaign_Lightning_Page1
Page Type
Record Page
Object
Campaign
Template
Header, Subheader, Right Sid...
Change
Description

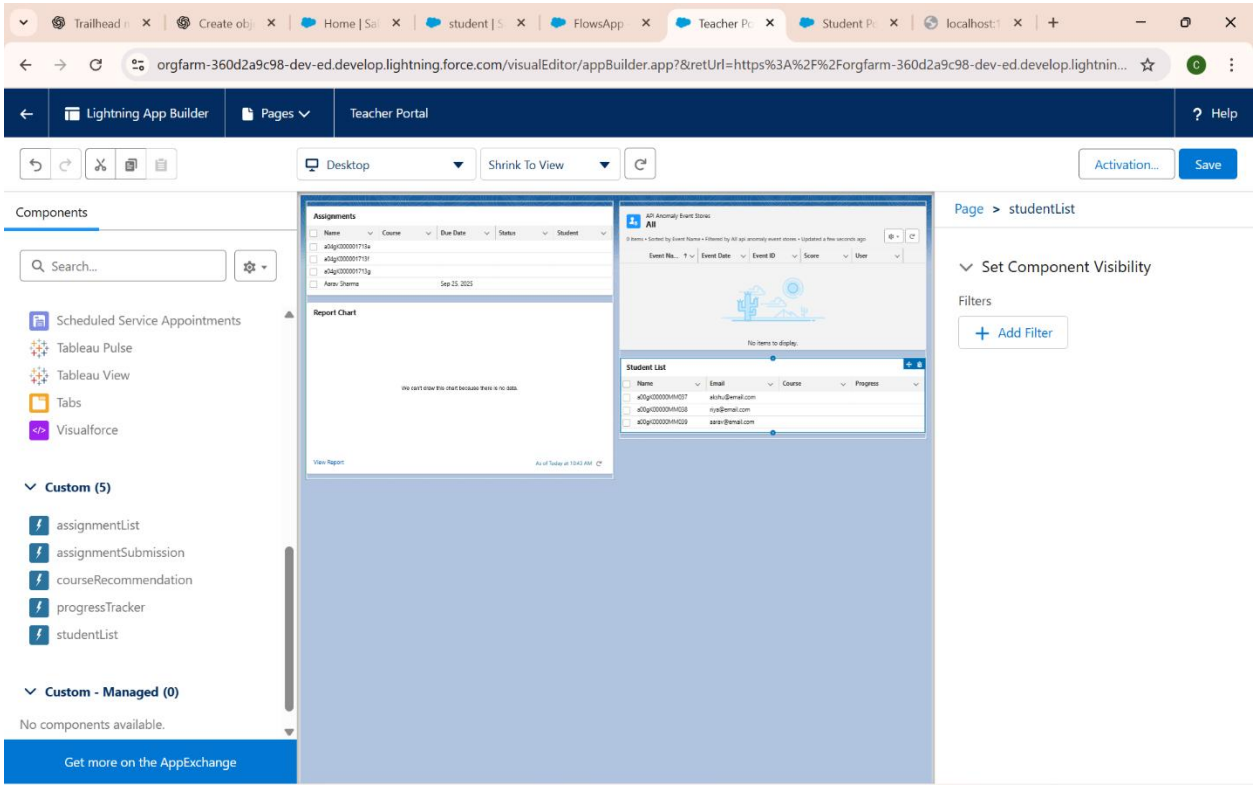

Trailhead module guidan
Project roadmap phases
Home | Salesforce
Teacher Portal - Lightnin
Student Portal - Lightnin
orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?&retUrl=https%3A%2F%2Forgfarm-360d2a9c98-dev-ed.develop.lightnin...
Lightning App Builder
Pages
Teacher Portal
Help
Desktop
Shrink To View
Activation...
Save
Components
Search...
Standard (25)
Accordion
Chatter Feed
Chatter Publisher
CRM Analytics Collection
CRM Analytics Dashboard
Dashboard
Einstein Next Best Action
Flow
Invoice Preview
Launchpad
List View
Lobby Management
LWC CRM Analytics Dashboard
Quip Associated Documents
Get more on the AppExchange
Report Chart
Page
Label
Teacher Portal
API Name
Teacher_Portal
Page Type
App Page
Template
Two Regions
Change
Description
Actions
Select...

