

HARVEST HORIZON

→ *A smart Farmer Support System*



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INTRODUCTION

HarvestHorizon ---- A smart Farmer support System

PURPOSE :

- Object-Oriented Programming (OOP)
- Java Collections (ArrayList, HashMap)
- Conditional Logic & Automation

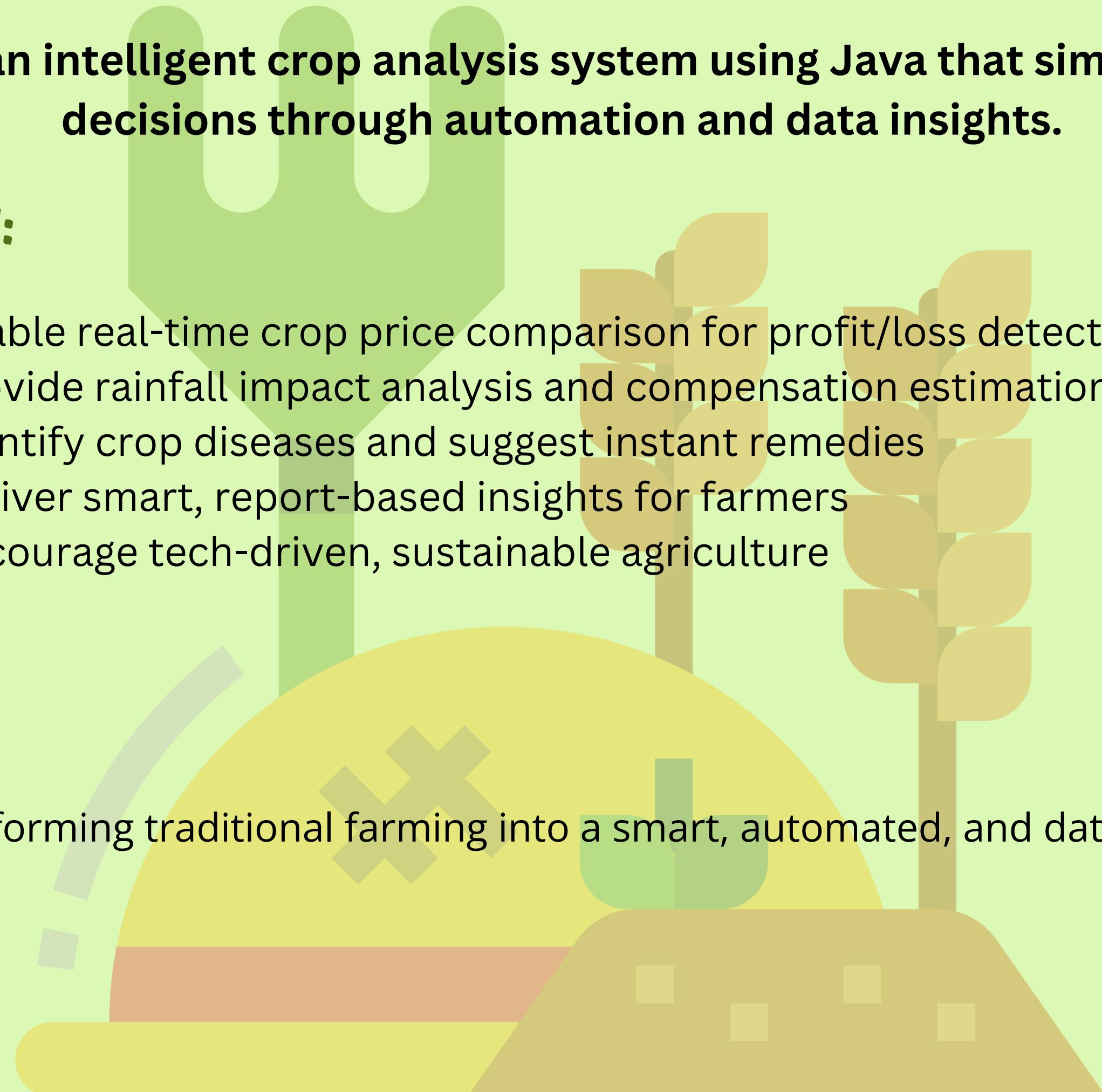
CORE CONCEPT USED :

- Tracks daily crop price variations
- Detects diseases & gives treatment tips
- Calculates rainfall compensation automatically
- Generates smart reports with profit/loss details

WHAT IT DOES:

To make farming smarter, efficient, and data-driven





 To create an intelligent crop analysis system using Java that simplifies farming decisions through automation and data insights.

