

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 :

This screenshot shows the Lightning App Builder interface for a page titled "Campaign Lightning Page". The interface includes a top navigation bar with the Lightning App Builder logo, a search bar, and a "Pages" dropdown menu. Below the navigation bar is a toolbar with icons for undo, redo, delete, and a "Shrink To View" button. The main workspace is divided into three sections: Components, a central canvas, and Page Properties.

Components: A list of standard components is shown on the left, including 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, and more. A search bar is provided for finding components.

Central Canvas: The canvas displays a preview of the "Campaign Lightning Page". It features a header section with a title "User Conference - Jun 17-19, 2002" and a "Details" section. Below the details section are several sub-sections: "Campaign Hierarchy (0)", "Attachments (0)", "Opportunities (0)", and "Campaign Members (0)". An "Activity" section is also visible on the right side of the canvas.

Page Properties: The right sidebar contains the "Page" properties section. It includes fields for "Label" (Campaign Lightning Page), "API Name" (Campaign_Lighting_Page1), "Page Type" (Record Page), "Object" (Campaign), and "Template" (Header, Subheader, Right Sid...). A "Description" field is also present.

This screenshot shows the Lightning App Builder interface for a page titled "Teacher Portal". The interface is similar to the previous one, with a top navigation bar, a toolbar, and a main workspace divided into Components, a central canvas, and Page Properties.

Components: A list of standard components is shown on the left, including 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, and Quip Associated Documents. A search bar is provided for finding components.

Central Canvas: The canvas displays a preview of the "Teacher Portal". It features a "Report Chart" section on the left and a "All Analytics Event Stories" section on the right. The "Report Chart" section shows a message: "We can't show this chart because there is no data." The "All Analytics Event Stories" section shows a table with columns: Event No., Event Date, Event ID, Score, and User. The table is currently empty, with a message: "No items to display."

Page Properties: The right sidebar contains the "Page" properties section. It includes fields for "Label" (Teacher Portal), "API Name" (Teacher_Portal), "Page Type" (App Page), "Template" (Two Regions), and "Description". An "Actions" section with a "Select..." button is also present.

Trailhead module x Project roadmap p x Home | Salesforce x FlowsApp - Lightni x Teacher Portal - Li x Student Portal - Li x + -

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

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
- Progress
- Courses

javascriptvoid(0);