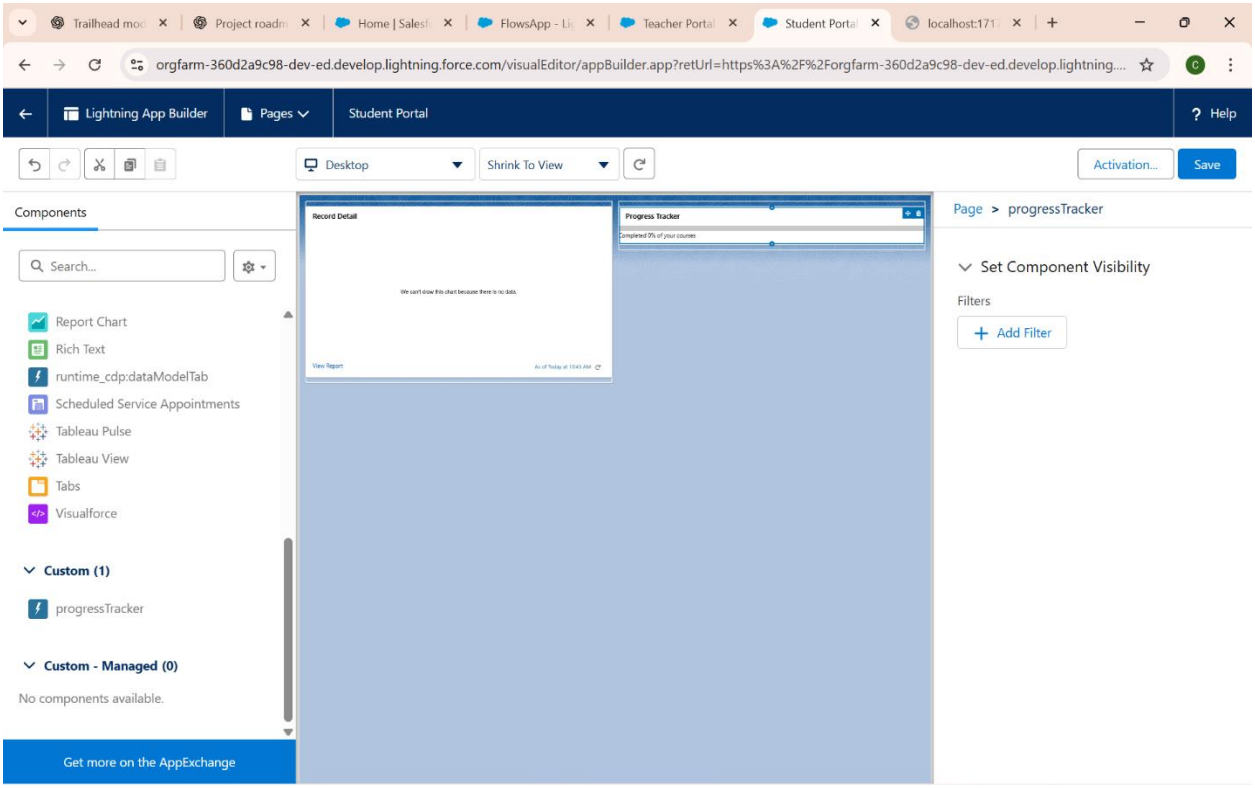

Trailhead module
Project roadmap
Home | Salesforce
FlowsApp - Lightn
Teacher Portal - Li
Student Portal - Li
orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02ugK000004LG2hQAG&retUrl=https%3A%2F%2Forgfarm-360d2a9c...
Lightning App Builder
App Settings
Pages
FlowsApp
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
Navigation Items
Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.
Available Items
Create
Type to filter list...
Streaming Channels
Student Portal
Tasks
Teacher Portal
Territory Account Product Message Scores
Territory Account Scores
Today
Unstructured Data
User Provisioning Requests
Voice Calls
Selected Items
Home
Flows
Orchestrations
Monitor
students
Mentors
Progresss
Courses
javascript:void(0);

