Project Title: *NeuroWell – Intelligent Mental Wellness & Early Detection CRM*

Description : NeuroWell CRM is a Salesforce-based mental wellness management system designed to detect early signs of stress, anxiety, and emotional distress among patients. It automates wellness tracking, counselor assignments, and follow-up scheduling using declarative tools like Flows and Process Builder.

The system captures patient assessments, calculates stress levels, and categorizes them into low, moderate, or high risk using Apex logic.

High-risk cases automatically trigger tasks and notifications for counselors, ensuring immediate attention.

Dashboards and reports provide real-time insights into patient wellness trends and counselor performance.

The CRM is secured through profiles, roles, and field-level security.

It supports efficient data management, backup, and deployment using Salesforce Data Loader and Change Sets.

Integration features allow for potential connection with external wellness APIs or mobile apps.

Overall, NeuroWell enhances proactive mental health care by combining automation, analytics, and accessibility in a single Salesforce platform**.**

All Phases :

Phase 1: Problem Understanding & Industry Analysis

1. Requirement Gathering

- Schools, colleges, and corporates are struggling to manage mental health concerns due to: Lack of early detection.
- Manual tracking of sessions and case notes.
- No centralized platform for progress monitoring.
- Requirements: Wellness survey/check-in system.
- Counselor–patient assignment.
- Session booking + reminders.
- Automated high-risk alerts.
- Dashboards for progress and trend analysis.

2. Stakeholder Analysis

1. Patients (Students/Employees): Fill wellness check-ins, book sessions.
2. Counselors/Psychologists: Manage therapy sessions, record case notes, assign activities.
3. Admins/HR/School Authorities: Oversee wellness reports and organizational health.

4. Family/Guardians (optional): Receive updates on progress where required.

3. Business Process Mapping

- Wellness Check-In: Patient fills stress/mood survey.
- Risk Analysis: System calculates wellness score → if high-risk, alert counselor.
- Counselor Assignment: Auto-match based on specialization (career
- stress, trauma, workplace burnout).
- Session Scheduling: Patient books → reminders sent.
- Progress Monitoring: Counselor logs notes, activities, milestones.
- Feedback & Follow-Up: Automated reminders + post-session surveys.
- Reporting: Dashboards for organization-wide mental wellness trends.

4. Industry-specific Use Case Analysis

• Education: Schools & universities monitor student stress and academic anxiety.

• Corporate: Companies track workplace burnout and support employee wellness.

• Healthcare/NGOs: Community organizations manage therapy programs for mental health awareness.

5. AppExchange Exploration

• Survey Tools (FormAssembly, GetFeedback): Inspiration for wellness check-ins.

• Health Cloud: For secure patient–provider relationships.

• Calendar/Appointment Apps: For scheduling models.

• NeuroWell takes these inspirations but creates a dedicated mental wellness solution customized for early detection + progress monitoring.

Phase 2 : Org SetUp and configuration

1.Salesforce Edition :

Salesforce offers multiple editions such as Essentials, Professional, Enterprise, Unlimited, and Developer. For this project, we are using the Developer Edition because it is free, provides all major features for learning and development, and supports configuration and customization.
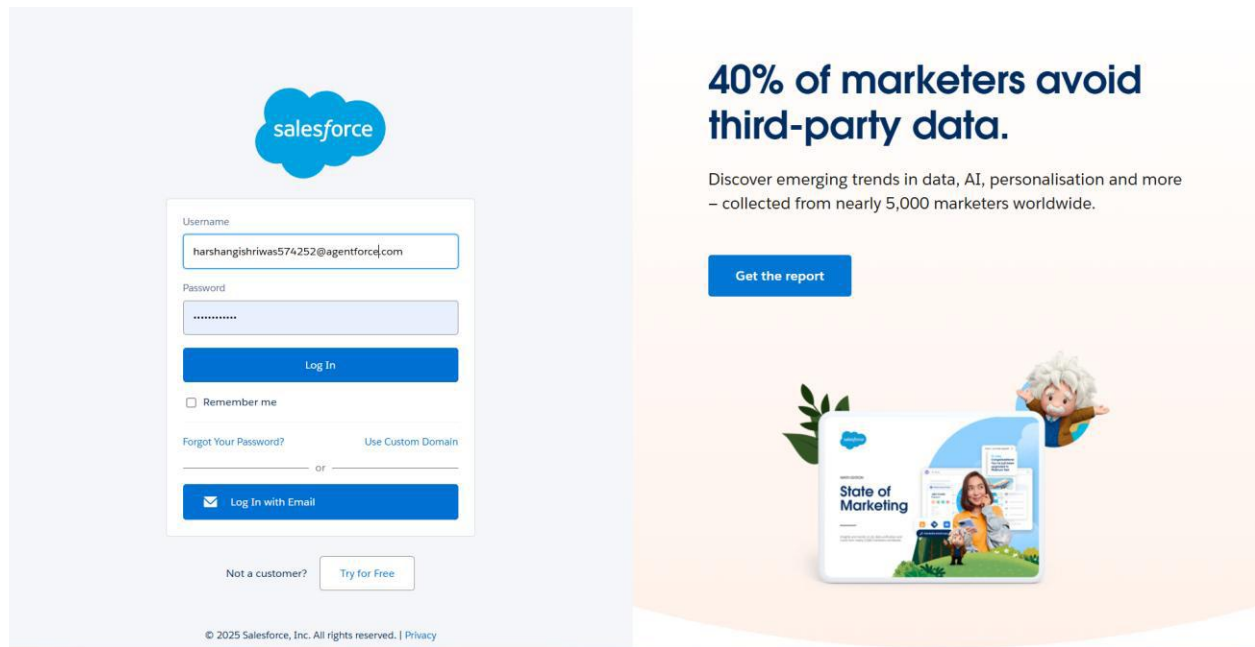
2. Company Profile Set Up :

We set up the Company Profile to define organization details like Company Name, Default Locale, Currency, Language, and Time Zone.

