



Disclosing the problem statement



On 7th March 5:30 pm



Disclosing the problem statement

DESIGN SPARK CHALLENGE

SCHOOL OF DESIGN THINKING

'AgriConnect' - A DIGITAL MARKET PLACE

I'm Rajesh Kumar, an agricultural scientist with over 20 years of experience working closely with farmers across India. Throughout my career, I've witnessed the immense challenges farmers face—ranging from accessing fair markets to coping with unpredictable weather and natural disasters. These issues not only threaten their livelihoods but also impact the nation's food security.

Agriculture is the backbone of our economy, yet farmers often struggle to achieve fair returns for their hard work. Middlemen exploit them, unpredictable weather disrupts their plans, and natural disasters wipe out their crops. Without access to timely information and fair markets, farmers are left vulnerable and unable to thrive. This is why I'm passionate about creating an AI-powered solution—AgriConnect—to empower farmers, improve their income, and make agriculture more sustainable, resilient and to top it all a profitable venture. Today the farmers face the following challenges:

- **Lack of Fair Market Access:** Farmers are often forced to sell their produce through middlemen who offer unfair prices, leaving them with minimal profits.
- **Unpredictable Weather and Natural Disasters:** Erratic weather patterns and inadequate access to accurate forecasts lead to poor decision-making in planting, irrigation, and harvesting.
- **Access to human labour and farm machinery:** There is delay in procuring human labour or machinery either during tilling, sowing of seeds or while harvesting.
- **Limited Resources:** Many farmers lack access to personalized crop advisories and efficient logistics support, further hindering their productivity and profitability. This also includes knowledge of existing policies / schemes both from the Central and State Governments.

These challenges create a cycle of uncertainty and financial instability for farmers, making it difficult for them to sustain their livelihoods and contribute to the nation's food security. To address these issues, AgriConnect will focus on the following key expectations among others:

- **Fair Market Access:** Creating a digital marketplace where farmers can connect directly with buyers and receive fair prices for their produce in a timely manner.
- **Weather and Disaster Management:** Providing real-time, localized weather forecasts and early disaster alerts to help farmers protect their crops.

