

## 🔗 Problem Statement: Design a Membership Program with Tiers

You are tasked with designing the backend system for a **Membership Program** for a FirstClub. The platform aims to offer users subscription-based memberships with **tiered benefits**, and a smooth experience integrated with the shopping and checkout journey.

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### 💡 Key Requirements:

#### 1. Membership Plans:

- Users can choose from **Monthly**, **Quarterly**, and **Yearly** membership plans.
- Each plan comes with specific pricing

#### 2. Membership Benefits: {Optional}

- **Free delivery** on eligible orders.
- **Extra X% discount** on selected items or categories.
- Access to **exclusive deals and early access to sales**.
- Optional: **Priority support** for premium members.
- Each tier unlocks additional perks (e.g., higher discounts, faster delivery, exclusive coupons). - should be configurable

#### 3. User Actions:

- Get Membership Plans and Tier to be selected by the user
- Subscribe to a plan (plan + tier).
- Upgrade, downgrade(Membership Tier), or cancel a subscription.
- Track current membership and expiry.

#### 4. Membership Tiers:

- Users move through **tiers** (e.g., Silver, Gold, Platinum) based on criteria like:
  - Number of Order more than X
  - Total Order value in a month
  - User belonging to a certain cohort

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The code should be running, demo-able and APIs should be functional.  
You will be evaluated on the abstractions created, entity design, extensibility and modularity.  
Follow the best practices for **Java**, bonus for thinking around concurrency.