Project Title: Field Service WorkOrder Optimization

Team ID : LTVIP2025TMID31031

Team Size: 4

Start date : 15 June 2025

End date : 20 June 2025

6.PROJECT EXECUTABLE FILES

This phase outlines the actual Salesforce configurations, data, and outcomes used and generated during the execution of our project: "Field Service Work OrderOptimization. "It ensures that all key project elements-objects, data, and output-are traceable and reusable for future reference or assessment. Where practical configurations and working modules of the project are documented for clarity, replication, and validation.

1. Project Files

Project Executable Files

The following project files were executed in the Salesforce Developer Org:

Milestone 1: Developer Account Setup

Milestone 2: Object Creation

Milestone 3: Tab Creation

Milestone 4: Lightning App Setup Milestone 5: Field & Relationship

Milestone 6: Profiles

Milestone 7: Users

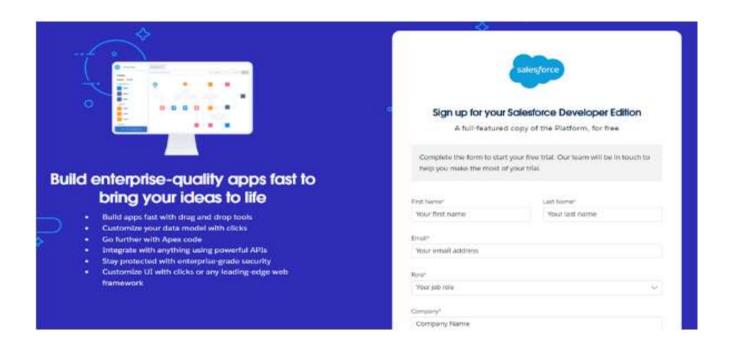
Milestone 8: Apex Trigger

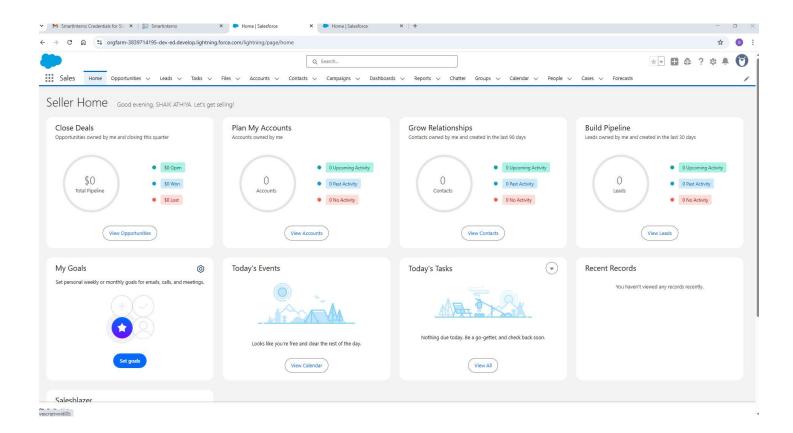
Milestone 9: Reports and Dashboards

List of Milestone Tasks with Supporting Screenshots and Descriptions

Milestone 1: Developer Account Setup

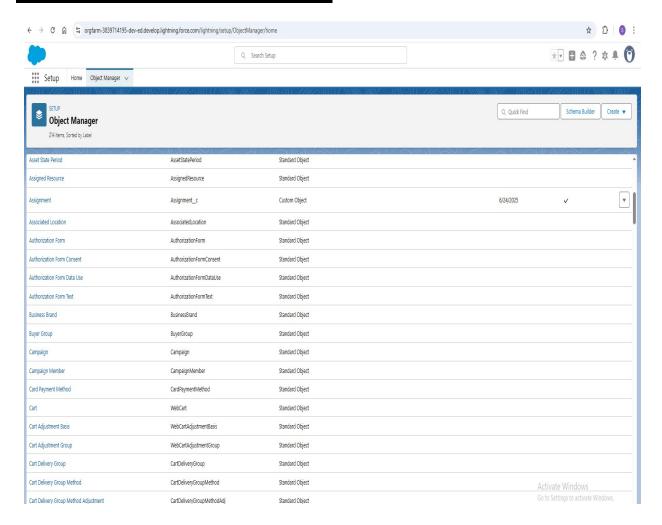
- Created and activated a Salesforce Developer Org.
- Setup the base environment for Field Service WorkOrder optimization development.
- Verified access to Object Manager, Users, Profiles, App Builder.