DESIGN SPARK CHALLENGE

SCHOOL OF DESIGN THINKING

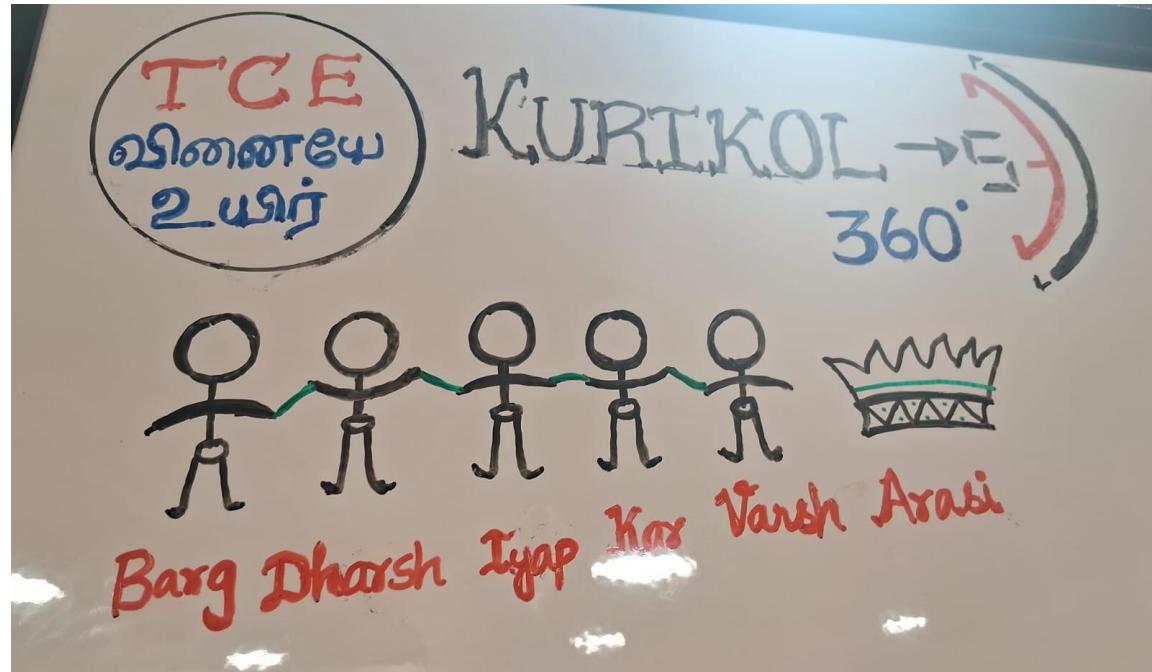
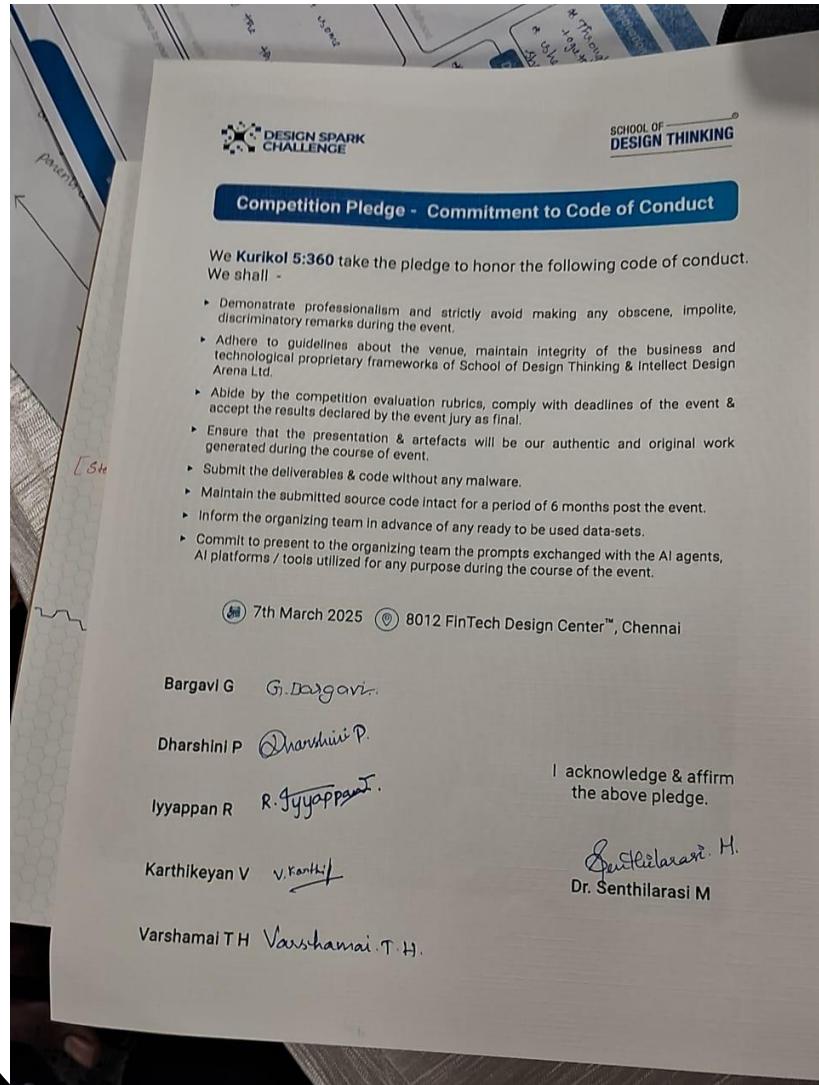
- **Personalized Crop Advisories:** Offering AI-driven recommendations for crop management based on weather, soil conditions, and regional data including soil and water management.
- **Efficient Logistics:** Integrating with local logistics providers to ensure timely and cost-effective transportation of produce.
- **Community Collaboration:** Enabling farmers to share local observations, warnings, and best practices with each other.
- **Access to Quality Seeds and Fertilizers:** Farmers are provided easy access to high-quality seeds and fertilizers at affordable prices, with payment made through AgriConnect
- **Financial Inclusion:** Easy access to loans and subsidies as provided by all financial institutions
- **Market Intelligence:** Access to real-time market prices and trends.