OUR CORE AIM:

-  Enable real-time crop price comparison for profit/loss detection
-  Provide rainfall impact analysis and compensation estimation
-  Identify crop diseases and suggest instant remedies
-  Deliver smart, report-based insights for farmers
-  Encourage tech-driven, sustainable agriculture

ESSENCE:

Transforming traditional farming into a smart, automated, and data-powered experience.

PROBLEM STATEMENT :

- agr Intoday'sagriculture,farmersface major challenges due to:
 - Unstable crop prices, leading to uncertain income
 - Unidentified crop diseases causing heavy yield losses
 - Rainfall damage without proper compensation tracking
 - Lack of data-driven insights for decision-making
 - Manual record-keeping, making monitoring difficult

NEEDS:

- Asmart system that can automatically analyze crop data, detect issues, and guide farmers with actionable solutions.



METHODOLOGY



STEP 1 – DATA COLLECTION:

Farmer inputs details like name, land size, crop, and season.

STEP 2 – AUTOMATED DATA FETCHING:

System retrieves today's and yesterday's crop prices from a stored database.

STEP 3 – DISEASE DETECTION:

Automatically identifies possible crop diseases and gives treatment suggestions.

STEP 4 – RAINFALL ANALYSIS:

Calculates compensation for rain-affected land area.

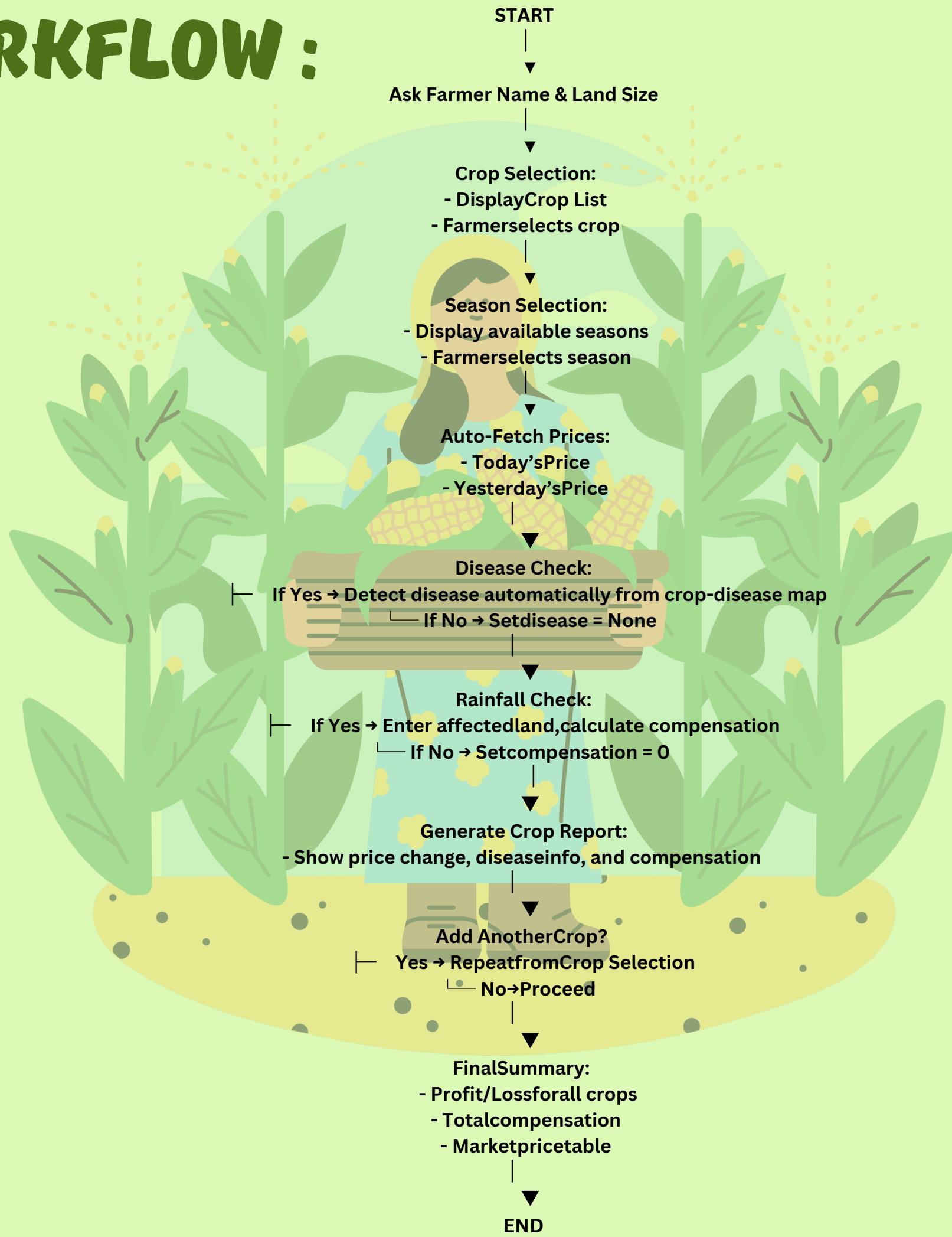
STEP 5 – REPORT GENERATION:

Generates a detailed report showing profit/loss, disease info, and compensation details.

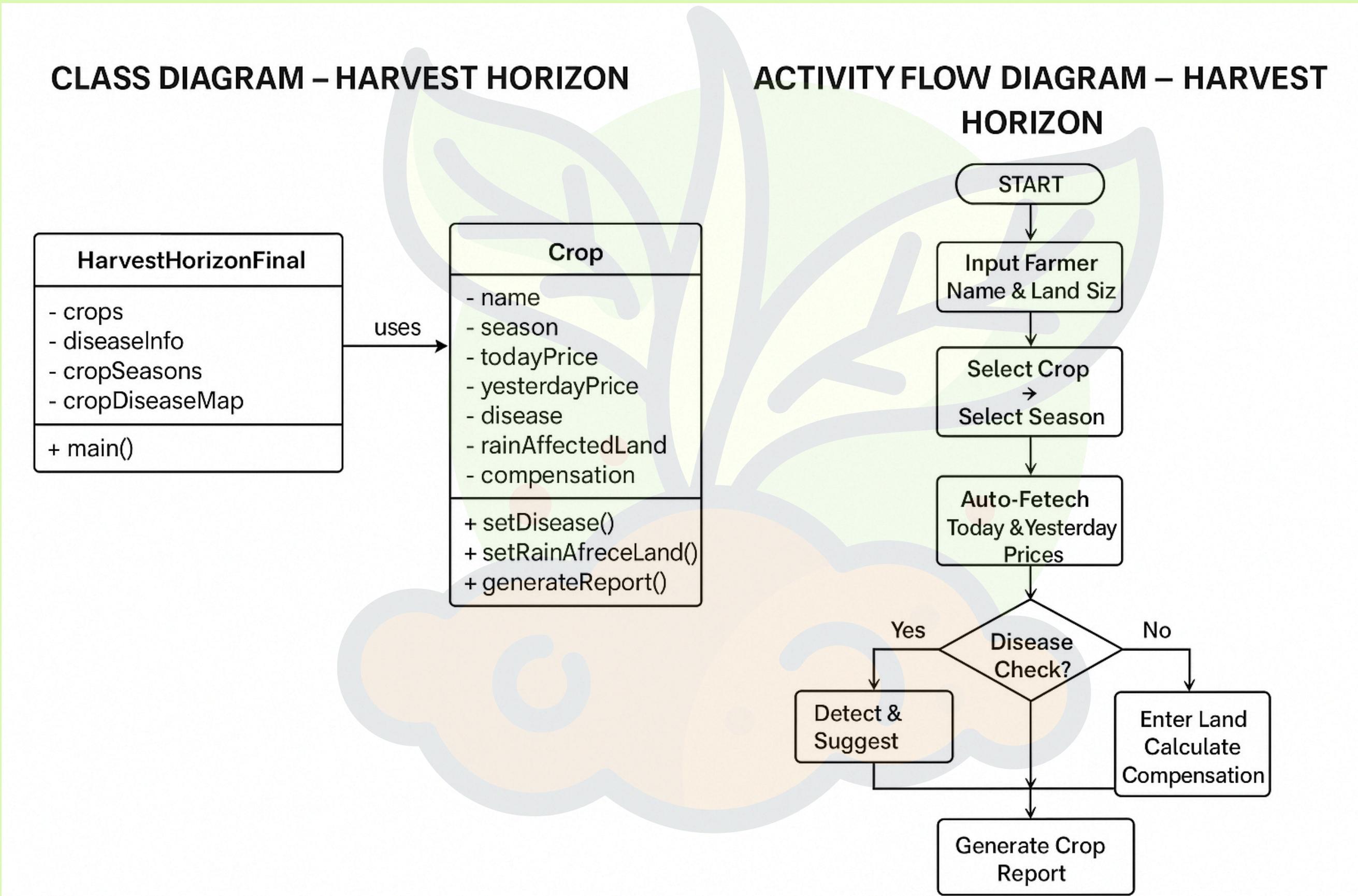
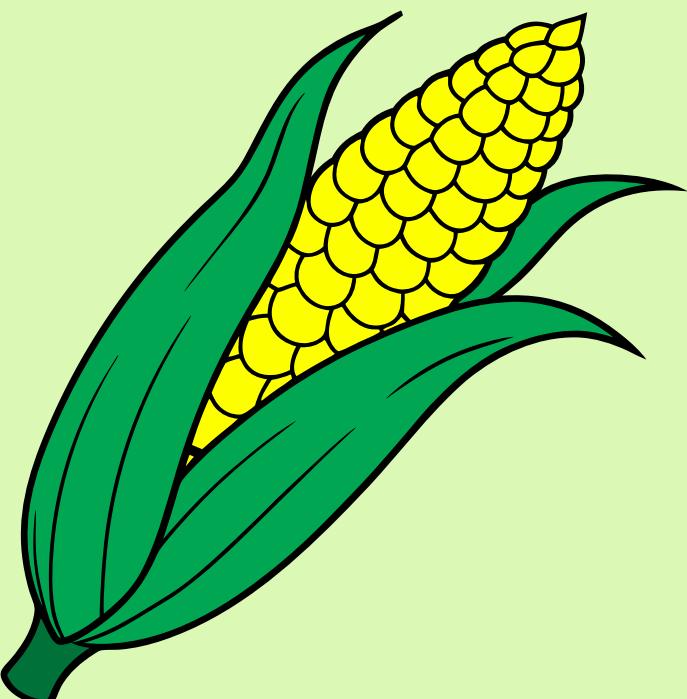
STEP 6 – SUMMARY DISPLAY:

Shows final summary of all crops with market comparison and total compensation.

WORKFLOW :



UML DIAGRAM :





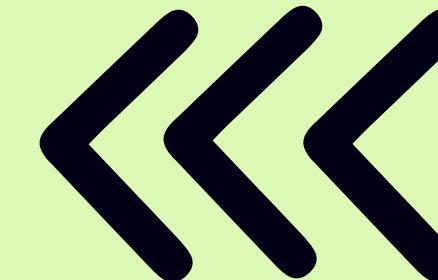
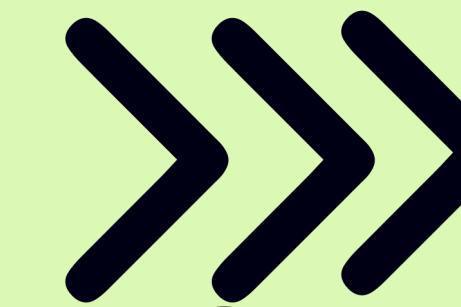
COMPARISON – HARVEST HORIZON

PRICE MONITORING:

Tracks Today vs Yesterday for all crops 💰
Highlights profit (↑) or loss (↓) instantly

OVERALL EFFICIENCY:

- Crop price monitoring Automatic vs Manual
- Disease detection Auto vs Manual
- Rainfall compensation Auto vs Manual
- Profit/Loss summary Instant vs Not Clear
- Farmer decision support High vs Low



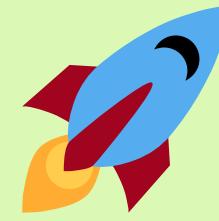
CROP HEALTH:

- Detects diseases automatically 🌐
- Provides treatment suggestions 💊
- Ensures healthy yield



RAINFALL COMPENSATION:

- Compares affected vs total land
- Calculates compensation automatically



FUTURE SCOPE – HARVEST HORIZON



GOAL :

Make farming smarter, automated, and data-driven

MOBILE & WEB APP:

Access reports anytime



LIVE MARKET UPDATES:

Real-time crop prices



AI DISEASE PREDICTION:

Early detection of crop diseases



WEATHER INTEGRATION:

Anticipate rainfall & damage



GRAPHS & DASHBOARDS:

Easy visualization of crop data



Thank You!