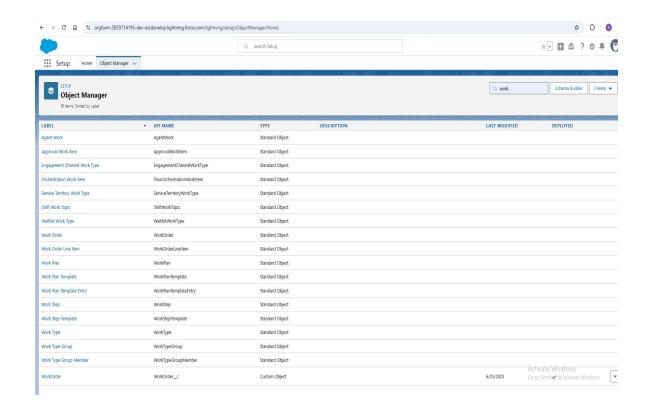




Milestone 2: Object Creation

- Created 3 custom objects:
- o WorkOrder, Technician, Assignment
- Established users, profiles.
- Configured relationships using lookup fields.

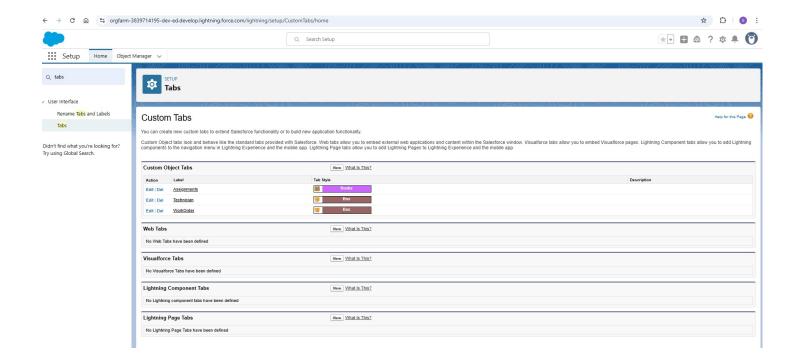






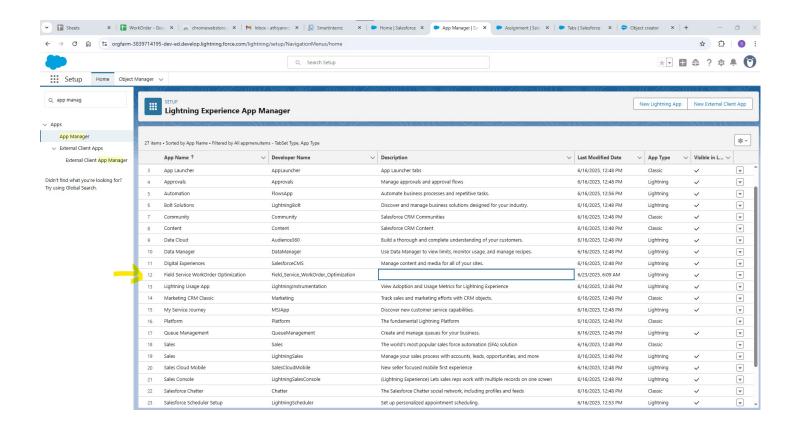
Milestone 3: Tab Creation

- •Created tabs for each custom object.
- Enabled easy navigation and object access in the app.
- Ensured users can create/view records from the UI



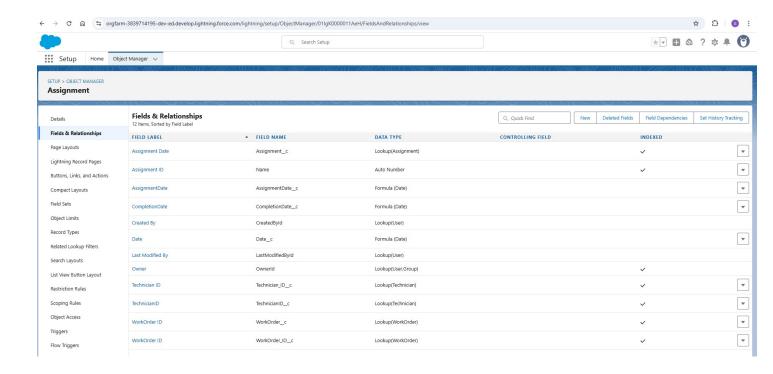
Milestone 4: Lightning App Setup

- Built a custom Lightning App named "Field Service WorkOrder Optimization".
- Added relevant tabs to centralize operations
- Created objects for fields and records

