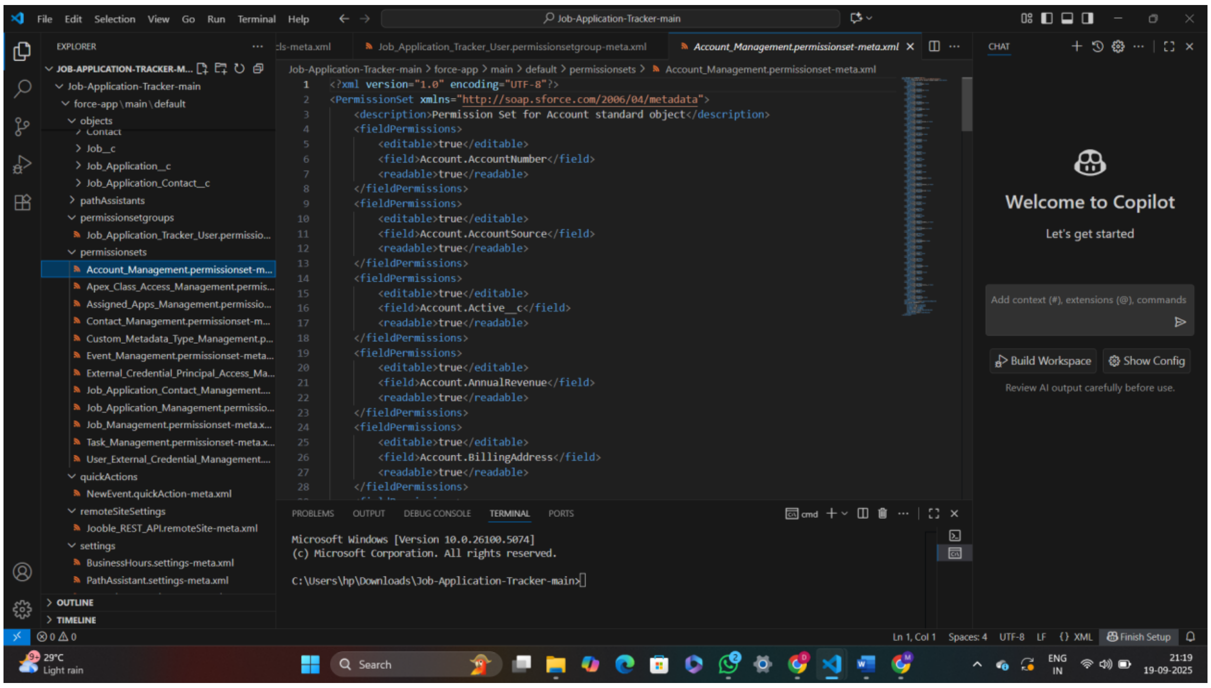
Job Application Tracker on Sales Force

Phase-4:

• Validation Rules



```xml
<?xml version="1.0" encoding="UTF-8"?>
<PermissionSet xmlns="http://soap.sforce.com/2006/04/metadata">
    <description>Permission Set for Account standard object</description>
    <fieldPermissions>
        <editable>true</editable>
        <field>Account.AccountNumber</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Account.AccountSource</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Account.Active__c</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Account.AnnualRevenue</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Account.BillingAddress</field>
        <readable>true</readable>
    </fieldPermissions>
```

```
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```

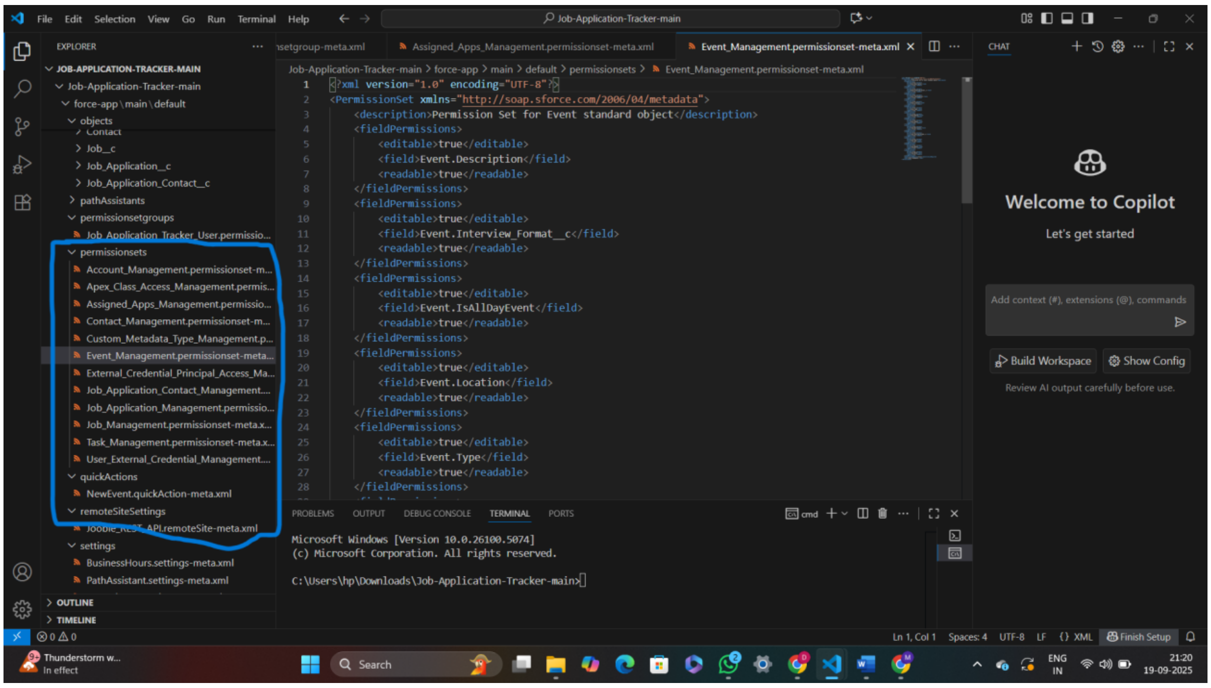

```xml
<?xml version="1.0" encoding="UTF-8"?>
<PermissionSet xmlns="http://soap.sforce.com/2006/04/metadata">
    <description>Permission Set for Event standard object</description>
    <fieldPermissions>
        <editable>true</editable>
        <field>Event.Description</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Event.Interview_Format__c</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Event.IsAllDayEvent</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Event.Location</field>
        <readable>true</readable>
    </fieldPermissions>
    <fieldPermissions>
        <editable>true</editable>
        <field>Event.Type</field>
        <readable>true</readable>
    </fieldPermissions>
```