- Company Name: *NeuroWell Pvt. Ltd.*

- Default Locale: English (United States)

- Currency: INR

- Time Zone: (GMT+05:30) India Standard Time
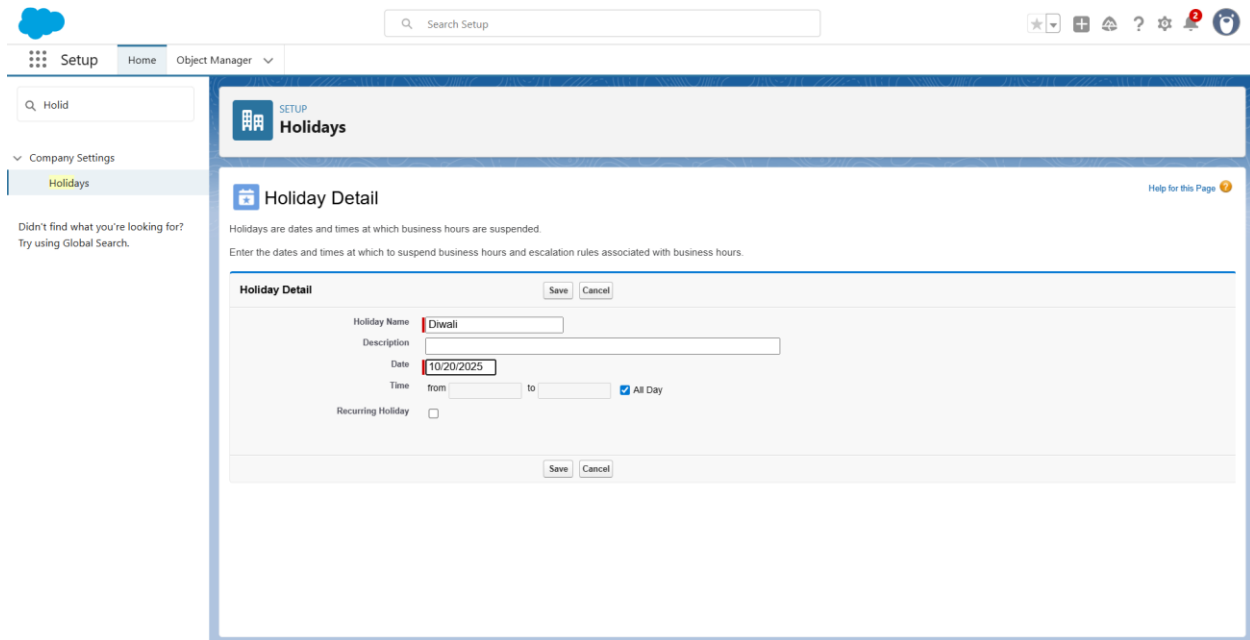
3. Business Hours And Holidays :

Business Hours define when the support team is available, and Holidays specify days when business is closed.

• Business Hours: 9:00 AM – 6:00 PM (Monday–Saturday)

• Holidays: Diwali

4. Fiscal Year Settings :
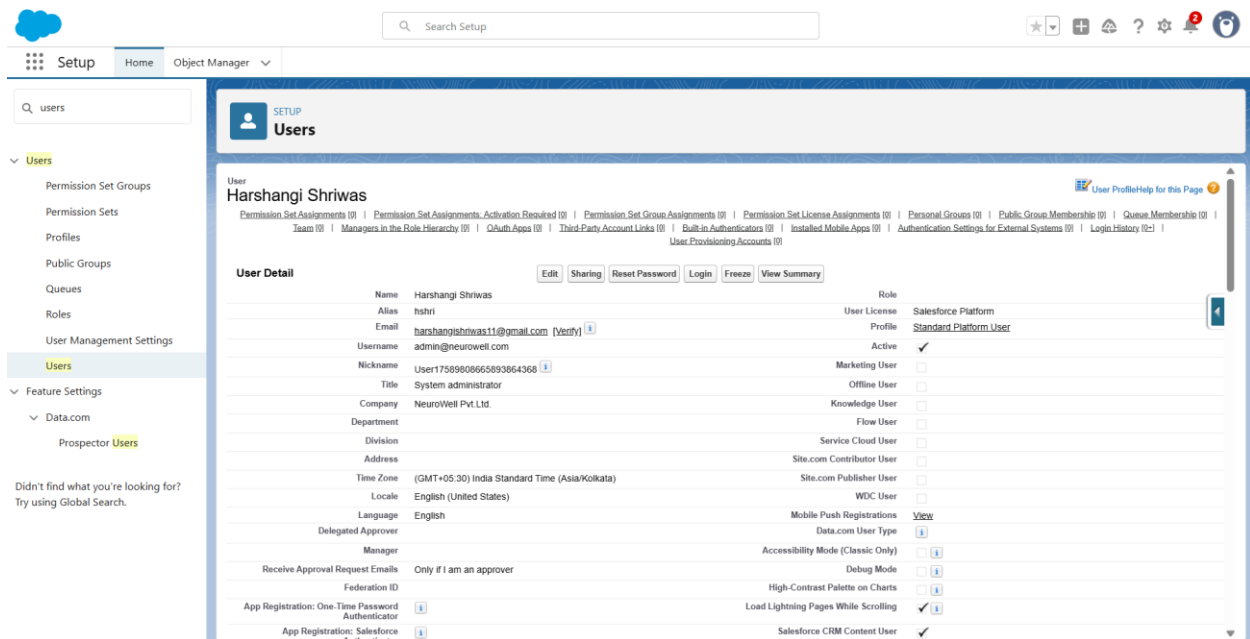
Fiscal Year settings are important for financial tracking and reporting. For our project, we use the Standard Fiscal Year:

5. User SetUp and Licences :

We created multiple users to simulate a real organization, assigning them different licenses.

6. Profiles :

Profiles control what users can do in Salesforce (permissions, objects, fields).

7. Roles :

Roles define hierarchy and record visibility. We set up:

- **CEO → HR → Counselor → Patient**
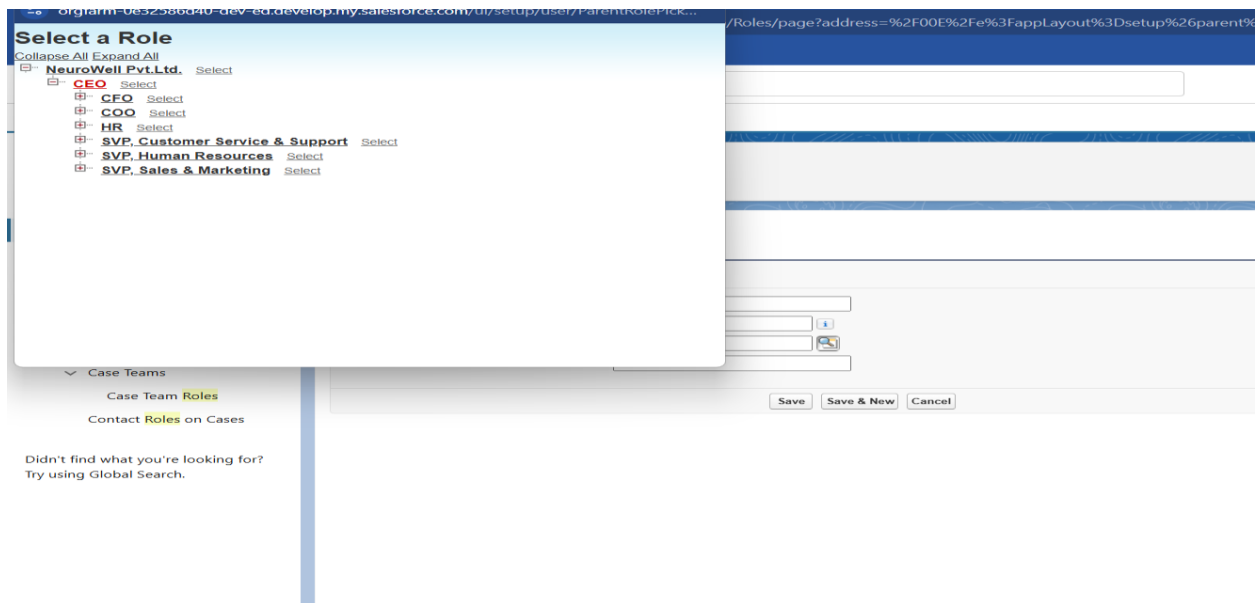
Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To insert a new role, click **Add Role**.