File Edit Selection View Go ... SmartEducationLWC

EXPLORE

- OPEN EDITORS
 - Welcome
 - JS progressTracker.js force-app/main/default/...
 - X progressTracker.html force-app/main/de...
- SMARTEDUCATIONLWC
 - .husky
 - .sfdx
 - .vscode
 - config
 - force-app/main/default
 - applications
 - aura
 - classes
 - contentassets
 - flexipages
 - layouts
 - lwc/progressTracker
 - __tests__
 - JS progressTracker.test.js
 - progressTracker.html
 - JS progressTracker.js
 - progressTracker.js-meta.xml
 - objects
 - permissionsets
 - staticresources
 - tabs
 - triggers
 - scripts
 - .forceignore
 - OUTLINE
 - TIMELINE
 - RUNNING TASKS

```
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   <p>Completed {progressValue}% of your courses</p>
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

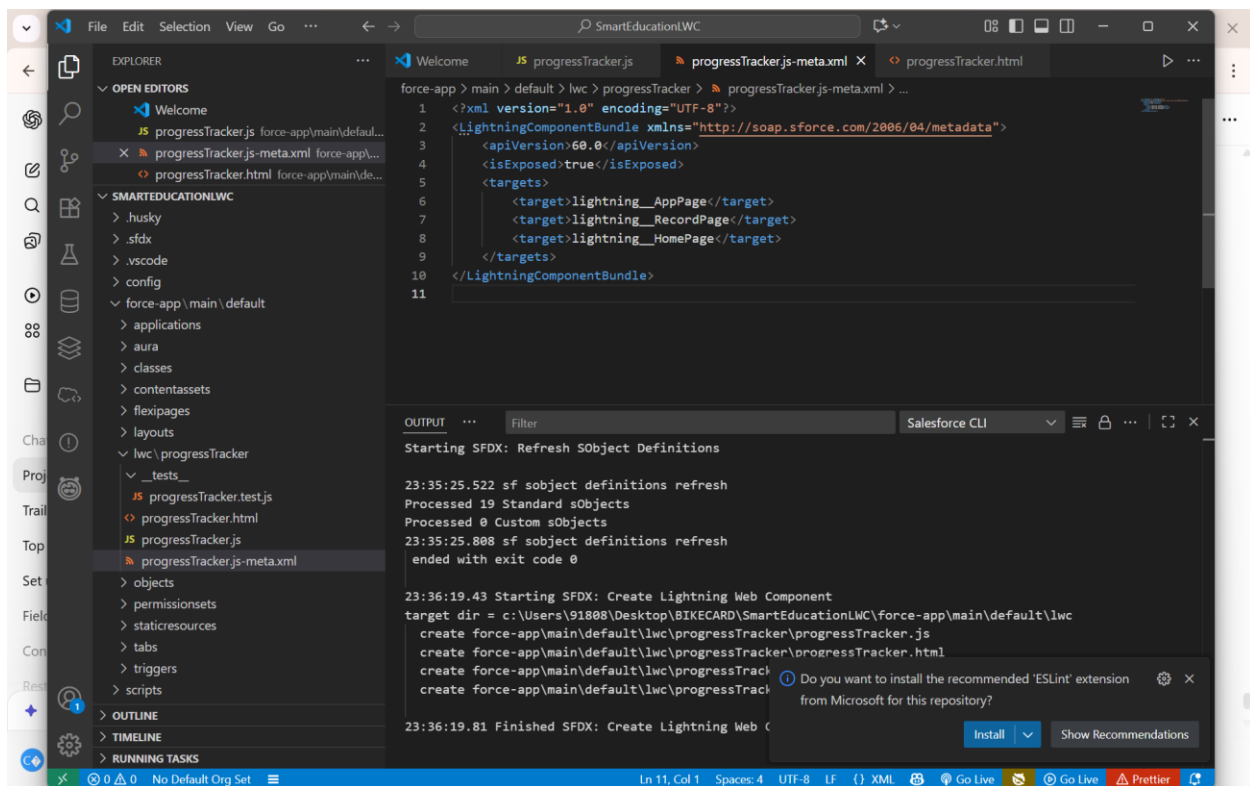
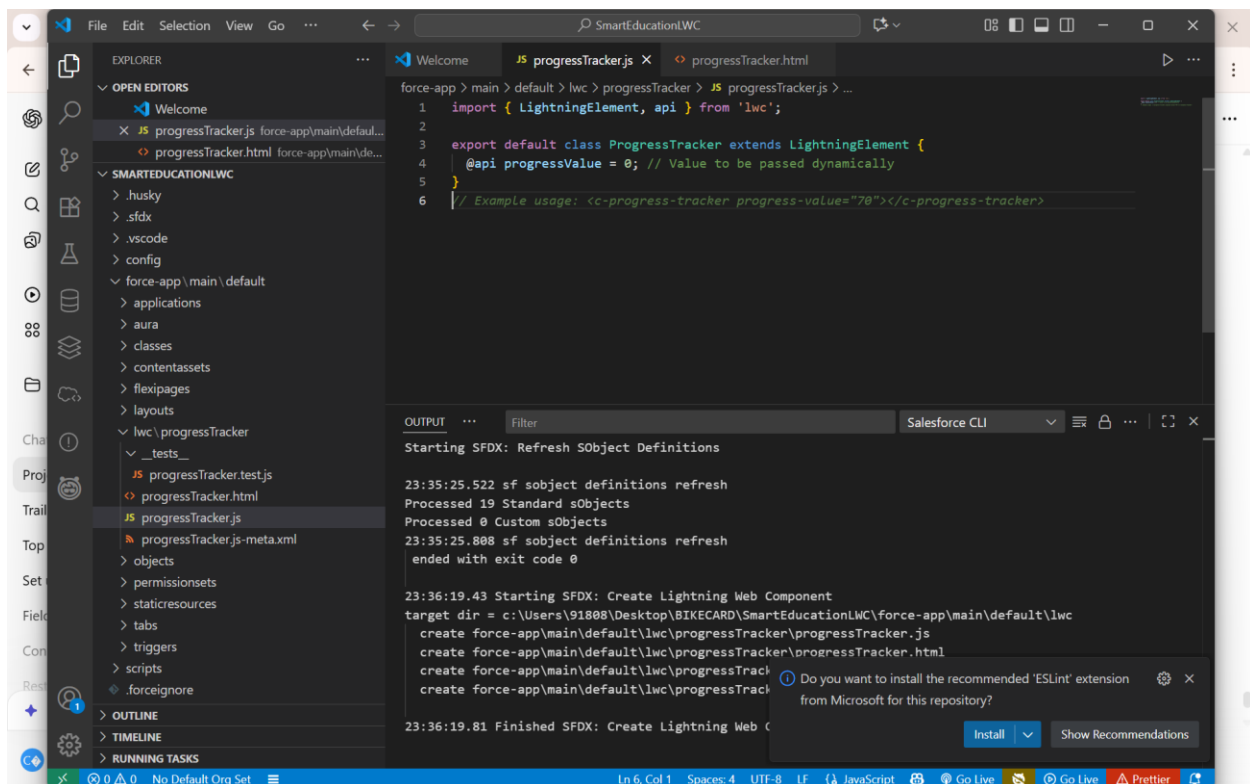
23:36:19.43 Starting SFDX: Create Lightning Web Component
target dir = c:\Users\91808\Desktop\BIKECARD\SmartEducationLWC\force-app\main\default\lwc
create force-app\main\default\lwc\progressTracker\progressTracker.js
create force-app\main\default\lwc\progressTracker\progressTracker.html
create force-app\main\default\lwc\progressTrack
create force-app\main\default\lwc\progressTrack

23:36:19.81 Finished SFDX: Create Lightning Web C

Do you want to install the recommended 'ESLint' extension from Microsoft for this repository?

Install Show Recommendations

Ln 7, Col 1 Spaces: 4 UTF-8 LF HTML Go Live Go Live Prettier



Trailhead | Create obj | Home | student | FlowsApp | Teacher Portal | Student Portal | 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

Name	Course	Due Date	Status	Student
409g000001715a				
409g000001715b				
409g000001715c				
409g000001715d				
409g000001715e				
409g000001715f				
409g000001715g				
409g000001715h				
409g000001715i				
409g000001715j				
409g000001715k				
409g000001715l				
409g000001715m				
409g000001715n				
409g000001715o				
409g000001715p				
409g000001715q				
409g000001715r				
409g000001715s				
409g000001715t				
409g000001715u				
409g000001715v				
409g000001715w				
409g000001715x				
409g000001715y				
409g000001715z				
409g000001715aa				
409g000001715ab				
409g000001715ac				
409g000001715ad				
409g000001715ae				
409g000001715af				
409g000001715ag				
409g000001715ah				
409g000001715ai				
409g000001715aj				
409g000001715ak				
409g000001715al				
409g000001715am				
409g000001715an				
409g000001715ao				
409g000001715ap				
409g000001715aq				
409g000001715ar				
409g000001715as				
409g000001715at				
409g000001715au				
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409g000001715aw				
409g000001715ax				
409g000001715ay				
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409g000001715ba				
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409g000001715bd				
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409g000001715bn				
409g000001715bo				
409g000001715bp				
409g000001715bq				
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409g000001715cn				
409g000001715co				
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409g000001715cq				
409g000001715cr				
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409g000001715ep				
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409g000001715er				