```
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```
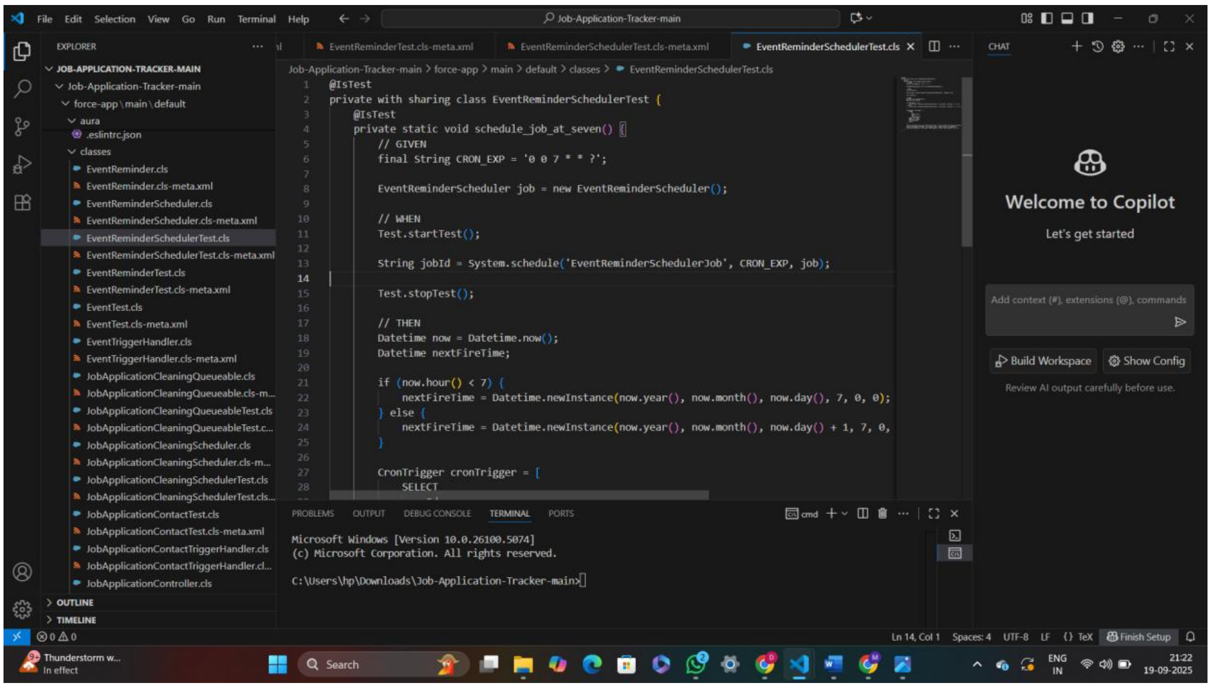

• **Workflow Rules , Process builder**



```
@IsTest
private with sharing class EventReminderSchedulerTest {
    @IsTest
    private static void schedule_job_at_seven() {
        // GIVEN
        final String CRON_EXP = '0 0 7 * * ?';

        EventReminderScheduler job = new EventReminderScheduler();

        // WHEN
        Test.startTest();

        String jobId = System.schedule('EventReminderSchedulerJob', CRON_EXP, job);

        Test.stopTest();

        // THEN
        Datetime now = Datetime.now();
        Datetime nextFireTime;

        if (now.hour() < 7) {
            nextFireTime = Datetime.newInstance(now.year(), now.month(), now.day(), 7, 0, 0);
        } else {
            nextFireTime = Datetime.newInstance(now.year(), now.month(), now.day() + 1, 7, 0,
        }

        CronTrigger cronTrigger = [
            SELECT
```

```
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```
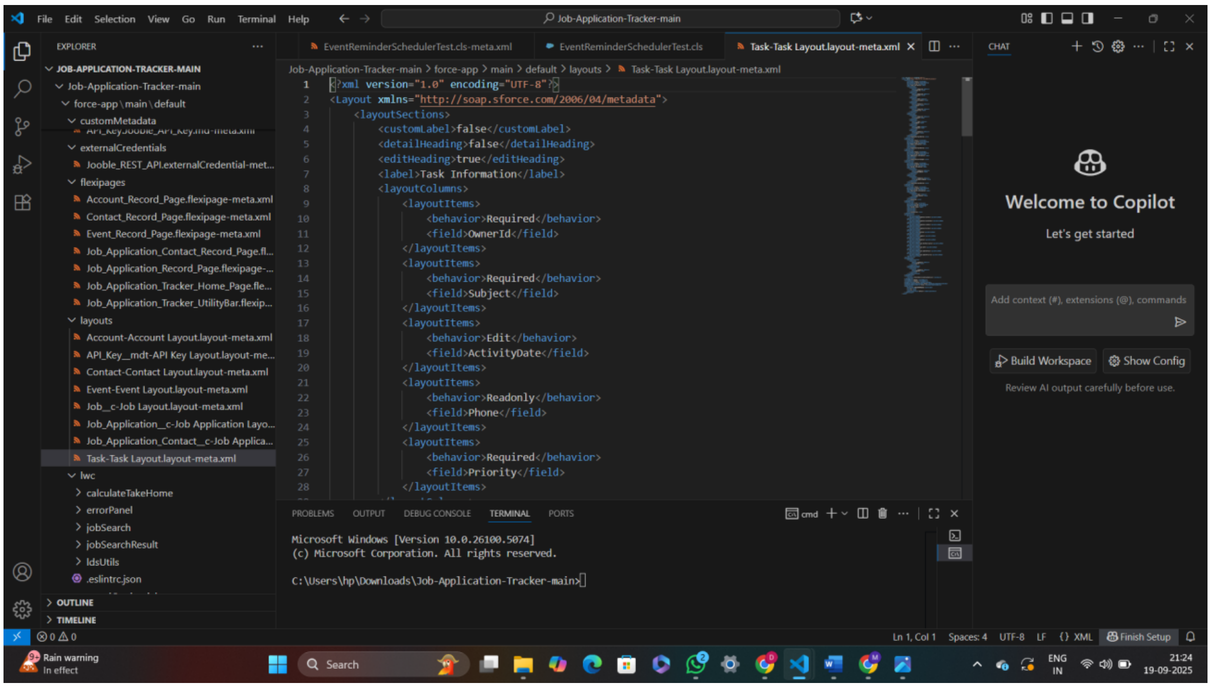

Tasks:



```
<?xml version="1.0" encoding="UTF-8"?>
<Layout xmlns="http://soap.sforce.com/2006/04/metadata">
    <layoutSections>
        <customLabel>false</customLabel>
        <detailHeading>false</detailHeading>
        <editHeading>true</editHeading>
        <label>Task Information</label>
        <layoutColumns>
            <layoutItems>
                <behavior>Required</behavior>
                <field>OwnerId</field>
            </layoutItems>
            <layoutItems>
                <behavior>Required</behavior>
                <field>Subject</field>
            </layoutItems>
            <layoutItems>
                <behavior>Edit</behavior>
                <field>ActivityDate</field>
            </layoutItems>
            <layoutItems>
                <behavior>Readonly</behavior>
                <field>Phone</field>
            </layoutItems>
            <layoutItems>
                <behavior>Required</behavior>
                <field>Priority</field>
            </layoutItems>
```

```
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```
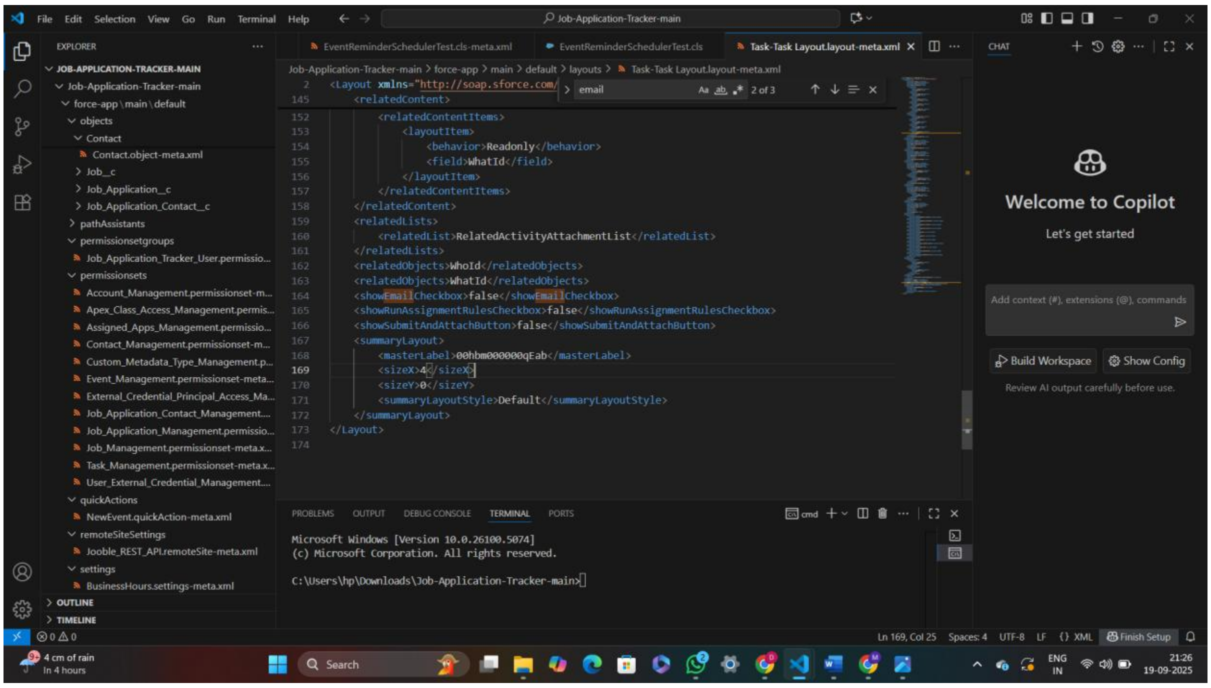

