**Project Name**

**Agri-CPQ** — A Configure, Price, Quote System for Agricultural Crop Cultivation Deals

**Problem Statement**

In rural areas, when a farmer hires another farmer or service provider to cultivate crops, pricing negotiations are manual and inconsistent. Pricing changes with the number of crops, type of crops, and season, but there’s no transparent, automated way to calculate and finalize a quote.

**Solution**

Agri-CPQ automates **crop selection, pricing, discounts, and quote generation** so farmers can:

* Configure what they want to cultivate.
* Get an instant and fair price based on rules.
* Receive a professional quote with cost breakdown.
* Reduce disputes and speed up deal closure.

**Core Features (MVP)**

1. **User Roles**
   * **Farmer/Landowner** → Sets prices, discount tiers.
   * **Buyer/Contract Farmer** → Selects crops and gets a quote.
2. **Crop Configuration**
   * Choose crop type (Rice, Wheat, Maize, etc.).
   * Select number of crops.
   * Optional: Season selection (Kharif/Rabi).
3. **Pricing Engine**
   * Base price per crop.
   * Tier-based discount rules (e.g., 2 crops → 5% off, 3 crops → 10% off).
   * Auto calculation of final price.
4. **Quote Generation**
   * PDF or online view with:
     + Crop details.
     + Pricing breakdown.
     + Total cost.
     + Validity period.
5. **Simple Approval Flow**
   * Buyer can approve online.
   * Farmer gets notified.

**Database Schema (MVP)**

**Tables/Collections:**

* users → role, name, contact, location.
* crops → name, base\_price, season.
* discount\_rules → crop\_id, min\_crops, discount\_percent.
* quotes → buyer\_id, farmer\_id, crop\_details, total\_price, status

**API Endpoints (MVP)**

**Farmer Side**

* POST /crops → Add new crop with price.
* POST /discounts → Add discount rules.
* GET /quotes → View quotes.

**Buyer Side**

* GET /crops → List crops & prices.
* POST /quote → Request quote (auto-calculate).
* POST /quote/approve/:id → Approve quote.

**ech Stack**

* **Frontend:** React (Form for selection + Live Price Calculation)
* **Backend:** Python (FastAPI)
* **Database:** MongoDB (flexible for crop rules)
* **Auth:** JWT
* **PDF Generation:** pdfkit or jsPDF

**Pitch Tagline**

*"Helping farmers close cultivation deals faster with transparent, automated pricing."***Workflow**

**Farmer** → Login → Add crops & prices → Customer request → Enter crops → Apply CPQ logic → Show price → Save & share quote