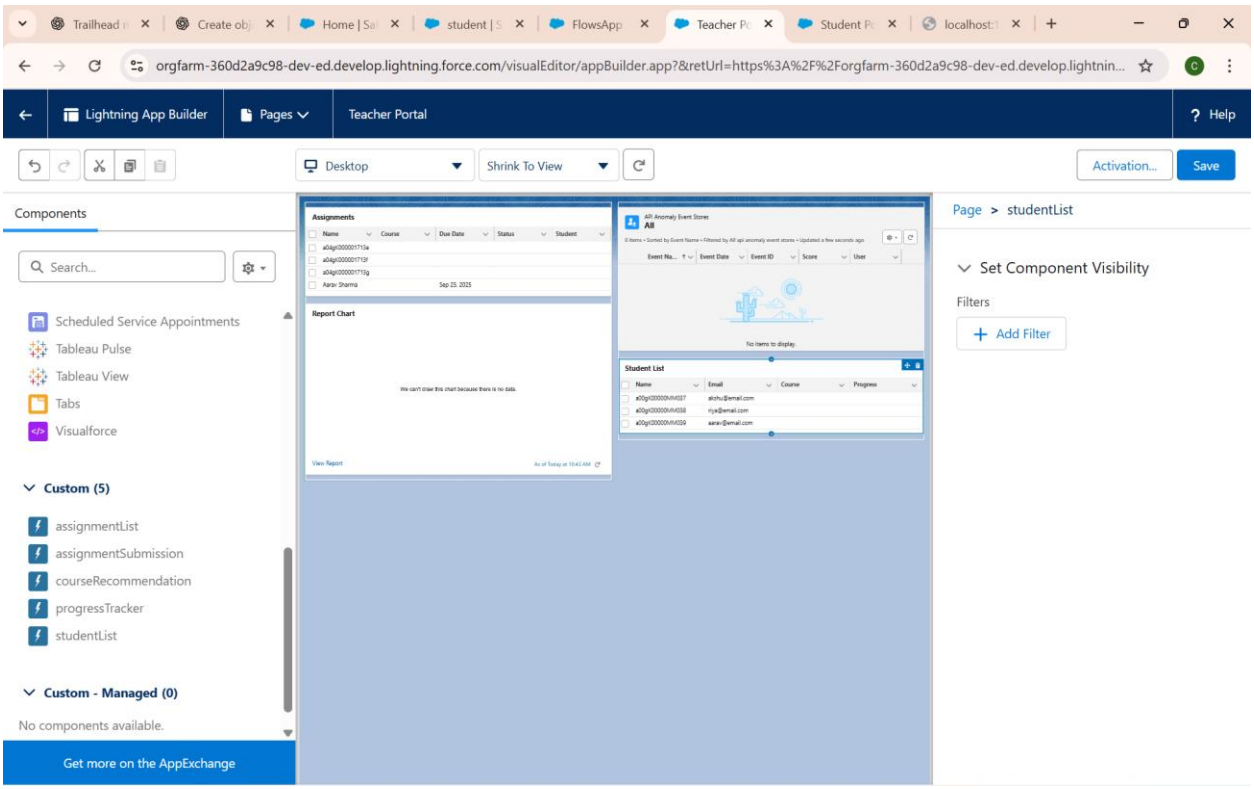

File Edit Selection View Go
SmartEducationLWC
EXPLORER
OPEN EDITORS
Welcome
progressTracker.js force-app\main\defaul...
progressTracker.html force-app\main\de...
SMARTEDUCATIONLWC
.husky
.sfdx
.vscode
config
force-app\main\default
applications
aura
classes
contentassets
flexipages
layouts
lwc\progressTracker
__tests__
progressTracker.test.js
progressTracker.html
progressTracker.js
progressTracker.js-meta.xml
objects
permissionsets
staticresources
tabs
triggers
scripts
.forceignore
OUTLINE
TIMELINE
RUNNING TASKS
Welcome
progressTracker.js
progressTracker.html
force-app > main > default > lwc > progressTracker > progressTracker.html > ...
1 <template>
2 <lightning-card title="Progress Tracker">
3 <lightning-progress-bar value={progressValue} size="large"></lightning-progress-bar>
4 Completed {progressValue}% of your courses
5 </lightning-card>
6 </template>
7
OUTPUT
Filter
Salesforce CLI
Starting SFDX: Refresh SObject Definitions
23:35:25.522 sf sobject definitions refresh
Processed 19 Standard sObjects
Processed 0 Custom sObjects
23:35:25.808 sf sobject definitions refresh
ended with exit code 0
23:36:19.43 Starting SFDX: Create Lightning Web Component
target dir = c:\Users\91808\Desktop\BIKECARD\SmartEducationLWC\force-app\main\default\lwc
create force-app\main\default\lwc\progressTracker\progressTracker.js
create force-app\main\default\lwc\progressTracker\progressTracker.html
23:36:19.81 Finished SFDX: Create Lightning Web
Do you want to install the recommended 'ESLint' extension from Microsoft for this repository?
Install
Show Recommendations
No Default Org Set
Ln 7, Col 1
Spaces: 4
UTF-8
LF
HTML
Go Live
Prettier

