AI AND ML PROJECT SPRINT

AI/ML Project Charter Template

1. Project Title

GrowMart- ~grow with us

2. Team Details

Team Name: **Team Sankalp**

Team Members & Roles:

- Member 1 – Front end and Team Manager(Koushik)

- Member 2 – AI Developer(Jyanesh)

- Member 3 – Backend Developer(Manish)

- Member 4 – AI Developer(Yuvraj)

3. Problem Statement

We are Solving a problem which is upscaling small scale business and naïve sellers by AI suggestions recommendations related to market trands and seasonal items according to the geographical locations

4. Stakeholders

Primary Users: Sellers(shop keepers)

Secondary Stakeholders: Clients(customers)

Mentors/Reviewers: Suraj Mourya Sir

5. Objectives

1. **Objective 1:** AI integrated analysis using market trends and providing suggestions to user

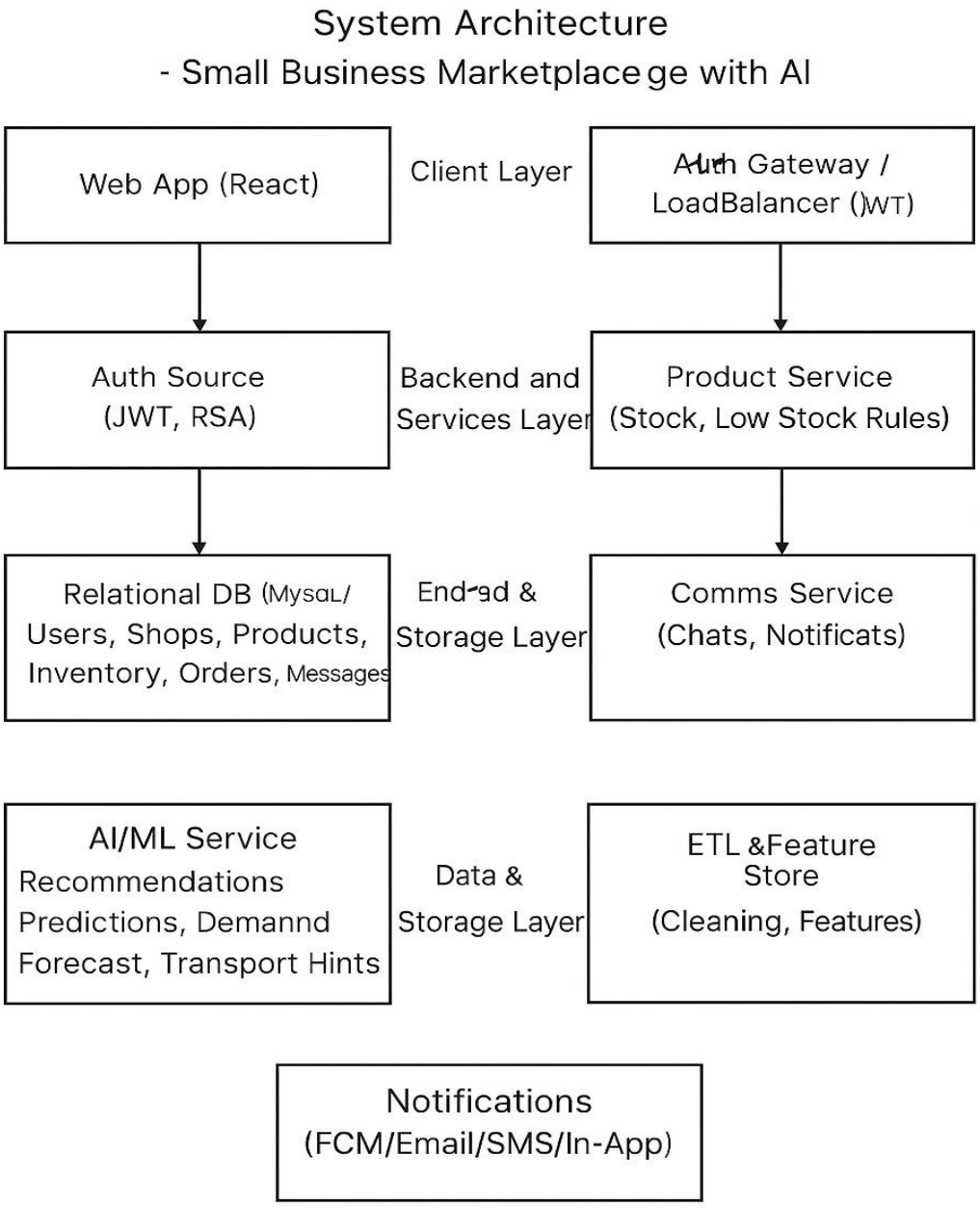
2. **Objective 2:** Setting up Shop keeper store and customizing based on inventory

3. **Objective 3:** For buyers a platform which is affordable and conviently located

4. **Objective 4:** Bridging the gap between small scale sellers to have nation wide reach

5. **Objective 5:** Inventory Alerts for the shop keepers to re-stock there products and for customer product recommendation system when the product is about to finished

6. System Architecture Diagram



7. Comparison of Technologies

Technology / Framework	Key Features	Pros	Cons	Suitability for Our Project
Technology 1: React.js	Dynamic pages	dynamic web pages	complex to implement	Yes
Technology 2: Spring boot	easy to manage microp services	rapid and secure develpoment	complex to implement multiple functions	Yes
Technology 3: Hugging	free ai models for use	open source	only basic models are provided	Yes

Recommended final choice:
Why was it chosen?