Your Organization's Role Hierarchy

Collapse All Expand All

- NeuroWell Pvt.Ltd.
  - Add Role
  - CEO   Edit | Del | Assign
    - Add Role
    - CFO   Edit | Del | Assign
      - Add Role
    - COO   Edit | Del | Assign
      - Add Role
    - HR   Edit | Del | Assign
      - Add Role
    - SVP, Customer Service & Support   Edit | Del | Assign
      - Add Role
    - SVP, Human Resources   Edit | Del | Assign
      - Add Role
    - SVP, Sales & Marketing   Edit | Del | Assign
      - Add Role
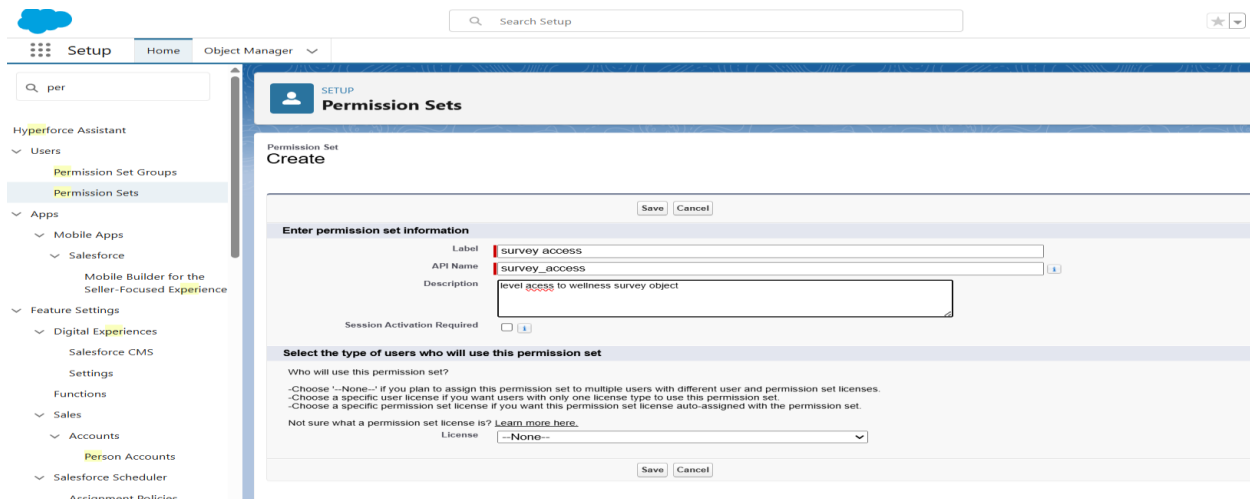
8. Permission sets:

Permission Sets give additional access without changing the user's profile.

• Example: "Survey Access" permission set → Allows a Counselor to access dashboards even if not part of their profile

9. OWD:

OWD settings ensure data privacy for sensitive mental wellness data.

•   Client Records: Private

•   Counseling Sessions: Private

10. Sharing Rules :

Sharing rules extend access where required.

•   Example: Counselors in the same department can view each other's patient session records.

11. Login Access Policies :

Enabling Login Access allows Admins to log in as users for troubleshooting issues. This is useful for testing counselor/client accounts.
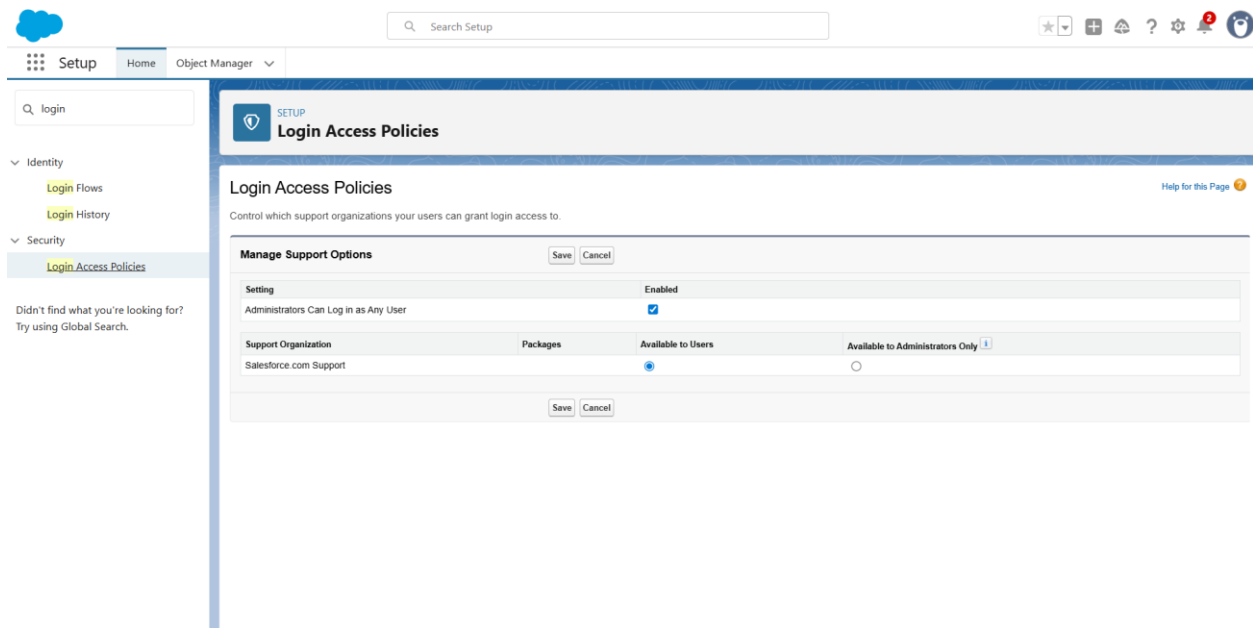
12.Dev Org SetUp :

We created a free Salesforce Developer Edition Org for NeuroWell:

• Org Name: *NeuroWell CRM*

• Purpose: Development, configuration, and testing of project modules
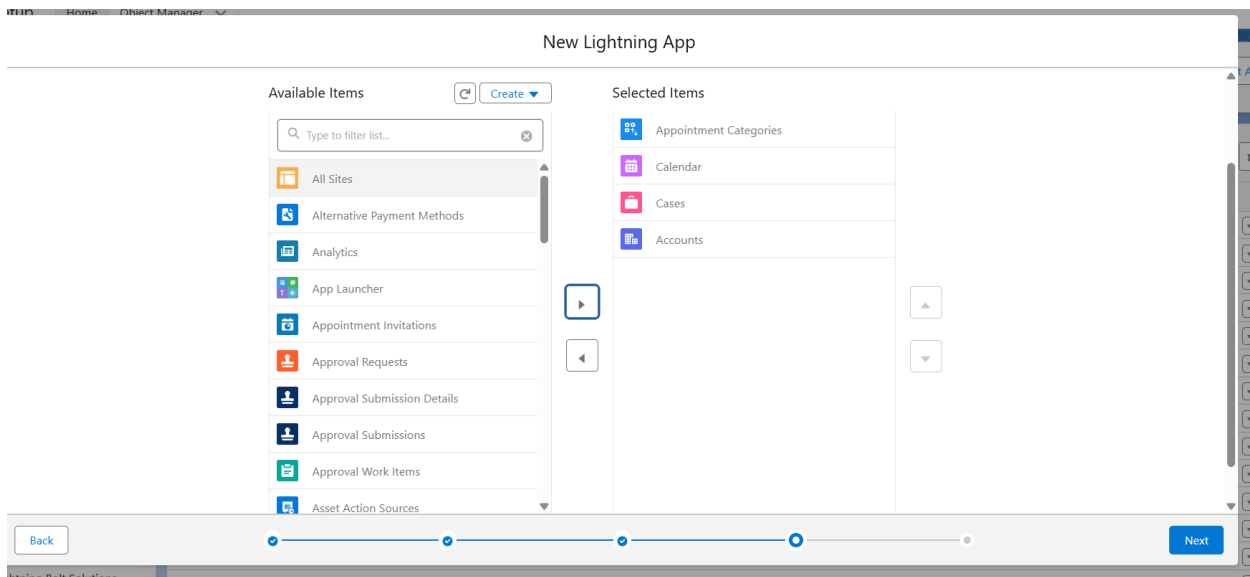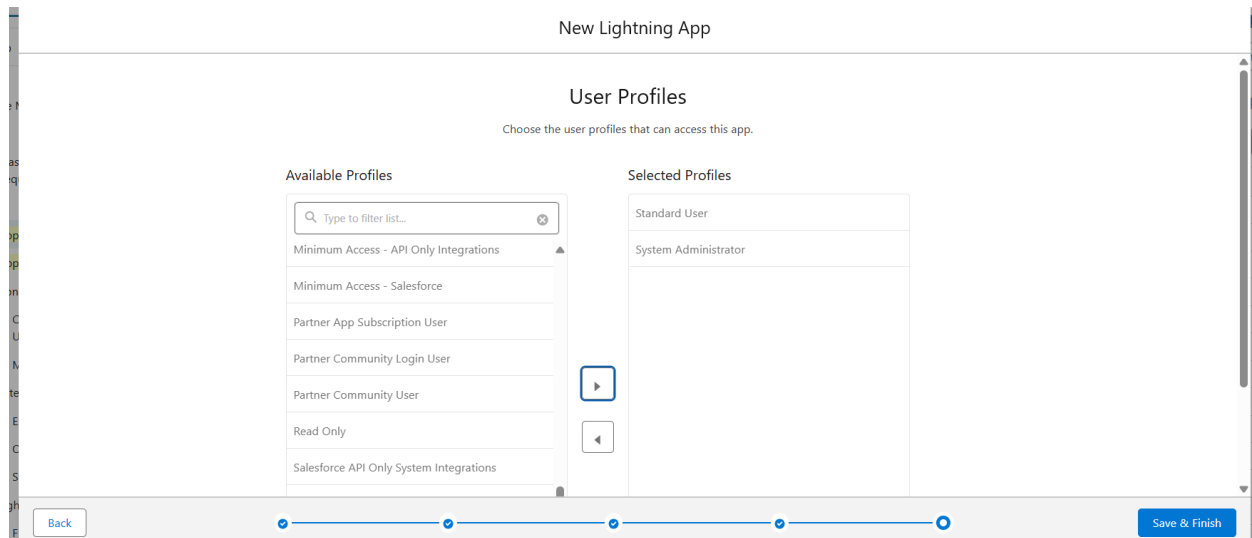
13. Sandbox usage :

Since Developer Edition does not support Sandboxes, we are using a single Developer Org for configuration and VS Code with GitHub for version control instead of Sandboxes.

14. Deployment basics :

We simulated deployment by pushing our project metadata and documentation to GitHub. This repository acts as our deployment medium for review and version control.

Phase 3: Data Modeling & Relationships

Objective

In this phase, we design the data model for NeuroWell CRM to capture all important entities such as Patients, Counselors, Sessions, and Mental Wellness Records. Salesforce objects, fields, and relationships ensure the system can store and connect information properly.

3.1 Custom Objects

We created the following custom objects to represent the NeuroWell domain:

1. Patient - Stores patient details. Key fields: Name, Age, Gender, Contact Info, Enrollment Date.
2. Counselor - Stores counselor details. Key fields: Name, Specialization, Experience, Contact Info.
3. Wellness Record - Tracks patient's mental health check-ins. Key fields: Stress Score, Mood Level, Risk Level, Date.
4. Counselor Session - Represents counseling appointments. Key fields: Session Date, Notes,

Follow-up Date, Status.

5. Progress Tracker - Records long-term improvement in patient's wellness. Key fields: Week Number, Improvement Score, Comments.

6. Mental Health Program - Represents available wellness programs. Key fields: Program Name, Type, Duration.

7. Program Enrollment - Junction object to link Patients and Programs.
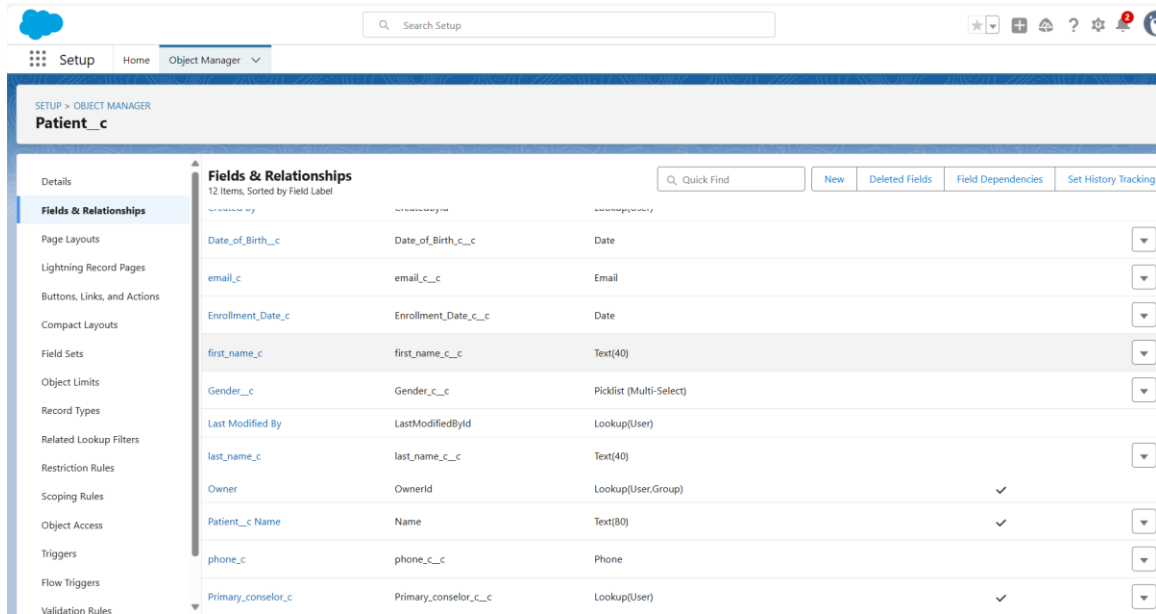
3.2 Relationships