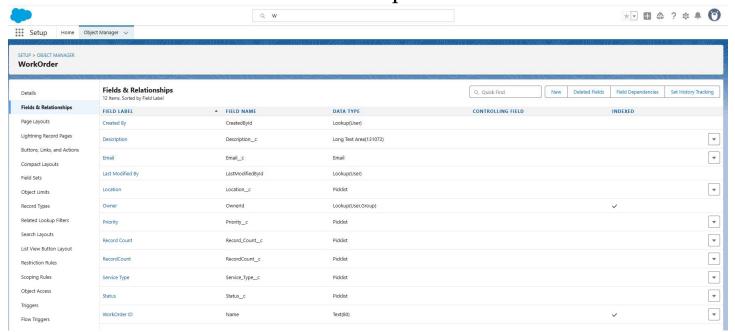


Milestone 5: Fields and Relationships

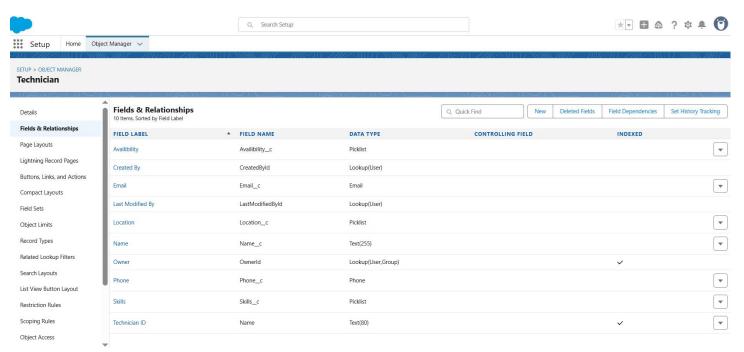
- Added custom and formula fields like:
- Lookup(Technician)
- Formula:returntype:Date (WorkOrder ID r.Date c)
- CreatedDate
 - ➤ Assignment Fields and Relationships