When these are successfully addressed, AgriConnect will revolutionize Indian agriculture. Farmers will no longer be at the mercy of middlemen; instead, they'll have direct access to fair markets, ensuring better income and financial stability. With accurate weather predictions and disaster alerts, they'll be able to make informed decisions, reducing crop losses and improving yields. AI-driven advisories will empower them to optimize crop management, while efficient logistics will ensure their produce reaches markets on time.

The tangible solution delivered by AgriConnect should be measurable which should be visible from the next 12-24 months. I am excited to bring this vision to life and empower farmers with the tools they need to thrive in a rapidly changing world.

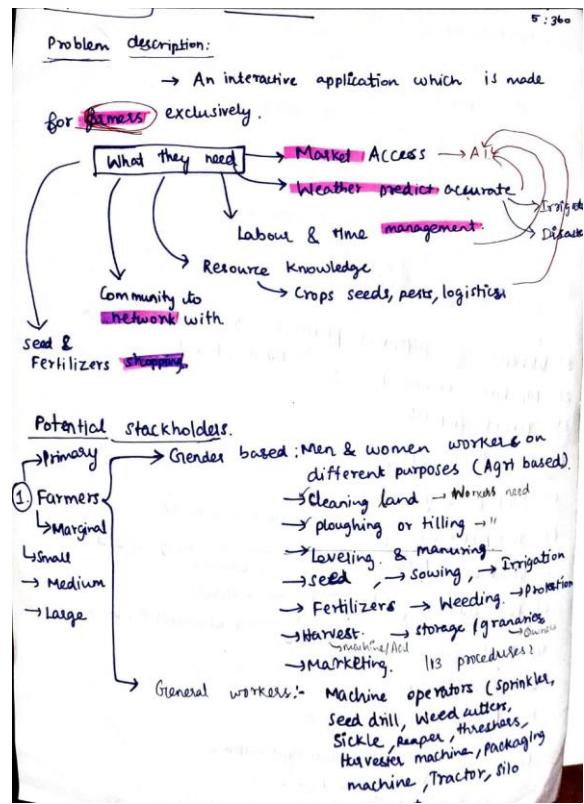
ARTEFACTS

Signing up

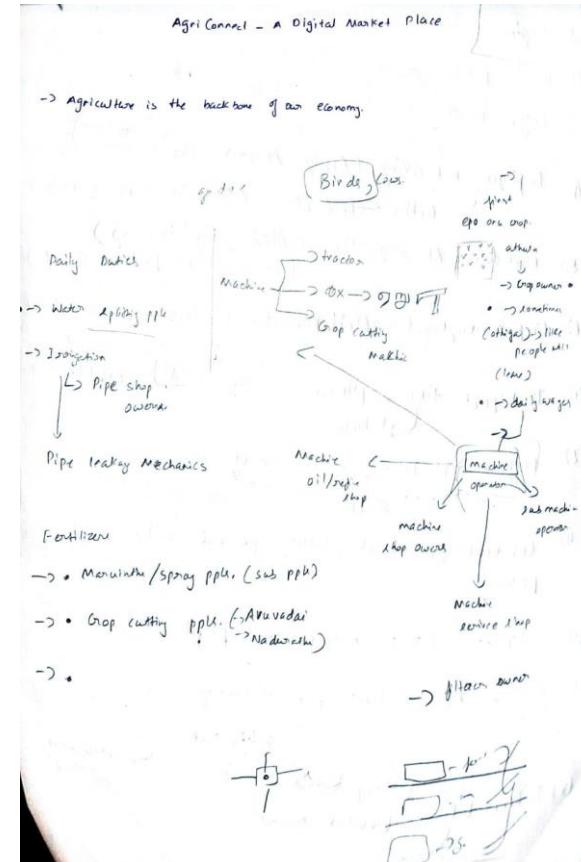


ARTEFACTS

Discussion



- Organic farmers → use natural
 - Aquaculture farmers.
 - Livestock farmers → ~~on agriculture~~ / Rain based
 - Irrigation → Bore based
 - Tenant farmers → cultivate land owned by others.
 - Local Govt. { 2 types } { 8 forms }
 - 1) Workers for different process (...). (~~100 day based~~)
 - 2) Machine owners (...), mechanic