We used lookup and master-detail relationships to link objects:

- Patient ↔ Wellness Record (Master-Detail): One Patient can have multiple Wellness Records.
- Patient ↔ Counselor Session (Lookup): Each Session is linked to a Patient.
- Counselor ↔ Counselor Session (Lookup): Each Session is linked to a Counselor.
- Patient ↔ Progress Tracker (Master-Detail): One Patient can have multiple Progress Trackers.
- Patient ↔ Program Enrollment ↔ Mental Health Program (Junction Object): Many-to-many relationship between Patients and Programs.

Fields & Relationships
6 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Assessment_Date__c	Assessment_Date_c__c	Date			▾
Created By	CreatedById	Lookup(User)			
Last Modified By	LastModifiedById	Lookup(User)			
Patient__c	Patient_c__c	Master-Detail(Patient__c)		✓	▾
Stress_Score__c	Stress_Score_c__c	Number(15, 3)			▾
Wellness_Record__c Name	Name	Auto Number		✓	▾

3.3 Custom Fields

Some important fields created on objects:

- Patient → Enrollment Date, Mental Health ID (Auto Number).
- Wellness Record → Stress Score (Number), Mood (Picklist), Risk Level (Picklist).
- Counselor Session → Session Notes (Long Text), Status (Picklist).
- Progress Tracker → Improvement Score (Number), Week Number (Auto Number).
- Mental Health Program → Program Type (Picklist), Duration (Number).
- Program Enrollment → Enrollment Date (Date), Status (Picklist).

Fields & Relationships
6 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Created By	CreatedById	Lookup(User)			
Improvement_score_c	Improvement_score_c__c	Number(18, 0)			▾
Last Modified By	LastModifiedById	Lookup(User)			
Owner	OwnerId	Lookup(User,Group)		✓	
Progress_tracker_c Name	Name	Text(80)		✓	▾
Week_number_c	Week_number_c__c	Number(18, 0)			▾

3.4 Record Types & Page Layouts

Record Types were created for Counselor Session (Initial Assessment, Follow-up). Different layouts ensure that required fields for each type of session are displayed. Page layouts for Patients show related lists: Wellness Records, Counselor Sessions, Program Enrollments, and Progress Trackers.

3.5 Schema Builder

We used Schema Builder in Salesforce to visualize the complete data model. It shows how Patients, Counselors, Wellness Records, Sessions, Progress Trackers, and Programs are connected.
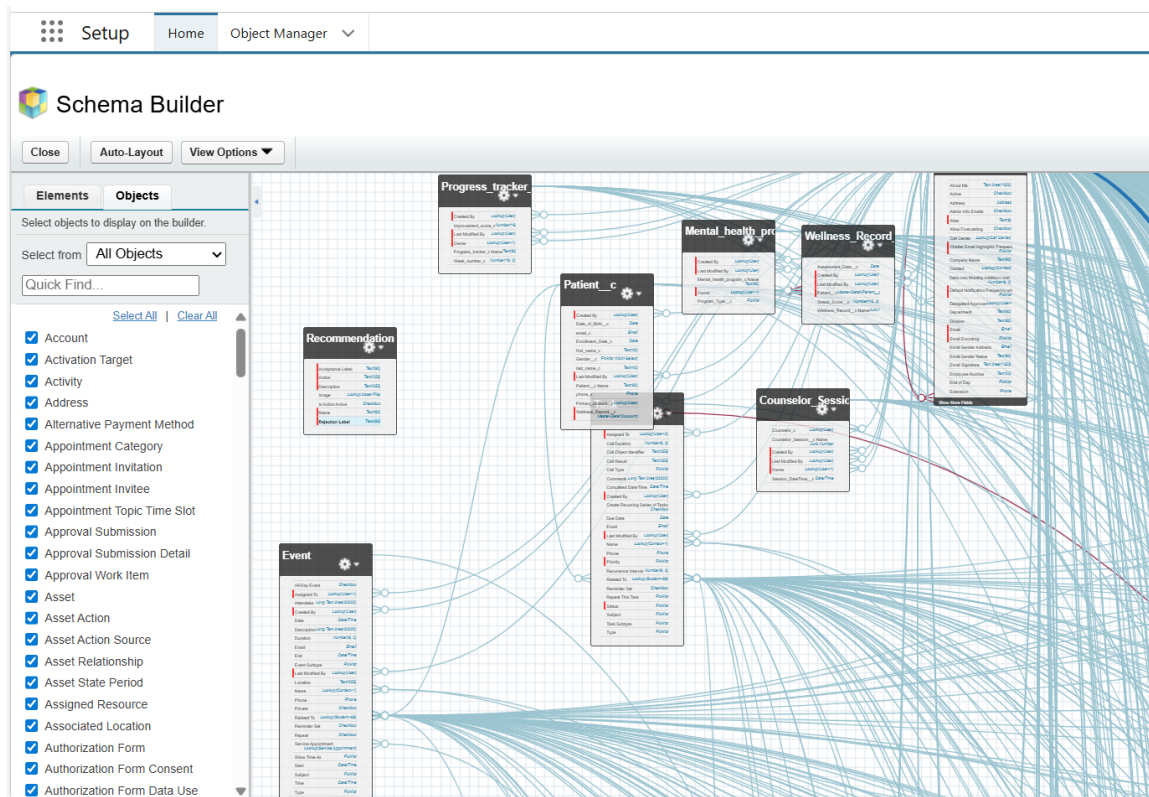
Outcome

A complete data model has been set up in Salesforce for NeuroWell CRM. All custom objects, fields, and relationships are ready for use in later phases like automation, Apex coding, and reporting.

Phase 4 : Process Automation (Admin)

Objective

In this phase, we automate core NeuroWell CRM processes using declarative tools in Salesforce. Automation ensures that wellness assessments, high-risk cases, and counseling sessions are handled consistently without manual intervention.