➤ WorkOrder Fields and Relationships

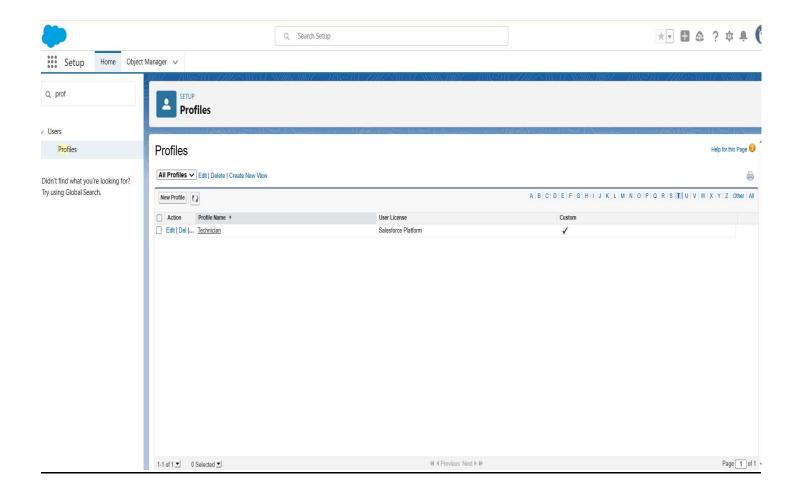


> Technician Fields and Relationships



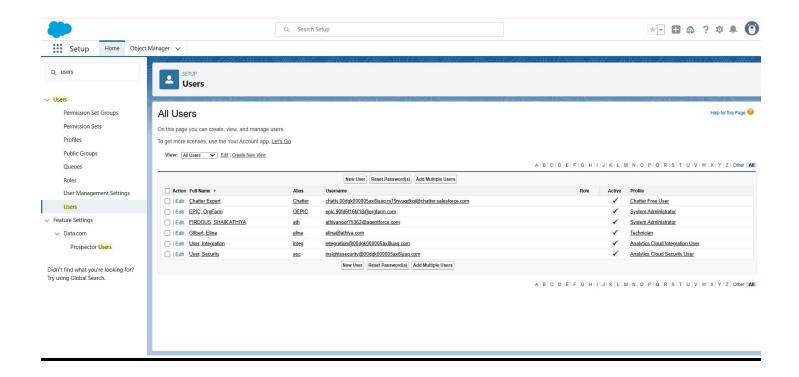
Milestone 6: Profiles

➤ Created a technician profile



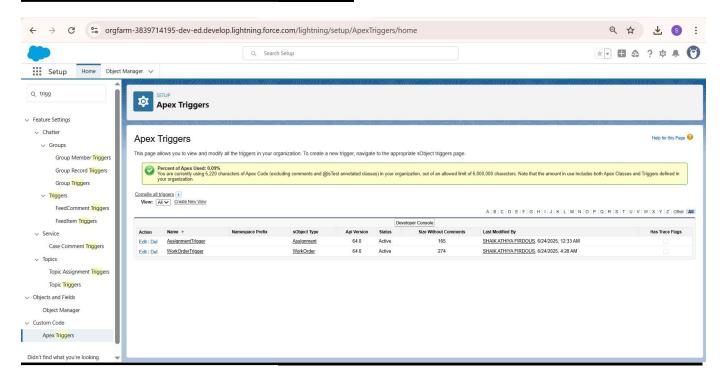
Milestone 7: Users

> Created user named "Elina Gilbert"

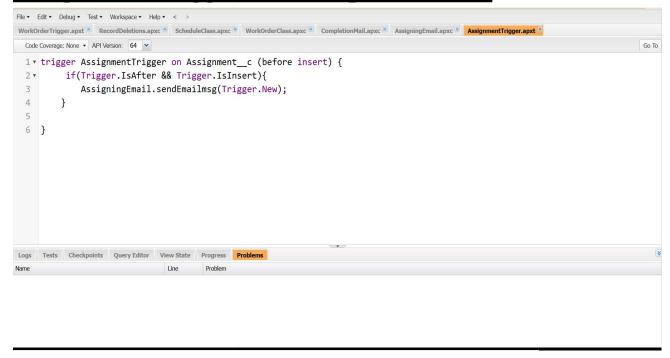


Milestone 8: Apex Trigger

- Developed a trigger to validate
 - Apex Trigger name as "WorkOrderTrigger" and "Assignment Trigger"
 - ➤ Created schedule apex named as "Schedule class"
 - > Created apex triggers using developerconsole

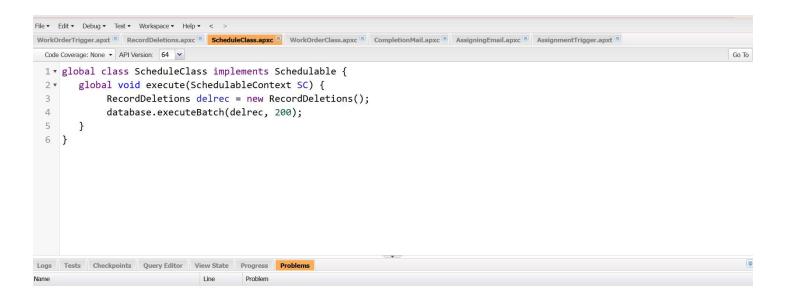


> Assignment Trigger in developer console :