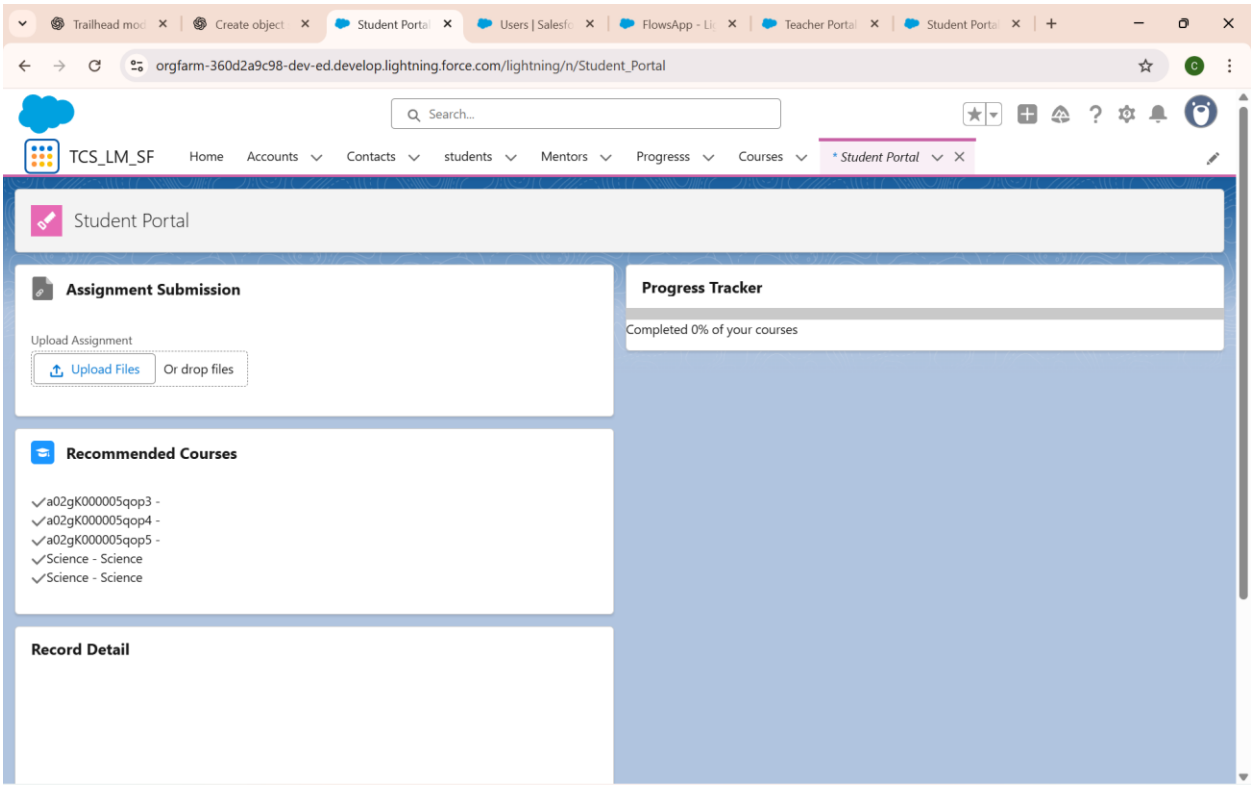

File Edit Selection View Go
SmartEducationLWC
EXPLORER
OPEN EDITORS
Welcome
progressTracker.js force-app\main\defaul...
progressTracker.html force-app\main\de...
SMARTEDUCATIONLWC
.husky
.sfdx
.vscode
config
force-app\main\default
applications
aura
classes
contentassets
flexipages
layouts
lwc\progressTracker
__tests__
progressTracker.test.js
progressTracker.html
progressTracker.js
progressTracker.js-meta.xml
objects
permissionsets
staticresources
tabs
triggers
scripts
.forceignore
OUTLINE
TIMELINE
RUNNING TASKS
Welcome
progressTracker.js
progressTracker.html
force-app > main > default > lwc > progressTracker > progressTracker.js > ...
1 import { LightningElement, api } from 'lwc';
2
3 export default class ProgressTracker extends LightningElement {
4 @api progressValue = 0; // Value to be passed dynamically
5 }
6 // Example usage: <c-progress-tracker progress-value="70"></c-progress-tracker>
OUTPUT
Filter
Salesforce CLI
Starting SFDX: Refresh SObject Definitions
23:35:25.522 sf sobject definitions refresh
Processed 19 Standard sObjects
Processed 0 Custom sObjects
23:35:25.808 sf sobject definitions refresh
ended with exit code 0
23:36:19.43 Starting SFDX: Create Lightning Web Component
target dir = c:\Users\91808\Desktop\BIKECARD\SmartEducationLWC\force-app\main\default\lwc
create force-app\main\default\lwc\progressTracker\progressTracker.js
create force-app\main\default\lwc\progressTracker\progressTracker.html
23:36:19.81 Finished SFDX: Create Lightning Web
Do you want to install the recommended 'ESLint' extension from Microsoft for this repository?
Install
Show Recommendations
No Default Org Set
Ln 6, Col 1
Spaces: 4
UTF-8
LF
JavaScript
Go Live
Prettier