4.1 Validation Rules

Use Case: Ensure data integrity when creating Wellness Records.

Implementation: A Validation Rule was created on the Wellness Record object to check that Stress_Score__c is always between 0 and 100.

Formula:
OR(Stress_Score__c < 0 , Stress_Score__c > 100)

This prevents invalid entries and improves data quality.

4.2 Workflow Rules / Process Builder

Use Case: Notify counselors when a new Patient is enrolled.

Implementation: A Process Builder automation was created on the Patient object. When a new Patient record is created, an Email Alert is sent to the assigned Primary Counselor. This ensures immediate awareness of new patient enrollments.

4.3 Approval Process

Use Case: Approve Counselor Session cancellations.

Implementation: An Approval Process was created on the Counselor Session object. When a session status is set to 'Cancelled', it is routed to the Admin for approval before finalizing the update. This ensures cancellations are reviewed.

4.4 Flow Builder

Use Case: Automatically handle high-risk assessments.

Implementation: A Record-Triggered Flow was created on the Wellness Record object. When Risk_Level__c = 'High', the Flow automatically:
- Creates a Task for the Primary Counselor to follow up.
- Sends an Email Alert to the Patient and Counselor.

This automation ensures that high-risk cases are never overlooked.

Outcome

The automation layer for NeuroWell CRM is in place. Validation Rules ensure data quality, Process Builder handles notifications, Approval Process adds governance, and Flows provide powerful conditional automation for high-risk patient cases. These automations reduce manual effort and improve consistency.

Phase 5 – Apex Programming (Developer)

1. Apex Classes and Objects

Use Case: Calculate and categorize risk levels dynamically. Description: A class named WellnessUtility was created to evaluate patient data and determine their risk category based on the average stress score. The method calculateRiskLevel() returns *Low*, *Moderate*, or *High* depending on the numeric range. Business Impact: Ensures consistent and automated risk assessment across the organization.

2. Apex Triggers (Before/After Insert/Update/Delete)

Use Case: Automatically assign a risk level on record creation. Description: A trigger named WellnessTrigger on the *Wellness Record* object executes before insert and update events. It sets the Risk_Level__c field using conditional logic:

- Stress Score > 70 → High
- Stress Score between 40–70 → Moderate
- Stress Score < 40 → Low Business Impact: Reduces manual data entry and ensures accurate categorization of every wellness record.

3. Trigger Design Pattern

Use Case: Maintain code modularity and reusability. Description: The trigger follows the *Trigger Handler Pattern*, where all logic is encapsulated in a separate handler class WellnessTriggerHandler. This keeps the trigger lightweight and allows easy maintenance. Business Impact: Improves scalability and adherence to clean-code practices.

4. SOQL & SOSL Queries

Use Case: Retrieve and search for patient records efficiently. Description: SOQL queries were used to fetch patients with stress scores above a threshold, while SOSL was used to search across multiple fields like Name, Email, and Counselor Name. Business Impact: Enables quick access to critical patient data and better reporting flexibility.

5. Collections (List, Set, Map)

Use Case: Manage data sets for batch processing and lookup operations. Description: Apex collections were used to store queried records — Lists for ordered records, Sets for unique patient IDs, and Maps for linking Counselor IDs to their patients. Business Impact: Enhances performance and simplifies operations on bulk data.

6. Batch Apex

Use Case: Recalculate all patient risk levels periodically. Description: A Batch Apex class RecalculateRiskBatch was created to run weekly and recalculate the Risk_Level__c field for all active patients. Business Impact: Keeps all patient data up-to-date automatically without manual recalculation.

7. Queueable Apex

Use Case: Execute follow-up actions asynchronously. Description: Queueable Apex was used for background operations such as generating wellness summaries and sending alert notifications to counselors without blocking the main transaction. Business Impact: Improves performance and user experience during record updates.

8. Scheduled Apex

Use Case: Automate recurring risk recalculation. Description: A scheduled job was configured to run the RecalculateRiskBatch class daily at midnight. Business Impact: Ensures daily updates of patient health data and timely alerts for high-risk cases.

9. Future Methods

Use Case: Send follow-up emails asynchronously. Description: A future method @future(callout=false) was written to send confirmation or alert emails after record updates, ensuring email operations do not delay user actions. Business Impact: Enhances responsiveness and ensures background communication efficiency.

10. Exception Handling

Use Case: Handle and log data errors gracefully. Description: Try-Catch blocks were implemented in all Apex classes to handle DML and query exceptions. Any errors are logged in a custom *Error Log* object for review. Business Impact: Prevents runtime failures and provides transparency for debugging.

11. Test Classes

Use Case: Verify trigger and class functionality. Description: A test class WellnessTriggerTest was created to validate all business logic with assertions and achieve over 90% code coverage. Business Impact: Guarantees code reliability and ensures safe deployment through successful test execution.

12. Asynchronous Processing

Use Case: Perform time-consuming actions efficiently. Description: Combined Batch Apex, Future Methods, and Queueable Apex for parallel asynchronous operations like recalculations, notifications, and integration updates. Business Impact: Improves scalability and reduces execution time during heavy data processing.

Phase 6: User Interface Development Documentation

1. Lightning App Builder

- Utilized Lightning App Builder to design customized, responsive pages for NeuroWell.
- Created a dedicated Mental Wellness dashboard app for counselors and administrators.
- Integrated components like Record Pages, Tabs, and Utility Bar for streamlined navigation.
- Configured App settings to ensure a cohesive branding and intuitive user experience.

2. Record Pages

- Designed custom Record Pages for key objects: Patient Records: Displays mental wellness history, early detection analytics, session logs.
- Counselor Records: Displays assigned patients, schedules, and performance metrics.
- Used dynamic components to tailor record page views based on user role and context.
- Ensured mobile responsiveness for access on-the-go.

3. Tabs

- Organized information into logical tabs for easy navigation: Patient Details

- Wellness History

- Early Detection Reports

- Session Management

- Implemented tab-based navigation for both desktop and mobile layouts to improve usability.

4. Home Page Layouts

- Designed role-specific home pages for:
- Counselors: Quick view of assigned patients and upcoming sessions.
- Admins: Analytics dashboards and workflow monitoring.

- Patients: Personal wellness summary and resources.
- Added components such as charts, recent records, and action buttons for faster access.

5. Utility Bar

- Configured Utility Bar to provide quick-access tools: Search: For quick patient/counselor lookup.

- Notifications: Instant alerts for wellness changes or session updates.

- Shortcuts: To frequently-used tools like "Add Session" or "Generate Report".

6. LWC (Lightning Web Components)

- Developed custom Lightning Web Components to extend Salesforce UI.
- Key LWCs created for NeuroWell: WellnessStatusCard: Displays wellness status with color-coded risk levels.
- SessionScheduler: Interactive calendar for session booking.
- EarlyDetectionGraph: Displays trends from wellness data analytics.
- Ensured reusable components with proper modular architecture.