 - 3) Tenant farmers
 - 4) Bore / water supply owners
 5. Soil Granary Owner
 - 6) Transporter (Lorry / Tempo drivers, owners)
 - 7) Wholesale Retailers
 - 8) End user (vegetable buyer)
 - ~~Business~~ ~~Business~~ ~~Business~~
 - Hotels
 - ~~Business~~ ~~Business~~ ~~Business~~, festival
 - 9) Land sellers (agriculture, ~~Business~~ ~~Business~~)
 - 10.) Agri Students.
 - 11.) Pesticide & fertilizer sellers
 - Industries (NPK)
 - 12.) Government Sellers / NGOs



ARTEFACTS

Discussion

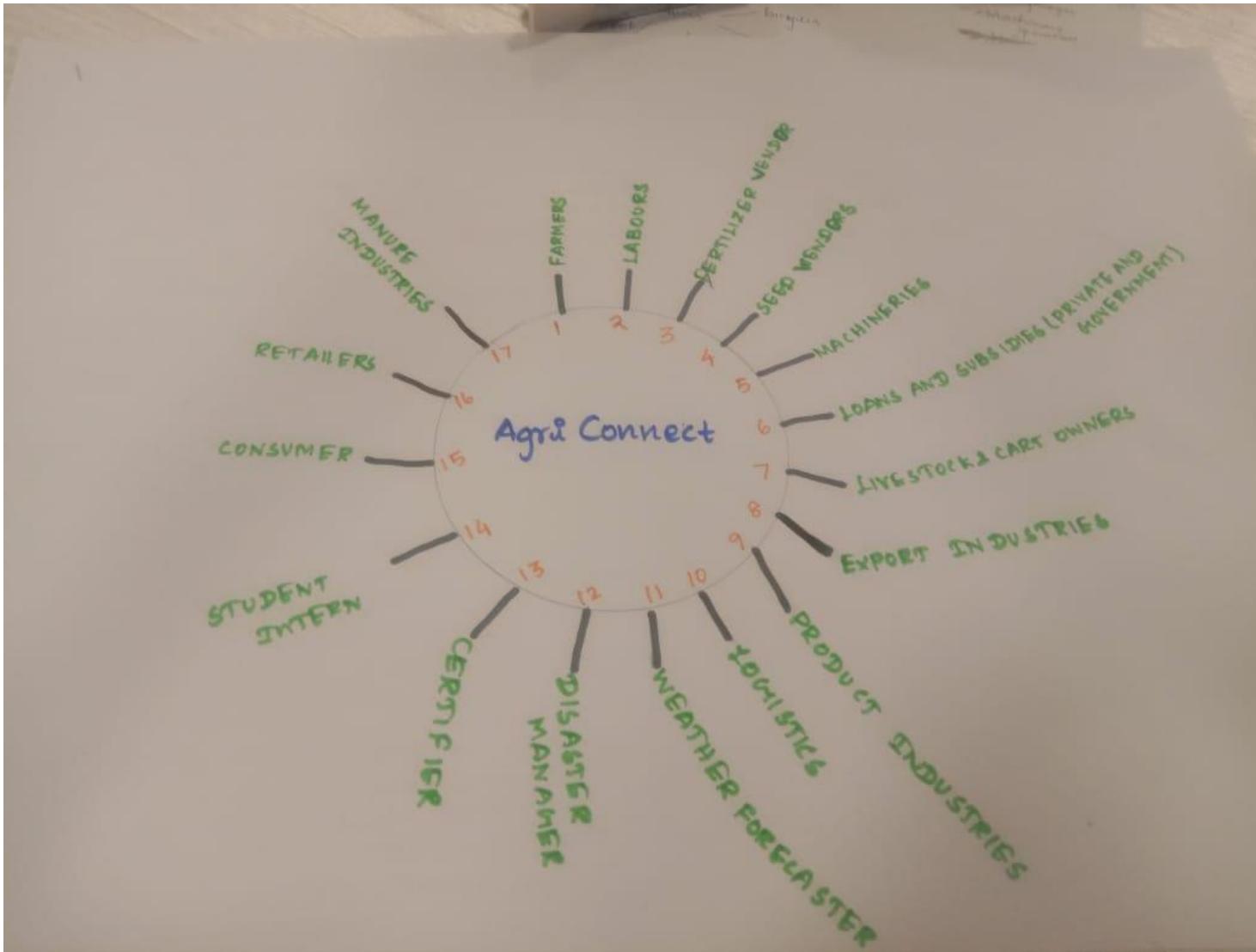
- 1) Regional weather forecast.
- 2) Weather predict of near regions & predict.
- 3) Login based on region of land
- 4) Employee networking (Apply / Hire) for Farmbook
 - Booking → Payment → Book for Harvest machine
- 5) Real time AI suggestion → (Is it going to rain? Is it good to do this? that?)
- 6) Crop management → (Soil, parameter, weather, regional data)
 - I/P to AI → predict pest
- 7) Transport time → optimize, vehicle
- 8) Farmer → delivery person → customer.
 - Direct
- 9) Connect to Bank, Society, financial aids, loan info provide
- 10) Calculate interest based on profit:
- 11) Should be scalable for normal farmers
 - Livestock farmers : (Hays)
- 12) Different UI
 - Crop based
 - Livestock based.

