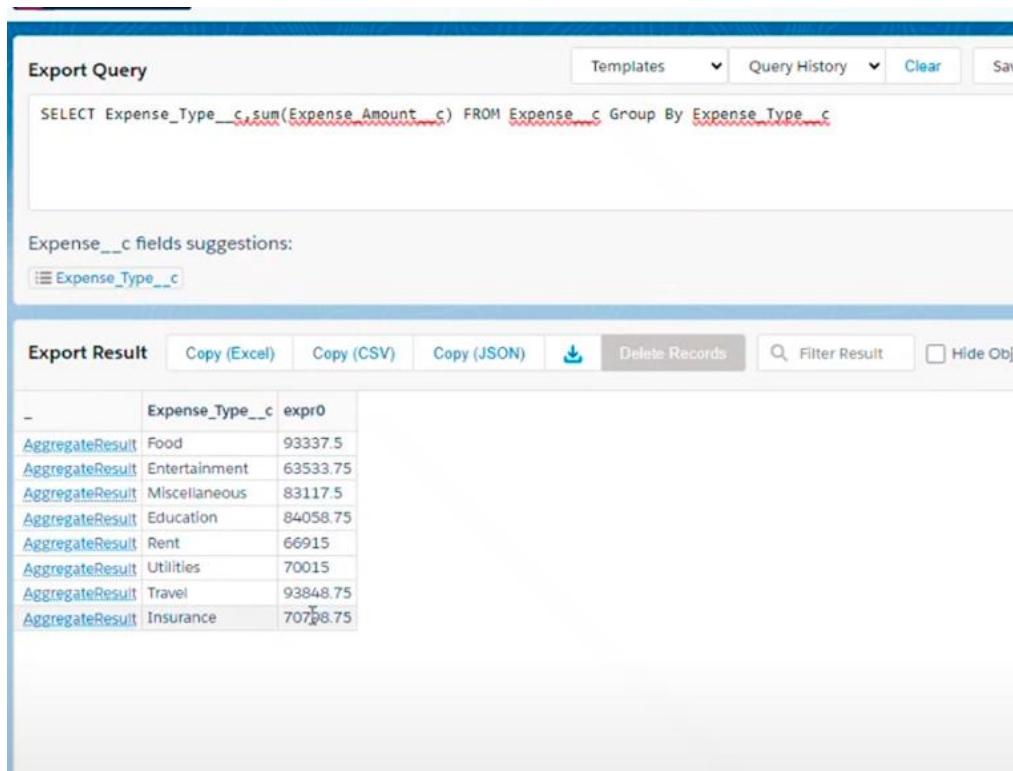**Expense Tracker Project (Phase 8: Data Management & Deployment)**

Goal

The goal of this project is to build a **Salesforce-based Expense Tracker** that ensures accurate data handling, security, and a smooth transition from sandbox to production. Proper data management and deployment practices help maintain **data integrity, reliability, and system readiness** for organizational use.

Problem Statement

Managing and migrating expense data manually can lead to errors, duplicates, and inconsistencies. Without proper deployment procedures, the system risks data loss and operational disruptions. Implementing structured data management and deployment processes ensures the Expense Tracker is accurate, secure, and production-ready.
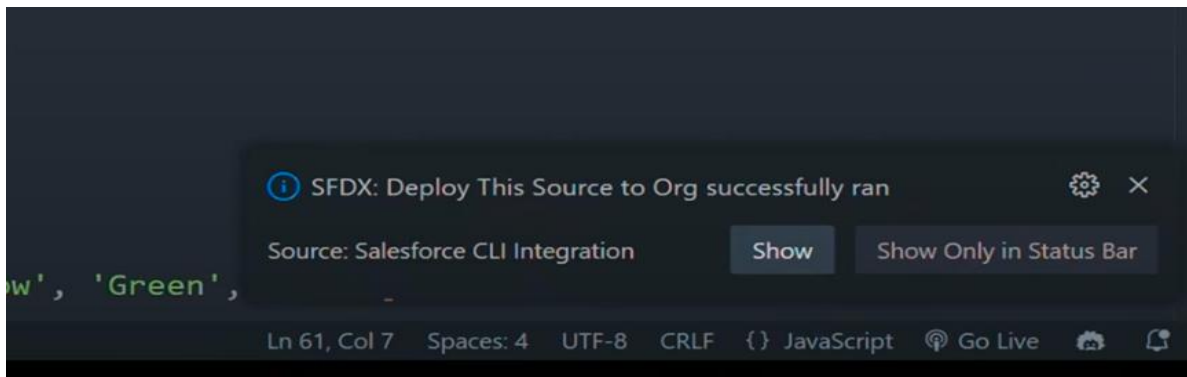

Phase 8: Data Management & Deployment

Data Import & Migration

- Imported **employee and expense records** using Salesforce Data Loader.

- Migrated existing expense and approval data to maintain continuity.

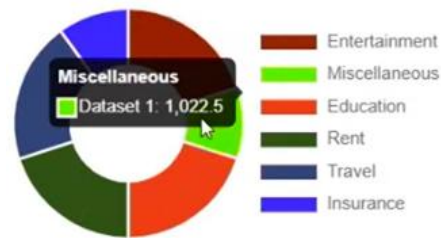- Verified data consistency after import to avoid duplication and errors.

Duplicate Management

- Defined **Duplicate Rules** to prevent multiple entries for the same expense or employee.

- Implemented matching criteria based on **Employee ID, Expense ID, and Date**.

- Reduced errors and improved data accuracy by preventing duplicate records.

```javascript
function getRandomColor() {
  var letters = '0123456789ABCDEF';
  var color = '#';
  for (var i = 0; i < 6; i++) {
    color += letters[Math.floor(Math.random() * 16)];
  }
  return color;
}
```

Deployment

- Prepared the system for deployment from **sandbox to production**.

- Ensured all configurations, customizations, and workflows were correctly migrated.

- Established scheduled backups and data validation checks to maintain integrity.

Transaction Committed
Any records that the flow was ready to create, update, or delete were committed to the database.

SCREEN: Date Range
Date: Start_Date
Label: Start Date
Value at run time: 1 September 2024

Date: End_Date
Label: End Date
Value at run time: 30 September 2024

Selected Navigation Button: NEXT

Transaction Committed
Any records that the flow was ready to create, update, or delete were committed to the database.

Conclusion

Phase 8 successfully implemented **data management and deployment practices** for the Expense Tracker. By handling imports, preventing duplicates, validating data, and preparing the system for production, the project ensures **reliable, secure, and sustainable expense management** for long-term organizational use.