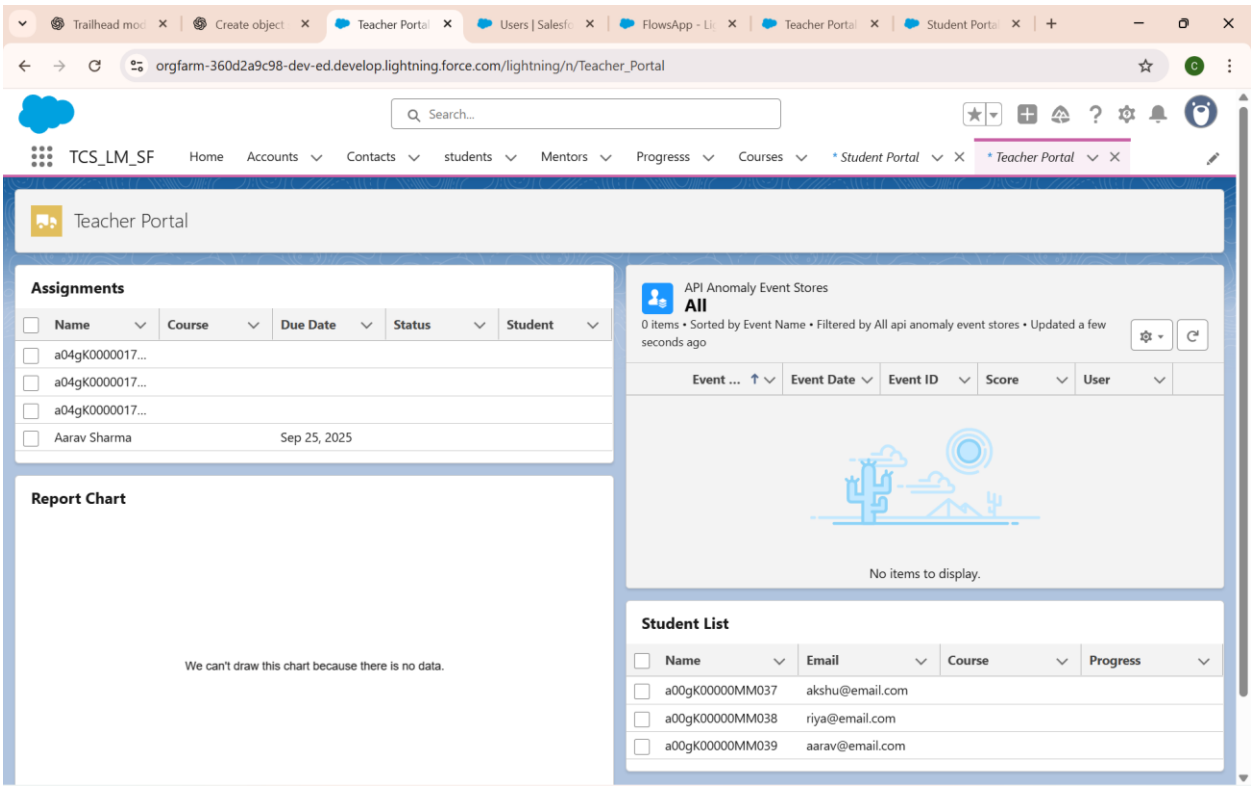

File Edit Selection View Go
SmartEducationLWC
EXPLORER
OPEN EDITORS
Welcome
progressTracker.js force-app\main\defaul...
progressTracker.js-meta.xml force-app\...
progressTracker.html force-app\main\de...
SMARTEDUCATIONLWC
.husky
.sfdx
.vscode
config
force-app\main\default
applications
aura
classes
contentassets
flexipages
layouts
lwc\progressTracker
__tests__
progressTracker.test.js
progressTracker.html
progressTracker.js
progressTracker.js-meta.xml
objects
permissionsets
staticresources
tabs
triggers
scripts
OUTLINE
TIMELINE
RUNNING TASKS
Welcome
progressTracker.js
progressTracker.js-meta.xml
progressTracker.html
force-app > main > default > lwc > progressTracker > progressTracker.js-meta.xml > ...
1 <?xml version="1.0" encoding="UTF-8"?>
2 <LightningComponentBundle xmlns="http://soap.sforce.com/2006/04/metadata">
3 <apiVersion>60.0</apiVersion>
4 <isExposed>true</isExposed>
5 <targets>
6 <target>lightning__AppPage</target>
7 <target>lightning__RecordPage</target>
8 <target>lightning__HomePage</target>
9 </targets>
10 </LightningComponentBundle>
11
OUTPUT
Filter
Salesforce CLI
Starting SFDX: Refresh SObject Definitions
23:35:25.522 sf sobject definitions refresh
Processed 19 Standard sObjects
Processed 0 Custom sObjects
23:35:25.808 sf sobject definitions refresh
ended with exit code 0
23:36:19.43 Starting SFDX: Create Lightning Web Component
target dir = c:\Users\91808\Desktop\BIKECARD\SmartEducationLWC\force-app\main\default\lwc
create force-app\main\default\lwc\progressTracker\progressTracker.js
create force-app\main\default\lwc\progressTracker\progressTracker.html
23:36:19.81 Finished SFDX: Create Lightning Web
Do you want to install the recommended 'ESLint' extension from Microsoft for this repository?
Install
Show Recommendations
No Default Org Set
Ln 11, Col 1
Spaces: 4
UTF-8
LF
XML
Go Live
Prettier


