

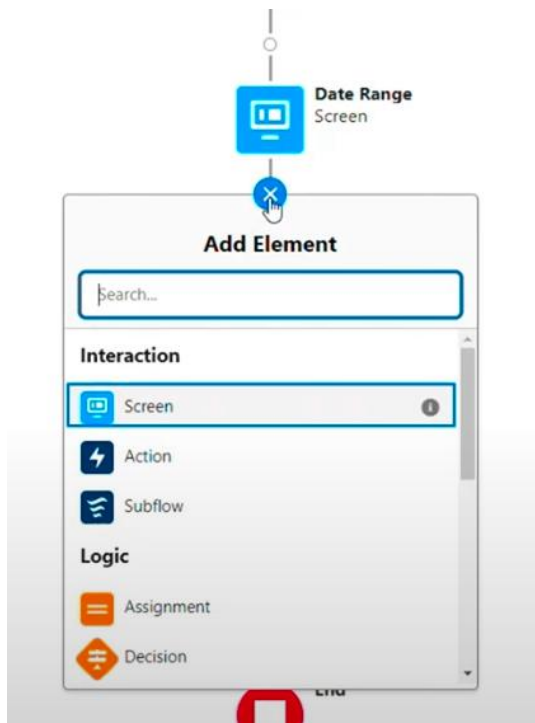
Expense Tracker Project (Phase 6: User Interface Development)

Goal

The goal of this project is to build a **Salesforce-based Expense Tracker** with a user-friendly interface that simplifies expense submission, approvals, and tracking. Custom UI elements enhance navigation, visibility, and interaction for employees, managers, and finance teams, improving overall efficiency and accessibility.

Problem Statement

Managing employee expenses manually or through standard layouts can be confusing and time-consuming. Users require intuitive pages, dashboards, and quick access to relevant data. A Salesforce-based Expense Tracker with custom UI ensures **clear visualization, easy navigation, and better interaction** with expense records.



Phase 6: User Interface Development

Phase 6 focuses on **UI Development** to make the Expense Tracker more interactive and user-friendly. **Lightning Record Pages, Lightning App Builder, dashboards, and tabs** were configured for an efficient user experience.

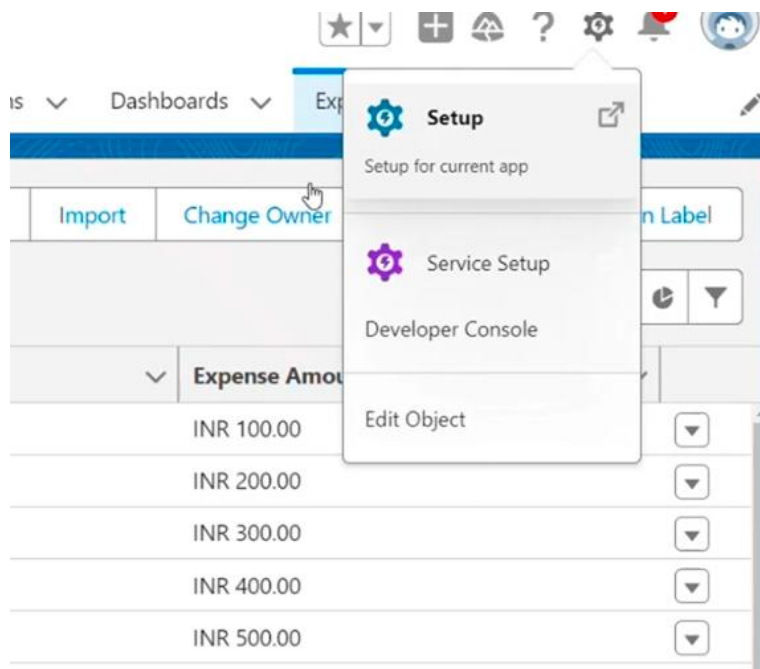
```
expensesChartjs.js X expensesChartjs.html expensesChartjs-meta.xml
force-app > main > default > lwc > expensesChartjs > JS expensesChartjs.js > ExpensesChartjs > config > data > datasets > data
export default class ExpensesChartjs extends LightningElement {
  config = {
    // ...
  };
  // ...
  async renderedCallback() {
    if (this.chartjsInitialized) {
      return;
    }
    this.chartjsInitialized = true;

    try {
      await loadScript(this, chartjs);
      const canvas = document.createElement('canvas');
      this.template.querySelector('div.chart').appendChild(canvas);
      const ctx = canvas.getContext('2d');
      this.chart = new window.Chart(ctx, this.config);
    } catch (error) {
      this.error = error;
    }
  }
}
```

```
force-app > main > default > classes > ExpenseController.cls > ExpenseController.cls > getExpnsGroupByType(Date, Date): List<AggregateResult>
public with sharing class ExpenseController {
  // ...
  @AuraEnabled(cacheable=true)
  public static List<AggregateResult> getExpnsGroupByType(Date startDate, Date endDate) {
    System.debug('--->In getExpnsGroupByType startDate: '+startDate+' ---> endDate: '+endDate)
    // ...
  }
}
```

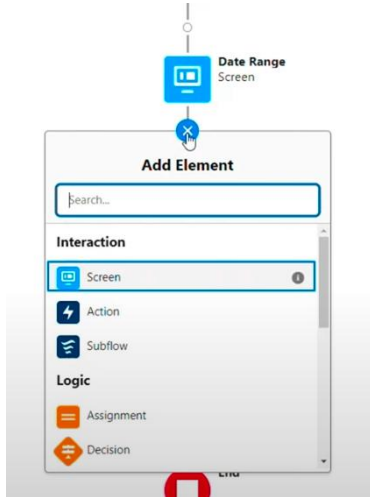
Lightning Record Pages

- Customized record pages for **Expense, Employee, and Approval** objects.
- Added related lists for quick access to approvals, expense history, and employee details.
- Improved visibility with logically grouped sections for better clarity.