Model Name	Algorithm Type	Dataset Used	Accuracy / F1-score	Training Time	Strengths	Weaknesses
Model 1: Inventory Analysis	Rule based	Kaggle	75% /A	2weeks	accurate results	
Model 2: AI recomendations	User Based	Sales,product info and supplier data	75 % / A	3weeks	accurate results	

Recommended Final Model
Best trade-off: Accuracy vs. Efficiency
Why chosen?

9. Success Metrics

- Accuracy ≥ 80 %

- F1-score ≥ A+

- Processing Time ≤ 3 weeks

- Responsible AI: Bias check passed

- Usability: Clear documentation + working demo

1. Model Performance

- Accuracy Target: ≥ 75%
- F1-Score Target: ≥ A
- Precision: ≥ 80 %
- Recall: ≥ 80 %
- Regression (if applicable): MSE ≤ 75

2. Efficiency & Scalability

- Processing Time per Query: ≤ 80sec
- Memory Usage: ≤ 2(low Scale)GB
- Dataset Scalability: Handles up to 2GB(low Scale)records without major performance drop

3. Responsible AI & Fairness

- Bias Check Completed:
- Fairness Metric Used (e.g., demographic parity, equalized odds): Equal Oppurtunity
- Transparency: Dataset sources documented (Yes)
- Explainability: SHAP / LIME / Other: SHAP and Lime are used

4. Usability & Adoption

- Working Demo: still under development
- Number of Test Users: 5
- Feedback Score (Avg.): 3/ 5
- Documentation Completed:yes

5. Team & Process Metrics

- Weekly Progress Updates Submitted: Yes
- Risk Register Maintained: Yes
- Peer Review Participation (✓ per member): [yes] Member 1 [yes] Member 2 [yes] Member 3 [ ] Member 4
- Mentor Feedback Incorporated

10. Work Breakdown Structure (WBS)

Phase	Tasks	Owner	Timeline	Deliverables
Phase 1: Planning	Foundation Set up	Koushik,Manish	1 week	Login, Register, Shop profile
Phase 2: Modeling	Core Features and Shops and products	Whole team	2 Weeks	Entire Front end With Backend Management and AI model development
Phase 3: Evaluation	Inventory Notifications and AI integration	Yuvaraj and Jyanesh	1 week	AI model which predicts inventory management and also recommends for the shop keeper
Phase 4: Finalization	Testing and Deployment	Whole Team	1 week	Connecting all the components

11. Risks & Assumptions

1. Data-Related Risks

- **Possible Risk:** Some Confidential Risks
- **Why this matters:** For getting accurate results

- **Mitigation Plan:** Using Data from pre existed data sets
- **Assumption:** can give accurate decsions upto 80%

2. Model/Algorithm Risks

- **Possible Risk:** Efficieny and time
- **Why this matters:** Better model performance
- **Mitigation Plan:** Working consistently and using AI help
- **Assumption:** May be achieved in complete time

3. Technical/Resource Risks

- **Possible Risk:** Some models are in the pay as you go way
- **Why this matters:** For better model development
- **Mitigation Plan:** Searching for the best and free model
- **Assumption:** it can be helpful for creating a good model

4. Team/Collaboration Risks

- **Possible Risk:** some members went to their hometown
- **Why this matters:** consistency and effective communication
- **Mitigation Plan:** tracking their daily progress
- **Assumption:** can be solved upto 80%

5. Ethical & Responsible AI Risks

- **Possible Risk:** Not Having proper storage platforms at free of cost for managing data
- **Why this matters:** data handling and security
- **Mitigation Plan:** using free trails
- **Assumption:** can achieve or goal upto 80%

6. Timeline Risks

- **Possible Risk:** AI model Development and Deployment of the project
- **Why this matters:** to build a good working prototype
- **Mitigation Plan:** Working consistently and finishing the pheses before the time deadlines
- **Assumption:** can achieve by this

13. References Template

This section provides a structured template for citing all datasets, libraries, research papers, GitHub repositories, and websites used in your project. Please replace the placeholders with your project details.

Datasets

- Dataset Name: Product Managent
- Hosting Platform: Kaggle
- Year: 2024
- Link: https://www.kaggle.com/

Python Libraries and Tools

- Library Name: TensorFlow
- Version Used: 2.20.0
- Official Documentation Link: https://www.tensorflow.org/about

Websites and Blog

- Website Name: Go Daddy
- Access Link: https://www.godaddy.com/