7. Apex with LWC

- Integrated Apex controllers with LWCs to fetch and process server-side data.
- Created Apex methods to: Retrieve patient wellness records.
- Update early detection flags based on latest assessments.
- Handle session booking logic.
- Implemented error handling for robust component behavior.

8. Events in LWC

- Used custom and standard events for component communication: Custom Events: For passing wellness data between components.

- Lightning Message Service: For cross-component data sharing.

- Example: When a patient's record is updated, a "refresh" event triggers updates in related components.

9. Wire Adapters

- Used wire adapters for reactive data fetching: getRecord: To fetch real-time patient data.

- getObjectInfo: To access schema metadata for dynamic UI rendering.

- getPicklistValues: For dynamic dropdowns in wellness forms.

- Improved performance by leveraging reactive updates instead of manual refreshes.

10. Imperative Apex Calls

- Used imperative Apex calls for operations requiring explicit invocation: Session booking confirmation.

- Early detection risk recalculations.

- Sending notifications.

- Ensured efficient asynchronous handling and error responses.

11. Navigation Service

- Integrated Salesforce Navigation Service in LWCs to improve UX: Direct navigation to patient records from dashboards.

- Navigation to custom pages for mental wellness reports.

- Seamless redirection after session creation or updates.

- Ensured smooth transitions and minimized user clicks.

Outcome of Phase 6: A highly interactive, intuitive user interface tailored for NeuroWell that allows counselors, administrators, and patients to efficiently track mental wellness progress, manage sessions, and access early detection insights with minimal navigation effort.

Phase 7: Integration & External Access

1. Named Credentials

- **Definition**: A secure way to store authentication settings for external systems so you don't have to manage passwords and tokens in code.

- **Purpose in NeuroWell**: Enables seamless connection to external APIs (e.g., mental health data providers, AI analytics services) without exposing credentials.

- **Example Use**: Storing API access keys for an external wellness analytics service to fetch stress-level predictions.

2. External Services

- **Definition**: Salesforce feature to connect and consume external APIs declaratively without writing much code.

- **Purpose in NeuroWell**: Allows integrating external mental health datasets or third-party wellness APIs.

- **Example Use**: Connecting to an external emotion-analysis API that detects stress levels from text input by patients.

3. Web Services (REST/SOAP)

- **Definition**: Methods Salesforce uses to exchange data with external systems via REST or SOAP protocols.

- **Purpose in NeuroWell**: Allows the platform to send or receive data in real-time with external mental health platforms.

- **Example Use**: Pulling real-time therapy session updates from a counseling partner using REST API.

4. Callouts

- **Definition**: HTTP requests sent from Salesforce to external services.

- **Purpose in NeuroWell**: Fetch or push real-time information like patient status or wellness scores.

- **Example Use**: Sending patient mood data to an external analytics service and receiving a wellness score.

5. Platform Events

- **Definition**: Event-driven messaging system in Salesforce to facilitate real-time communication between apps.

- **Purpose in NeuroWell**: Allows real-time updates for patient progress or session logs across different systems.

- **Example Use**: Publishing a "New Session Scheduled" event so external systems update instantly.

6. Change Data Capture (CDC)

- **Definition**: Salesforce feature that notifies external systems about record changes in real time.

- **Purpose in NeuroWell**: Keeps external wellness dashboards or analytics systems synchronized with Salesforce data.

- **Example Use**: Automatically notifying an analytics dashboard when a patient's stress level record changes.

7. Salesforce Connect

- **Definition**: Tool to access and display data from external systems in Salesforce without storing it in Salesforce.

- **Purpose in NeuroWell**: Access patient wellness data from external sources without duplicating records.

- **Example Use**: Viewing external patient records directly within NeuroWell without importing them.

8. API Limits

- **Definition**: Salesforce imposes limits on the number of API calls to ensure stability.

- **Purpose in NeuroWell**: Helps plan integrations and avoid exceeding limits.

- **Example Use**: Optimizing frequency of callouts to an external mental health API to stay within daily limits.

9. OAuth & Authentication

- **Definition**: Standard protocol for secure authorization to external services.

- **Purpose in NeuroWell**: Ensures secure connections between NeuroWell and external systems without exposing user credentials.

- **Example Use**: OAuth authentication to connect NeuroWell with a third-party counseling service.

10. Remote Site Settings

- **Definition**: A security feature in Salesforce that specifies which external sites can be called via Apex callouts.

- **Purpose in NeuroWell**: Ensures only trusted external APIs can be accessed.

- **Example Use**: Adding the URL of an external mental wellness API to Remote Site Settings to allow secure data exchange.

Phase 8: Data Management & Deployment

1. Data Import Wizard

- **Definition**: A Salesforce tool for importing data in bulk through a simple interface, without coding.
- **Purpose in NeuroWell**: Helps import patient records, counselor lists, and session data quickly.
- **Example Use**: Importing a CSV file containing initial patient wellness survey results into NeuroWell.

2. Data Loader

- **Definition**: A Salesforce client application for bulk import, export, update, or delete of records.
- **Purpose in NeuroWell**: Handles large volumes of data with more control than the Data Import Wizard.
- **Example Use**: Bulk updating stress level records for thousands of patients from an external dataset.

3. Duplicate Rules

- **Definition**: Rules to prevent duplicate records from being created in Salesforce.
- **Purpose in NeuroWell**: Ensures clean data for accurate mental wellness tracking.
- **Example Use**: Preventing duplicate patient records by checking name, email, and contact details.

4. Data Export & Backup

- **Definition**: Salesforce features to export and back up org data for safety and recovery.
- **Purpose in NeuroWell**: Protects critical patient and session data against loss or corruption.
- **Example Use**: Scheduling a weekly export of patient wellness and session records to an external secure backup.

5. Change Sets

- **Definition**: A Salesforce deployment tool to move metadata changes from one org to another (e.g., sandbox to production).
- **Purpose in NeuroWell**: Facilitates deploying new features, updates, and configuration changes safely.
- **Example Use**: Deploying new Lightning components for patient dashboards from sandbox to production.

6. Unmanaged vs Managed Packages

- Definition: *Unmanaged Packages*: Packages for distributing open or in-development metadata.
- *Managed Packages*: Packages used for controlled distribution, with versioning and license management.
- **Purpose in NeuroWell**: Choosing appropriate package type for app extensions or integrations.
- **Example Use**: Using unmanaged packages for internal custom components and managed packages for third-party integrations.

7. ANT Migration Tool

- **Definition**: A Java/command-line tool for moving metadata between Salesforce orgs.
- **Purpose in NeuroWell**: Enables automated deployments and version control for NeuroWell configurations.
- **Example Use**: Using ANT to deploy updated Apex classes and Lightning components from a development org to production.