409g000001715es				
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409g000001715fl				
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409g000001715fr				
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409g000001715gw				
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409g000001715gy				
409g000001715gz				
409g000001715ha				
409g000001715hb				
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409g000001715hq				
409g000001715hr				
409g000001715hs				
409g000001715ht				
409g000001715hu				
409g000001715hv				
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409g000001715ku				
409g000001715kv				
409g000001715kw				

Trailhead | Create obj | Home | student | FlowsApp | Teacher P | Student P | localhost |

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Lightning App Builder Pages Teacher Portal ? Help

Desktop Shrink To View Activation... Save

Components

Search...

Scheduled Service Appointments

Tableau Pulse

Tableau View

Tablets

Visualforce

Custom (5)

- assignmentList
- assignmentSubmission
- courseRecommendation
- progressTracker
- studentList

Custom - Managed (0)

No components available.

Get more on the AppExchange

Assignments

Name	Course	Due Date	Status	Student
a02gK0000000171a				
a02gK0000000171a				
a02gK0000000171a				
a02gK0000000171a				

Report Chart

We can't draw this chart because there is no data.

View Report

As of Today at 10:42 AM - 02

Alt Anomaly Event Store

4 Items - Sorted by Event Name - Filtered by All api anomaly event stores - Updated 4 hours ago

Event No.	Event Date	Event ID	Score	User

No items to display.

Student List

Name	Email	Course	Progress
a02gK0000000171a	stu@domain.com		
a02gK0000000171a	stu@domain.com		
a02gK0000000171a	stu@domain.com		
a02gK0000000171a	stu@domain.com		

Page > studentList

Set Component Visibility

Filters

+ Add Filter

Trailhead mod | Create object | Student Portal | Users | Salesforce | FlowsApp - Li | Teacher Portal | Student Portal |

orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/n/Student_Portal

Search...

TCS_LM_SF Home Accounts Contacts students Mentors Progress Courses Student Portal

Student Portal

Assignment Submission

Upload Assignment

Upload Files Or drop files

Recommended Courses

- ✓ a02gK00000005qop3 -
- ✓ a02gK00000005qop4 -
- ✓ a02gK00000005qop5 -
- ✓ Science - Science
- ✓ Science - Science

Record Detail

Progress Tracker

Completed 0% of your courses

Trailhead mod xCreate object xTeacher Portal xUsers | Salesf...FlowsApp - Li...Teacher Portal xStudent Portal x

orgfarm-360d2a9c98-dev-ed.develop.lightning.force.com/lightning/n/Teacher_Portal

Search...

TCS_LM_SFHomeAccountsContactsstudentsMentorsProgressCoursesStudent PortalTeacher Portal

Teacher Portal

Assignments

<input type="checkbox"/>	Name	Course	Due Date	Status	Student
<input type="checkbox"/>	a04gK0000017...				
<input type="checkbox"/>	a04gK0000017...				
<input type="checkbox"/>	a04gK0000017...				
<input type="checkbox"/>	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

<input type="checkbox"/>	Name	Email	Course	Progress
<input type="checkbox"/>	a00gK00000MM037	akshu@email.com		
<input type="checkbox"/>	a00gK00000MM038	riya@email.com		
<input type="checkbox"/>	a00gK00000MM039	aarav@email.com		