Trailhead
Create obj
Home | Sal
student | S
FlowsApp
Teacher Pc
Student Pa
localhost:1
orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?&retUrl=https%3A%2F%2Forgfarm-360d2a9c98-dev-ed.develop.lightnin...
Lightning App Builder
Pages
Teacher Portal
Help
Desktop
Shrink To View
Activation...
Save
Components
Search...
Scheduled Service Appointments
Tableau Pulse
Tableau View
Tabs
Visualforce
Custom (5)
assignmentList
assignmentSubmission
courseRecommendation
progressTracker
studentList
Custom - Managed (0)
No components available.
Get more on the AppExchange
Assignments
Report Chart
Student List
Page > studentList
Set Component Visibility
Filters
Add Filter


Trailhead mod
Project roadm
Home | Salesf
FlowsApp - Lic
Teacher Portal
Student Portal
localhost:171
orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?retUrl=https%3A%2F%2Forgfarm-360d2a9c98-dev-ed.develop.lightning....
Lightning App Builder
Pages
Student Portal
Help
Desktop
Shrink To View
Activation...
Save
Components
Search...
Report Chart
Rich Text
runtime_cdp:dataModelTab
Scheduled Service Appointments
Tableau Pulse
Tableau View
Tabs
Visualforce
Custom (1)
progressTracker
Custom - Managed (0)
No components available.
Get more on the AppExchange
Record Detail
Progress Tracker
Page > progressTracker
Set Component Visibility
Filters
Add Filter


Lightning App Builder
Pages
Teacher Portal
Help
Desktop
Shrink To View
Activation...
Save
Components
Search...
Scheduled Service Appointments
Tableau Pulse
Tableau View
Tabs
Visualforce
Custom (5)
assignmentList
assignmentSubmission
courseRecommendation
progressTracker
studentList
Custom - Managed (0)
No components available.
Get more on the AppExchange
Page > studentList
Set Component Visibility
Filters
Add Filter


orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/n/Student_Portal
Search...
TCS_LM_SF
Home
Accounts
Contacts
students
Mentors
Progresss
Courses
* Student Portal
Student Portal
Assignment Submission
Upload Assignment
Upload Files
Or drop files
Progress Tracker
Completed 0% of your courses
Recommended Courses
a02gK000005qop3 -
a02gK000005qop4 -
a02gK000005qop5 -
Science - Science
Science - Science
Record Detail


orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/n/Teacher_Portal
Search...
TCS_LM_SF
Home
Accounts
Contacts
students
Mentors
Progresss
Courses
* Student Portal
* Teacher Portal
Teacher Portal
Assignments
Name
Course
Due Date
Status
Student
a04gK0000017...
a04gK0000017...
a04gK0000017...
Aarav Sharma
Sep 25, 2025
Report Chart
We can't draw this chart because there is no data.
API Anomaly Event Stores
All
0 items • Sorted by Event Name • Filtered by All api anomaly event stores • Updated a few seconds ago
Event ...
Event Date
Event ID
Score
User
No items to display.
Student List
Name
Email
Course
Progress
a00gK00000MM037
akshu@email.com
a00gK00000MM038
riya@email.com
a00gK00000MM039
aarav@email.com