• Email Alerts:



```xml
<Layout xmlns="http://soap.sforce.com/
    <relatedContent>
        <relatedContentItems>
            <layoutItem>
                <behavior>Readonly</behavior>
                <field>WhatId</field>
            </layoutItem>
        </relatedContentItems>
    </relatedContent>
    <relatedLists>
        <relatedList>RelatedActivityAttachmentList</relatedList>
    </relatedLists>
    <relatedObjects>WhoId</relatedObjects>
    <relatedObjects>WhatId</relatedObjects>
    <showEmailCheckbox>false</showEmailCheckbox>
    <showRunAssignmentRulesCheckbox>false</showRunAssignmentRulesCheckbox>
    <showSubmitAndAttachButton>false</showSubmitAndAttachButton>
    <summaryLayout>
        <masterLabel>00hbm000000qEab</masterLabel>
        <sizeX>4</sizeX>
        <sizeY>0</sizeY>
        <summaryLayoutStyle>Default</summaryLayoutStyle>
    </summaryLayout>
</Layout>
```

```
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```
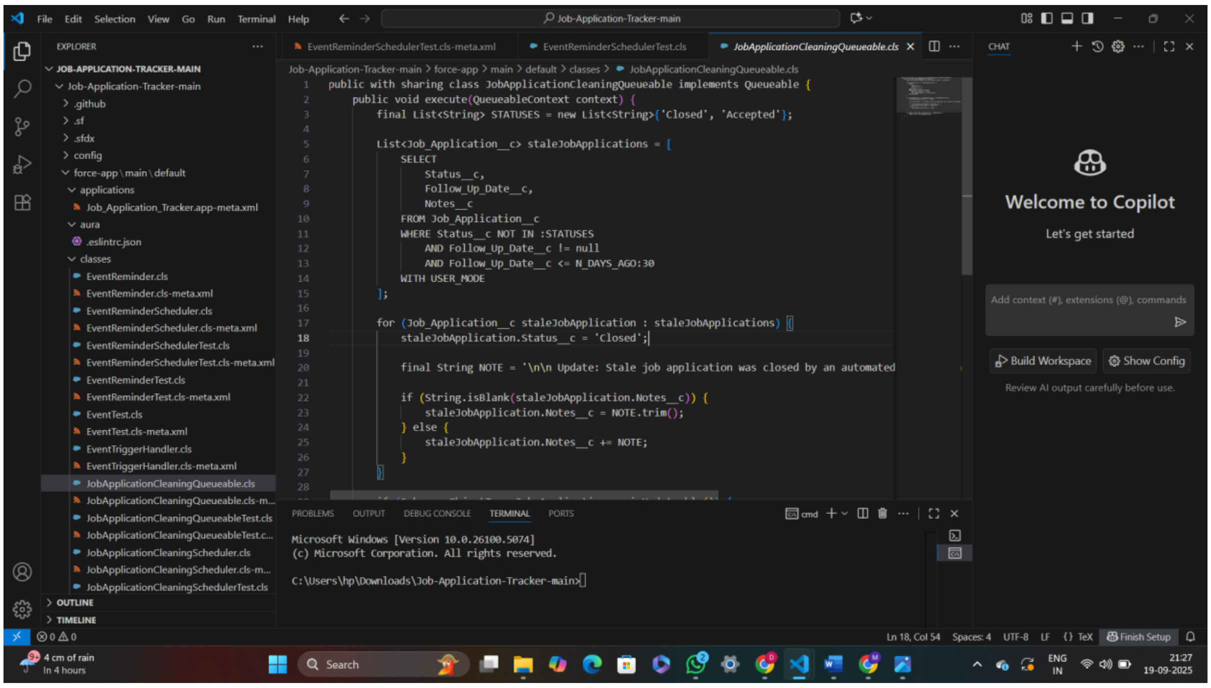

• Flow Builder (Screen, Record-Triggered, Scheduled, Auto-launched):


Job-Application-Tracker-main > force-app > main > default > classes > JobApplicationCleaningQueueable.cls