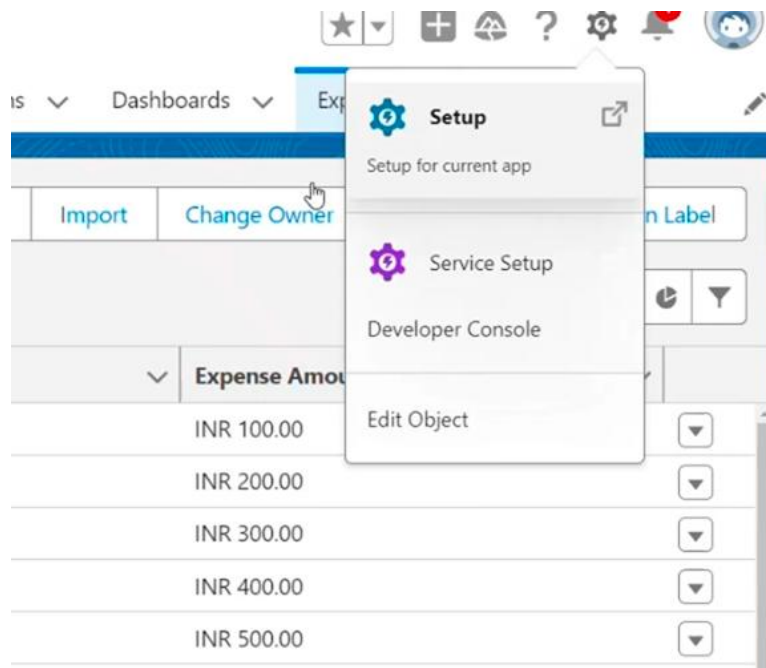
Lightning App Builder

- Designed personalized record pages with tabs and sections for **expense info, employee details, and approval status**.
- Enhanced accessibility by highlighting frequently used actions like “Submit Expense” or “Approve Expense.”



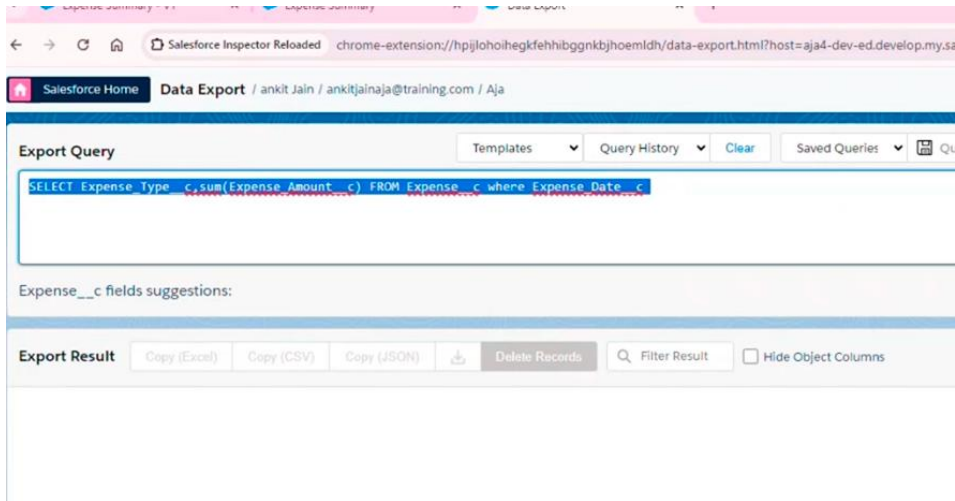
Home Page Layouts

- Created profile-specific home pages for **Employees, Managers, and Finance** teams.
- Included key metrics, charts, quick actions, and reports for easy monitoring of expense submissions and approvals.



Tabs

- Configured object and custom tabs for **Expense, Employee, Approval, and Reports**.
- Organized tabs logically to match user roles and workflow requirements.



Dashboards

- Developed a **Manager Dashboard** to track pending approvals, high-value expenses, and departmental spending.
- Developed an **Employee Dashboard** to view submitted expenses, approval status, and reimbursement history.
- Added charts and visual indicators to provide **real-time insights** into expenses and approvals.

The screenshot shows the Salesforce Data Export interface. At the top, there's a navigation bar with 'Export Query'. Below this, the 'Export Query' section contains a text area with a SQL query: `SELECT Expense_Type__c, sum(Expense_Amount__c) FROM Expense__c Group By Expense_Type__c`. Below the query area, there's a section for 'Expense__c fields suggestions' with a dropdown menu showing 'Expense_Type__c'. At the bottom, the 'Export Result' section has buttons for 'Copy (Excel)', 'Copy (CSV)', 'Copy (JSON)', 'Delete Records', 'Filter Result', and 'Hide Obj'. Below these buttons, there's a table with the following data:

	Expense_Type__c	expr0
AggregateResult	Food	93337.5
AggregateResult	Entertainment	63533.75
AggregateResult	Miscellaneous	83117.5
AggregateResult	Education	84058.75
AggregateResult	Rent	66915
AggregateResult	Utilities	70015
AggregateResult	Travel	93848.75
AggregateResult	Insurance	70758.75

Conclusion

Phase 6 successfully enhanced the **user interface of the Expense Tracker**. By customizing record pages, creating dashboards, and designing role-based home pages, the system became more interactive, responsive, and user-friendly. Employees, managers, and finance teams can now navigate and manage expense records efficiently, improving overall productivity.