**Problem Statement: AI-Powered Customer Churn Prediction & Retention**

**Project Overview**

The AI-Powered Customer Churn Prediction & Retention system is designed to help businesses identify customers who are likely to discontinue using products or services and provide actionable insights to retain them. By centralizing customer data, applying machine learning models, and automating retention workflows, the system empowers organizations to reduce churn, improve customer satisfaction, and maximize lifetime value.

**Problem Statement**

Businesses often struggle with:

* Dispersed and inconsistent customer data across sales, support, and engagement platforms.
* Difficulty in identifying at-risk customers before they leave.
* Manual, reactive approaches to customer complaints and dissatisfaction.
* Lack of real-time insights into customer behavior, reducing the effectiveness of retention strategies.

There is a need for a unified system that can:

* Centralize all customer-related data (purchases, interactions, support history).
* Use AI/ML models to predict churn probability.
* Automate retention strategies such as personalized offers, loyalty programs, and proactive engagement.
* Provide dashboards and insights for decision-makers to track churn rate, retention effectiveness, and customer satisfaction.

**Project Objectives**

1. **Centralize Customer Data**  
   Collect demographic, transactional, and behavioral data in one platform.
2. **Predict Customer Churn with AI**  
   Apply machine learning algorithms to identify “at-risk” customers.
3. **Automate Retention Strategies**  
   Trigger personalized offers, renewal reminders, and engagement campaigns.
4. **Customer Segmentation**  
   Classify customers based on churn risk, lifetime value, and engagement level.
5. **Performance Dashboards**  
   Visualize churn rates, customer lifetime value (CLV), and retention campaign outcomes.

**Salesforce Concepts Used**

To achieve the objectives of **AI-Powered Customer Churn Prediction & Retention**, the following Salesforce Admin and Developer concepts will be applied:

**Admin Concepts**

1. **Custom Objects & Fields**
   * Customer Profile, Purchase History, Support Cases, Churn Risk Score.
2. **Relationships (Master-Detail, Lookup)**
   * Link customer records with transactions, support tickets, and engagement logs.
3. **Page Layouts & Record Types**
   * Tailored layouts for Sales, Marketing, and Customer Support teams.
4. **Validation Rules**
   * Ensure data accuracy (e.g., no negative transaction values, mandatory contact details).
5. **Flows / Process Builder / Workflow Rules**
   * Automate churn notifications, retention workflows (discounts, loyalty offers), and follow-up reminders.
6. **Reports & Dashboards**
   * Track churn rate, customer retention campaigns, and satisfaction metrics.

**Developer Concepts**

1. **Apex Triggers & Classes**
   * Calculate churn scores, update risk categories automatically, and trigger retention actions.
2. **Lightning Components / LWC**
   * Custom dashboards for churn prediction insights, at-risk customer lists, and campaign tracking.
3. **Einstein Analytics / AI Integration**
   * Apply machine learning models (churn prediction, sentiment analysis) within Salesforce for accurate forecasts.
4. **Integration (Optional)**
   * Connect with external systems (CRM, marketing platforms, chatbots) to pull engagement and feedback data

**Security & Sharing**

1. **Profiles & Permission Sets**
   * Different access levels for Customer Support, Sales Executives, Data Scientists, and Managers.
2. **Sharing Rules**
   * Ensure users only view customer data relevant to their region, team, or role.