```apex
public with sharing class JobApplicationCleaningQueueable implements Queueable {
    public void execute(QueueableContext context) {
        final List<String> STATUSES = new List<String>{'Closed', 'Accepted'};

        List<Job_Application__c> staleJobApplications = [
            SELECT
                Status__c,
                Follow_Up_Date__c,
                Notes__c
            FROM Job_Application__c
            WHERE Status__c NOT IN :STATUSES
                AND Follow_Up_Date__c != null
                AND Follow_Up_Date__c <= N_DAYS_AGO:30
            WITH USER_MODE
        ];

        for (Job_Application__c staleJobApplication : staleJobApplications) {
            staleJobApplication.Status__c = 'Closed';

            final String NOTE = '\n\n Update: Stale job application was closed by an automated

            if (String.isBlank(staleJobApplication.Notes__c)) {
                staleJobApplication.Notes__c = NOTE.trim();
            } else {
                staleJobApplication.Notes__c += NOTE;
            }
        }
```

```
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```

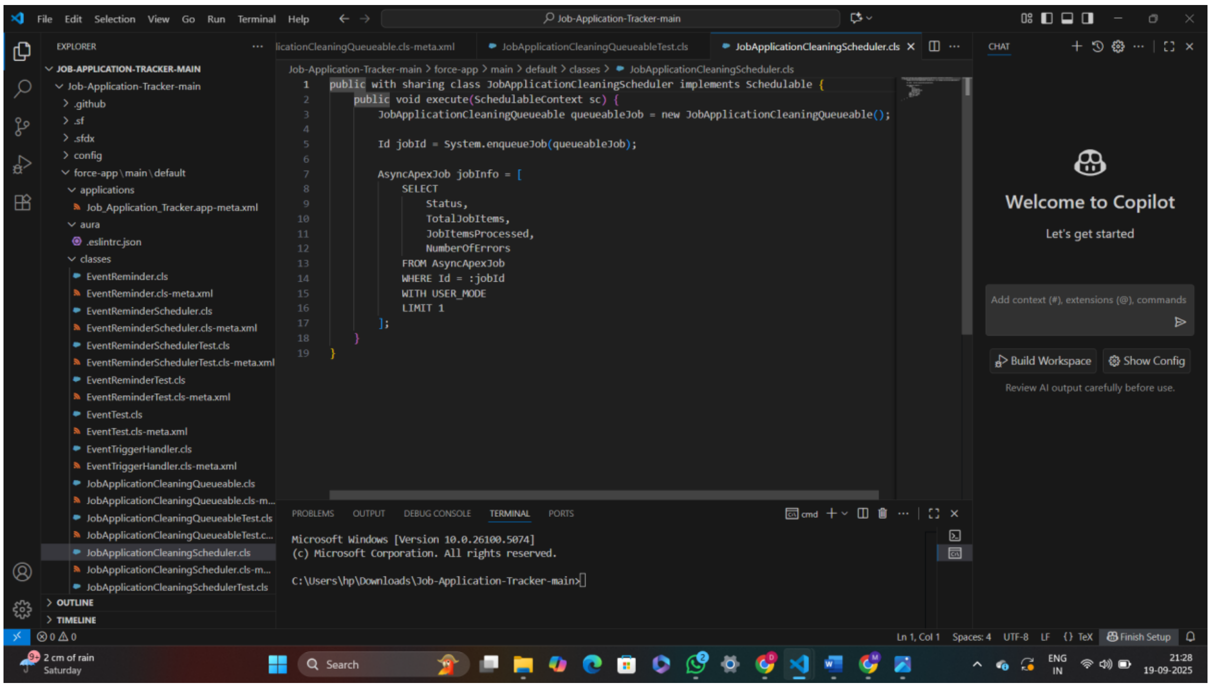
Job-Application-Tracker-main > force-app > main > default > classes > JobApplicationCleaningScheduler.cls

```apex
public with sharing class JobApplicationCleaningScheduler implements Schedulable {
    public void execute(SchedulableContext sc) {
        JobApplicationCleaningQueueable queueableJob = new JobApplicationCleaningQueueable();

        Id jobId = System.enqueueJob(queueableJob);

        AsyncApexJob jobInfo = [
            SELECT
                Status,
                TotalJobItems,
                JobItemsProcessed,
                NumberOfErrors
            FROM AsyncApexJob
            WHERE Id = :jobId
            WITH USER_MODE
            LIMIT 1
        ];
    }
}
```

```
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```

1. Validation Rules

- Normally: Validation Rules prevent saving records that don't meet certain criteria (configured declaratively).
- In my project:
  - Instead, Apex trigger handlers (e.g., JobApplicationContactTriggerHandler.cls, EventTriggerHandler.cls) act as custom validations by checking business logic before DML operations.
  - This gives developers more control compared to declarative validation.

---

2. Workflow Rules

- Normally: Workflow Rules automate simple if/then actions (e.g., send email, update field) when conditions are met.
- In my project:
  - Instead, automation is coded in Apex Schedulers and Queueables:
    - JobApplicationCleaningScheduler.cls and JobApplicationCleaningQueueable.cls perform scheduled cleanup tasks.