- various fair markets:
 → Unpredictable weather:
 → Natural disasters:
 Stake Holders:
1. Farmers:
 - * small scale.
 - * Large scale.
 - * Farmer cooperatives (Helps)
 2. Market Intermediaries:
 - * Wholesalers (Farmers - Retailer)
 - * Retailers (sell to consumers).
 - * Commission agent (Transactions)
 3. Government:
 - * Ministry of agri.
 - * Agri market bodies.
 - * Food safety & Authorities.
 - * Local Govt. bodies.
- + Afribusiness companies:

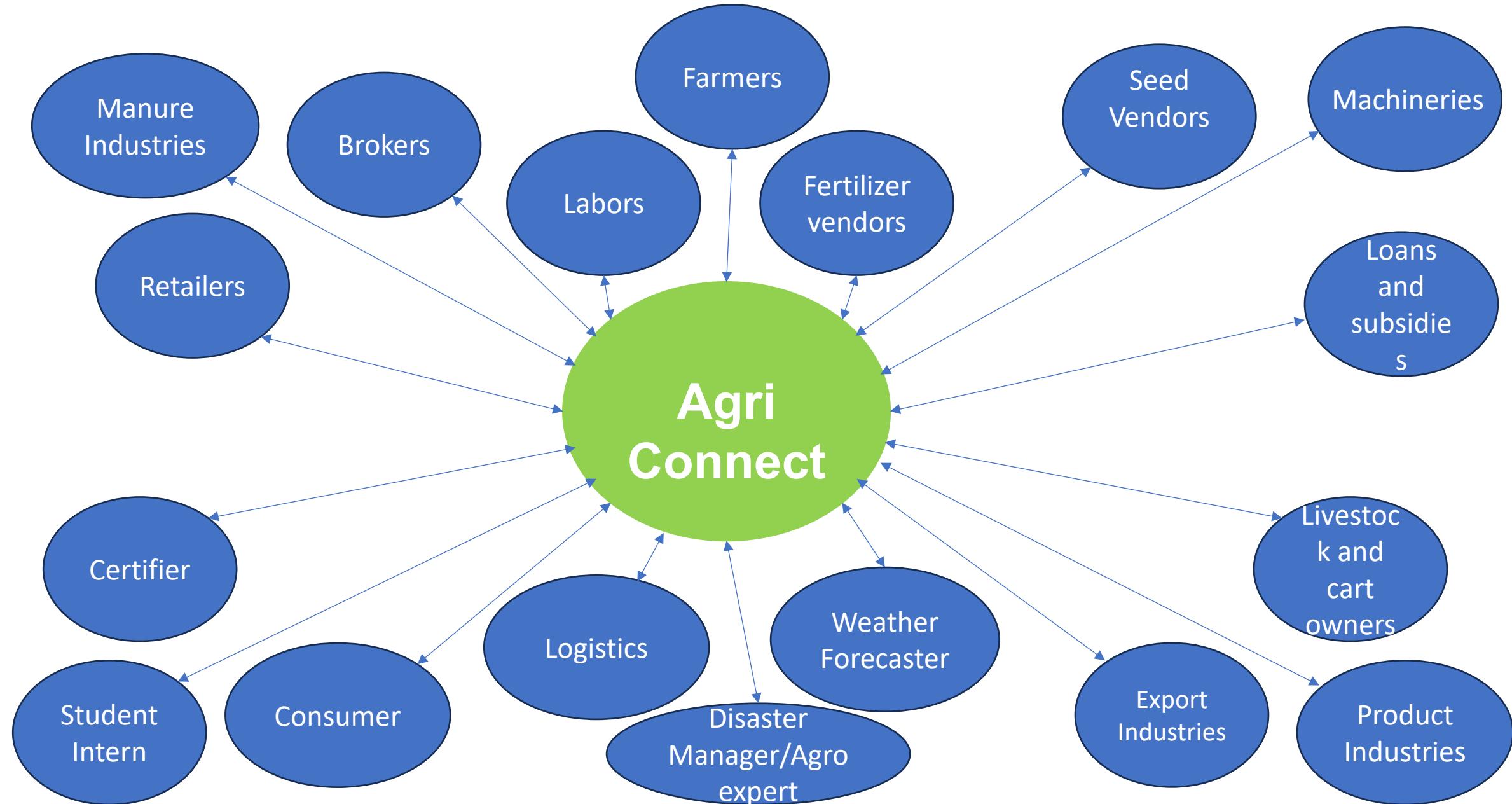
- Stake Holders IAP
- ① Farmer, Lease owner, Land lessor
 - ② Daily wages: Land workers.
 - ③ Machinery workers → Mechanic, Cref
 - ④ Fertilizer shop:
 - ⑤ Feed prod. Govt./private.
 - ⑥ Raw material industries.
 - ⑦ Skin care, Hair care.
 - ⑧ Water producer
 - ⑨ Transportation / store place / Goodown.
 - ⑩ Loans - Banks
 - ↳ Optimize.
 - ⑪ CISF students
 - ⑫ Export Industry
 - ⑬ Weather data provider
 - ⑭ Logistics (Transport).
 - ⑮ Advertise Agents → AI machine, distribute
 - ⑯ Govt. (Kisan).
 - ⑰ Pricing
 - ⑱ Disease manager (Crop-based).
 - ⑲ Livestock & Past owners
 - ⑳
-