➤ WorkOrder trigger in developerconsole:-

```
File • Edit • Debug • Test • Workspace • Help • < >
 WorkOrderTrigger.apxt RecordDeletions.apxc ScheduleClass.apxc WorkOrderClass.apxc CompletionMail.apxc AssigningEmail.apxc AssignmentTrigger.apxt RecordDeletions.apxc ScheduleClass.apxc ScheduleClass.apxc RecordDeletionScheduleClass.apxc RecordDeletionScheduleClass
      Code Coverage: None • API Version: 64 •
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Go To
       1 v public class RecordDeletions Implements Database.Batchable<Sobject>{
       3 ▼
                                     public Database.QueryLocator start(Database.BatchableContext bc) {
       5 string query = 'SELECT Id, Name, WorkOrder_ID__c, Technician_ID__c, Assignment_Date__c, Completion_Date__c FROM Assignment
        6
       7
                                                           return database.GetQueryLocator(query);
       8
        9
                                     }
      10
      11 🔻
                                     public void execute(Database.BatchableContext bc, List<Assignment_c> query){
      12
      13 ▼
                                                      if(!Query.IsEmpty()){
     14
 Logs Tests Checkpoints Query Editor View State Progress Problems
```



```
File ▼ Edit ▼ Debug ▼ Test ▼ Workspace ▼ Help ▼ < >
WorkOrderTrigger.apxt 🗷 RecordDeletions.apxc 🕱 ScheduleClass.apxc 🛪 WorkOrderClass.apxc 🕱 CompletionMail.apxc 🖹 AssigningEmail.apxc 🖹 AssignmentTrigger.apxt 🗵
 Code Coverage: None 
API Version: 64
                                                                                                                                           Go To
  1 ▼ public class WorkOrderClass {
          public static void workOrder(List<WorkOrder C> newListWorkOrder){
               Map<Integer, List<String>> maptotech = new map<Integer,List<String>>();
  4
               integer num = 0;
  5
               List<WorkOrder__c> properWo = new List<WorkOrder__c>();
               List<Assignment__c> lstAssignment = new List<Assignment__c>();
  6
               List<Technician__c> techniciantoAssignment = new List<Technician__c>();
  7
  8 *
               for(WorkOrder c iter : newListWorkOrder){
  9
                   List<String> lststring = new List<string>();
 10 ▼
                   If(iter.Service_Type__c != null && iter.Location__c != null ){
                       num = num+1;
 11
 12
                       properWo.add(iter);
 13
                       lststring.add(iter.Service_Type__c);
                        letetning add/item location ()
 14
    Tests Checkpoints Query Editor View State Progress Problems
                               Line
```



```
File ▼ Edit ▼ Debug ▼ Test ▼ Workspace ▼ Help ▼ < >
WorkOrderTrigger.apxt 🗷 RecordDeletions.apxc 🛪 ScheduleClass.apxc 🛪 WorkOrderClass.apxc 🛪 CompletionMail.apxc 🛪 AssigningEmail.apxc 🛪 AssignmentTrigger.apxt 🗷
 Code Coverage: None 
API Version: 64
                                                                                                                                      Go To
 1 ▼ public class AssigningEmail {
 2 🔻
          public static void sendEmailmsg(List<Assignment_c> assRec){
 3
              List<messaging.SingleEmailMessage> myVar = new List<messaging.SingleEmailMessage>();
 4
              Map<id,Technician_c> tecnicians = new Map<id,Technician_c>([SELECT Id, Phone_c, Location_c, Skills_c, Name_
 5 🔻
              try{
                  for(Assignment__c con : assRec){
 6 ▼
 7 🔻
                       if(con.Technician_ID__c != null){
                           messaging.SingleEmailMessage mail = new messaging.SingleEmailMessage();
 8
 9
                           List<String> sendTo = new List<String>();
 10
                           sendTo.add(tecnicians.Get(con.Technician_ID__c).Email__c);
 11
                           mail.setToAddresses(sendTo);
 12
                           string subject = 'WorkOrder Assignment';
                           mail.setSubject(subject);
 13
 14
                           string body = 'The following WorkOrder has been assigned to you';
 15
                           mail.setHTMLbody(body);
 16
                           myVar.add(mail);
 17
                  }
 18
 19
                  Messaging.sendEmail(myvar);
              }
 20
 21 ▼
              catch(exception e){
```

Milestone 9: Reports and Dashboards

• Reports

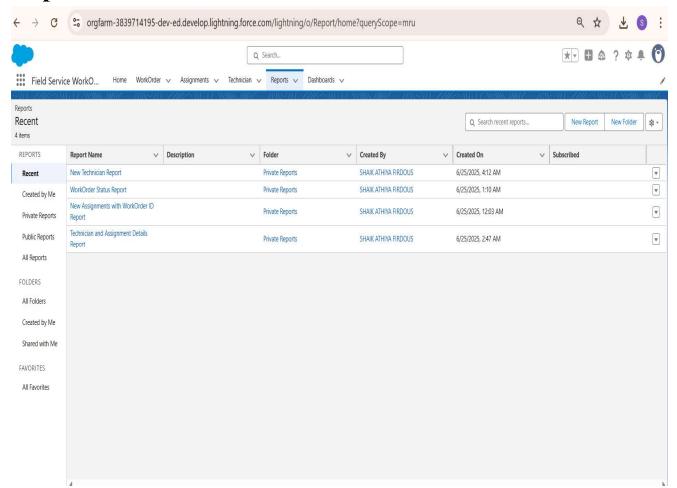
- o Created a report with report type: "WorkOrders Status Reports".
- Created a report with report type: "Technician and Assignment Details Reports".