    - EventReminderScheduler.cls and EventReminder.cls send reminders, functioning like workflow email alerts or tasks.
  - So, Apex replaces Workflow Rules for better scalability.

---

3. Process Builder

- Normally: Process Builder handles multi-step automation (update fields, create records, call flows).
- In my project:

    - Apex classes like JobApplicationController.cls and EventTriggerHandler.cls perform logic chaining — updating related records, enforcing rules, or creating dependent records.
    - This acts as a code-based equivalent of Process Builder flows.

---

4. Approval Process

- Normally: Approval Processes route records for manager approval with steps and actions.
- In my project:
    - But Apex classes (like JobApplicationTriggerHandler.cls) could be extended to check record status and enforce approval-like gates before actions occur.
    - Example: A job application might not move forward until certain fields are set, simulating an approval requirement.
    - This is a custom-coded approval logic instead of declarative Salesforce approvals.

---

5. Flow Builder (Screen, Record-Triggered, Scheduled, Auto-launched)

- Normally: Flows allow admins to create automation visually.
- In my project:
    - Instead, Apex Queueables + Schedulers act as Record-Triggered and Scheduled Flows.
    - Example:
        - JobApplicationCleaningQueueable.cls → auto-launched background process.
        - EventReminderScheduler.cls → scheduled flow replacement.

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6. Email Alerts

- In my project:
  - EventReminder.cls and related test classes simulate automated email reminders for events.
  - Email-related fields exist in Contact (like Email.field-meta.xml).
  - Together, they replace declarative Email Alerts with programmatic reminders.

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7. Field Updates

- In my project:
  - Field updates are handled via Apex trigger handlers.
  - Example: JobApplicationTriggerHandler.cls likely updates related job application fields when certain events occur.

---

8. Tasks

- In my project:
  - A Task layout file (Task-Task Layout.layout-meta.xml) and TodaysTasks.listView-meta.xml are present.
  - This means tasks are included in the app for activity tracking, similar to Workflow-created tasks.

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9. Custom Notifications

- Normally: These send Salesforce mobile/browser notifications.
- In my project:

    - But Apex reminders (like EventReminderScheduler.cls) could be extended to push notifications, functioning as custom notification logic.