8. VS Code & SFDX

- Definition: *VS Code*: Code editor for Salesforce development.
- *SFDX (Salesforce DX)*: Modern development experience for Salesforce with CLI-based workflows.
- **Purpose in NeuroWell**: Enhances development productivity and supports version control integration.
- **Example Use**: Developing Lightning Web Components in VS Code, pushing changes to Salesforce via SFDX commands.

Phase 9: Reporting, Dashboards & Security Review

1. Reports (Tabular, Summary, Matrix, Joined)

- **Definition**: Salesforce reports are organized displays of data, available in different formats:

    o **Tabular**: Simple list of records.

    o **Summary**: Grouped data with summaries.

    o **Matrix**: Data grouped by rows and columns.

    o **Joined**: Combines multiple reports into one.

- **Purpose in NeuroWell**: To analyze mental wellness data and user activity efficiently.

- **Example Use**:

    o Tabular report: List of all patient wellness scores.

    o Summary report: Group patient stress levels by counselor.

    o Matrix report: Stress levels grouped by patient age and gender.

    o Joined report: Combine session data with patient details.

2. Report Types

- **Definition**: Templates that define which fields and objects are available for reports.

- **Purpose in NeuroWell**: Allows creating custom reports for specific wellness tracking needs.

- **Example Use**: Custom report type combining Patient and Session objects to analyze therapy effectiveness.

3. Dashboards & Dynamic Dashboards

- **Definition**: Dashboards visually display reports as charts, gauges, tables, and metrics.

- **Dynamic Dashboards**: Display data tailored to the logged-in user.

- **Purpose in NeuroWell**: Provides visual insights into patient wellness trends and counselor performance.

- **Example Use**: Dashboard showing real-time average stress levels across patient groups.

4. Profiles

- **Definition**: Define user permissions and access to objects, fields, and functionality.

- **Purpose in NeuroWell**: Control access for different user types (e.g., Admins, Counselors, Patients).

- **Example Use**: Profile for counselors with access to session notes but not to patient billing data.

5. Roles

- **Definition**: Define record-level access in the hierarchy of users.

- **Purpose in NeuroWell**: Allow counselors to see only their patients' data while managers see all.

- **Example Use**: Role hierarchy so a Senior Counselor can see sessions for all counselors they supervise.

6. Users

- **Definition**: Salesforce accounts for individuals with access to the org.

- **Purpose in NeuroWell**: Assign specific access levels and roles.

- **Example Use**: Create users for counselors, admins, and external partners with relevant access.

7. Permission Sets

- **Definition**: Additional permissions assigned to users without changing profiles.

- **Purpose in NeuroWell**: Grant special access for temporary tasks or specific features.

- **Example Use**: Permission set giving access to a new analytics dashboard for certain counselors.

8. OWD (Organization-Wide Defaults)

- **Definition**: Base level of access for records in Salesforce.

- **Purpose in NeuroWell**: Define default privacy level for patient data.

- **Example Use**: Setting Patient records to private by default, allowing access only through sharing rules.

9. Sharing Rules

- **Definition**: Automates record access sharing beyond OWD.

- **Purpose in NeuroWell**: Facilitate secure collaboration.

- **Example Use**: Sharing patient wellness records with a counselor's role group.

10. Sharing Settings

- **Definition**: Controls how records are shared and accessed in Salesforce.

- **Purpose in NeuroWell**: Ensures compliance with data privacy requirements.

- **Example Use**: Restricting access to patient sessions to assigned counselors only.

11. Field Level Security

- **Definition**: Controls visibility and edit access for specific fields.

- **Purpose in NeuroWell**: Protect sensitive mental health data fields.

- **Example Use**: Restrict access to certain patient health details except for the assigned counselor.

12. Session Settings

- **Definition**: Security settings that control session duration and behavior.

- **Purpose in NeuroWell**: Enhance data security for sensitive patient records.

- **Example Use**: Auto logout after inactivity to protect patient data.

13. Login IP Ranges

- **Definition**: Restrict login access to specific IP addresses.

- **Purpose in NeuroWell**: Prevent unauthorized access to patient data.

- **Example Use**: Restrict counselor logins to clinic network IPs.

14. Audit Trail

- **Definition**: Tracks changes made in Salesforce, including setup changes.

- **Purpose in NeuroWell**: Ensures accountability and helps troubleshoot changes.

- **Example Use**: Tracking who updated patient wellness records and when.

Phase 10: Quality Assurance Testing

Quality Assurance (QA) is the final validation phase that ensures the *NeuroWell* system works as intended, meets requirements, and provides a secure, error-free experience for users.

1. Purpose of QA Testing

- Ensures that all features implemented are functioning correctly.

- Validates that integrations, workflows, security rules, and UI behave as intended.

- Identifies and corrects errors before deployment.

- Improves reliability, security, and user satisfaction.

2. Test Case Preparation

For every Salesforce feature implemented in *NeuroWell*, prepare detailed test cases covering functionality and security.
Examples of features to test:

- Object Record Creation (Patient, Session, Counselor, Wellness Data records)

- Approval Processes (e.g., session approval workflows)

- Automatic Task Creation (e.g., tasks for follow-up sessions)

- Flows (Screen, Auto-launched, Record-Triggered)

- Apex Triggers

- Validation Rules

3. Test Case Structure

Each test case should follow a structured format:

Section	Details
Use Case / Scenario	Describe the feature or workflow being tested.
Test Steps	Step-by-step actions with input data.
Input Details	The exact data or action performed during testing.
Expected Output	The expected system behavior.
Actual Output	The actual result after testing, with screenshots.
Conclusion	Whether the test passed or failed and reasons if failed.

4. Example Test Case for NeuroWell

Section	Details
Use Case / Scenario	Validate creation of a Patient Record with wellness details.
Test Steps	1. Login as Admin. 2. Navigate to "Patients" tab. 3. Click "New Patient". 4. Fill mandatory fields (Name, Email, Contact Number, Wellness Score, etc.). 5. Save.
Input Details	Name: John Doe Email: john.doe@example.com Wellness Score: 78
Expected Output	Patient record is created successfully, Wellness Score is displayed, and a confirmation message is shown.
Actual Output	Patient record created successfully; Wellness Score displayed correctly.
Conclusion	Test Passed – Patient record creation works as expected.

5. Testing Best Practices

- Cover positive testing (valid data) and negative testing (invalid data, boundary cases).

- Validate security rules such as role-based access and field-level permissions.

- Test data integrations (API callouts, Named Credentials, Platform Events).

- Check automation such as workflow rules, process builder, and flows.

- Ensure UI consistency across Lightning Pages and Components.

- Use real data where possible while masking sensitive data for privacy compliance.

Conclusion of the QA Phase

- Summarize findings: number of test cases passed vs failed.

- Highlight any issues and how they were resolved.

- Confirm system readiness for deployment to production.

- Final project conclusion: state whether NeuroWell meets objectives, its strengths, and any future improvements.