Dashboards

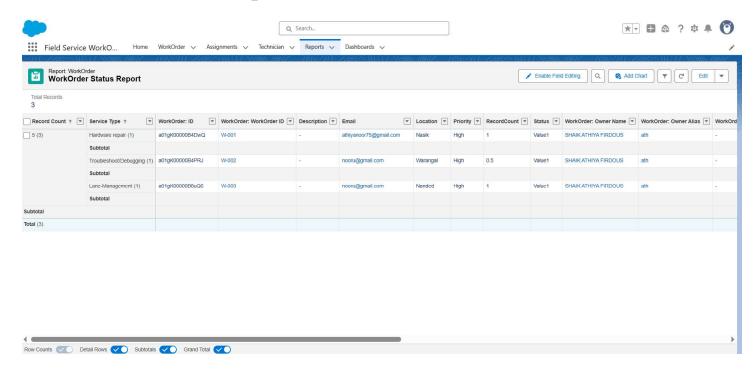
- o Create dashboard showing the technician report in a table chart
- Create Dashboard which shows the details of completed workorder status in a vertical bar graph.

OUTPUT SCREENSHOTS:-

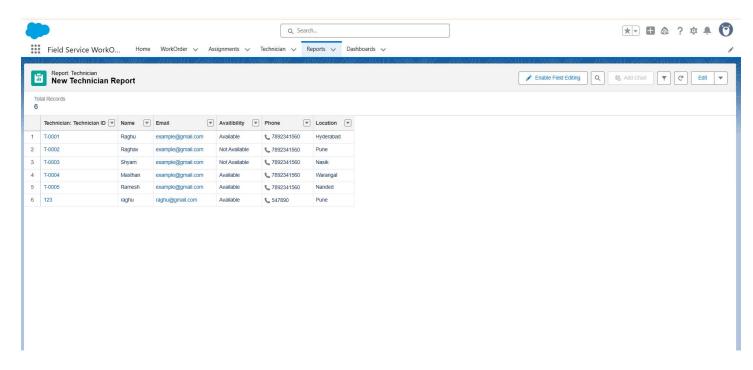
Reports



> WorkOrders Status Reports

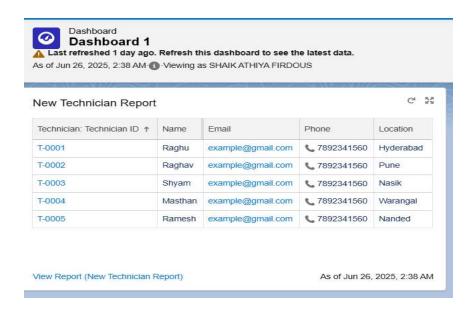


> Technician and Assignment Details Reports".

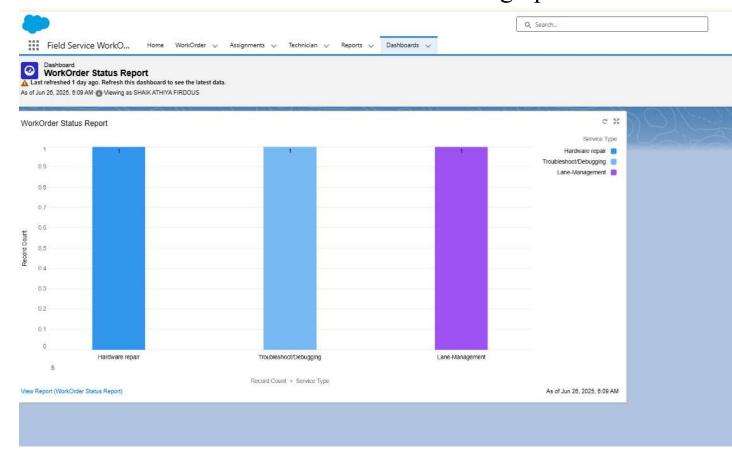


Dashboards

 Create dashboard showing the technician report in a table chart



 Create Dashboard which shows the details of completed workorder status in a vertical bar graph.



6.1 Final Review

- Conducted full system testing.
- Checked all object links, Profiles, Users, triggers, reports and dashboards.
- Confirmed the Field Service WorkOrder Optimization is fully functional and stable.

6.2 Dataset

Object	Sample Fields Used
WorkOrder	WorkOrderID: W-001, Email:
	athiyanoor75gmail.com,
	Servicetype: Hardware repair,
	Location: Nasik,
	Priority: High
Assignment	Technician ID:123,
	Name: Raghu,
	Phone:57894,
	Assignment:available
Technician	Technician ID:001, Name: Raghu,
	Phone:789264571,
	Skills: machine Installation