ARTEFACTS

18 Stakeholders-Identified

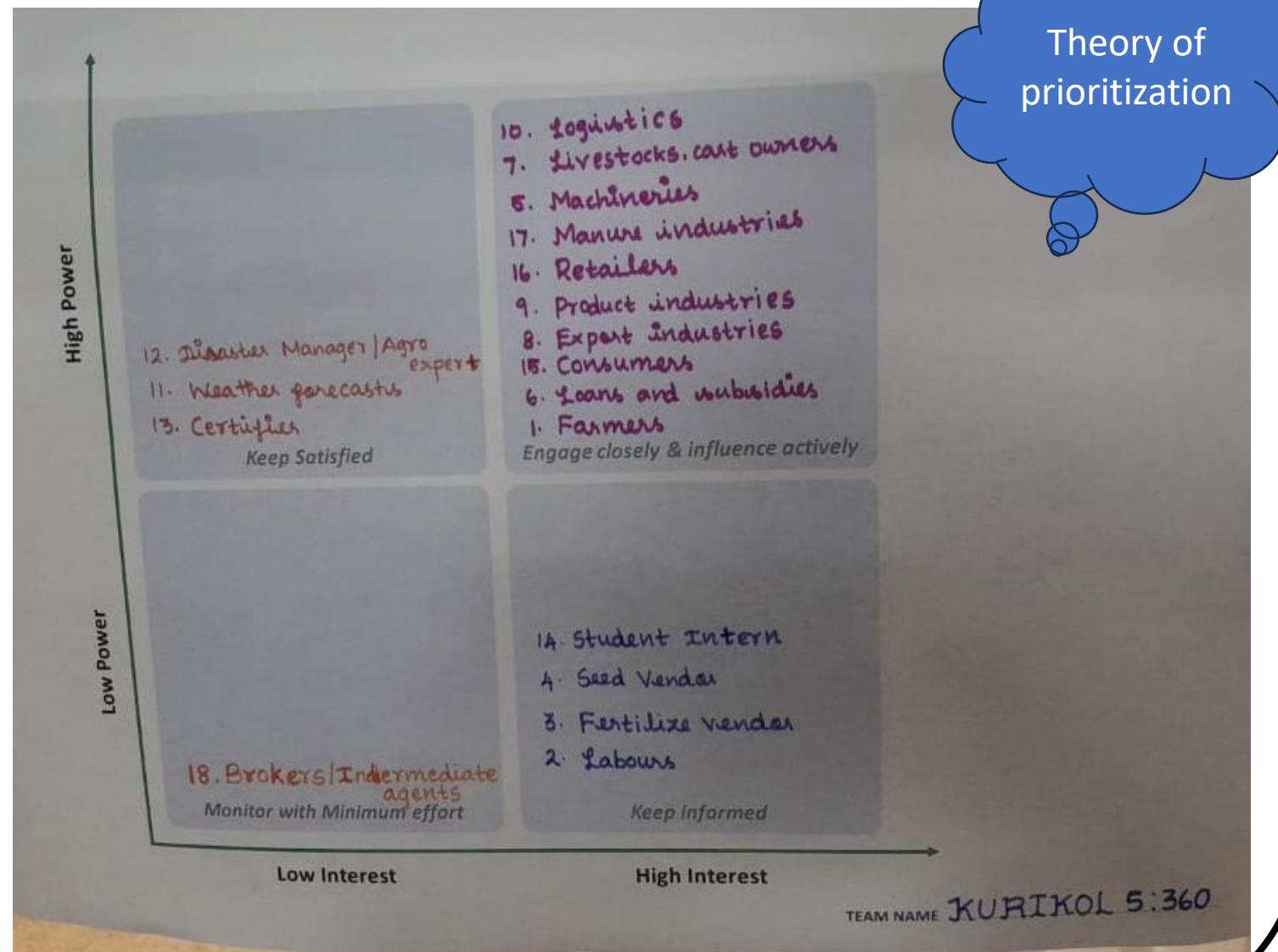
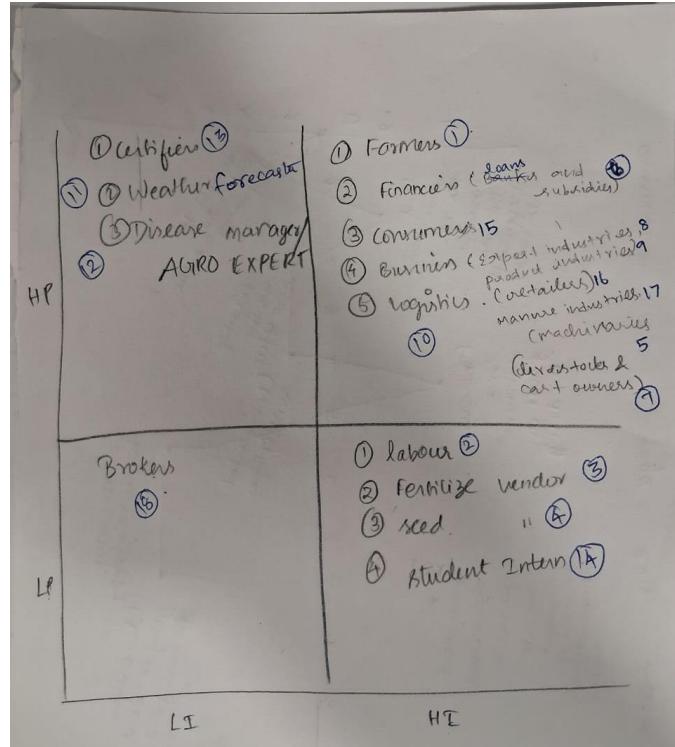


STAKEHOLDERS OF AGRICONNECT



ARTEFACTS

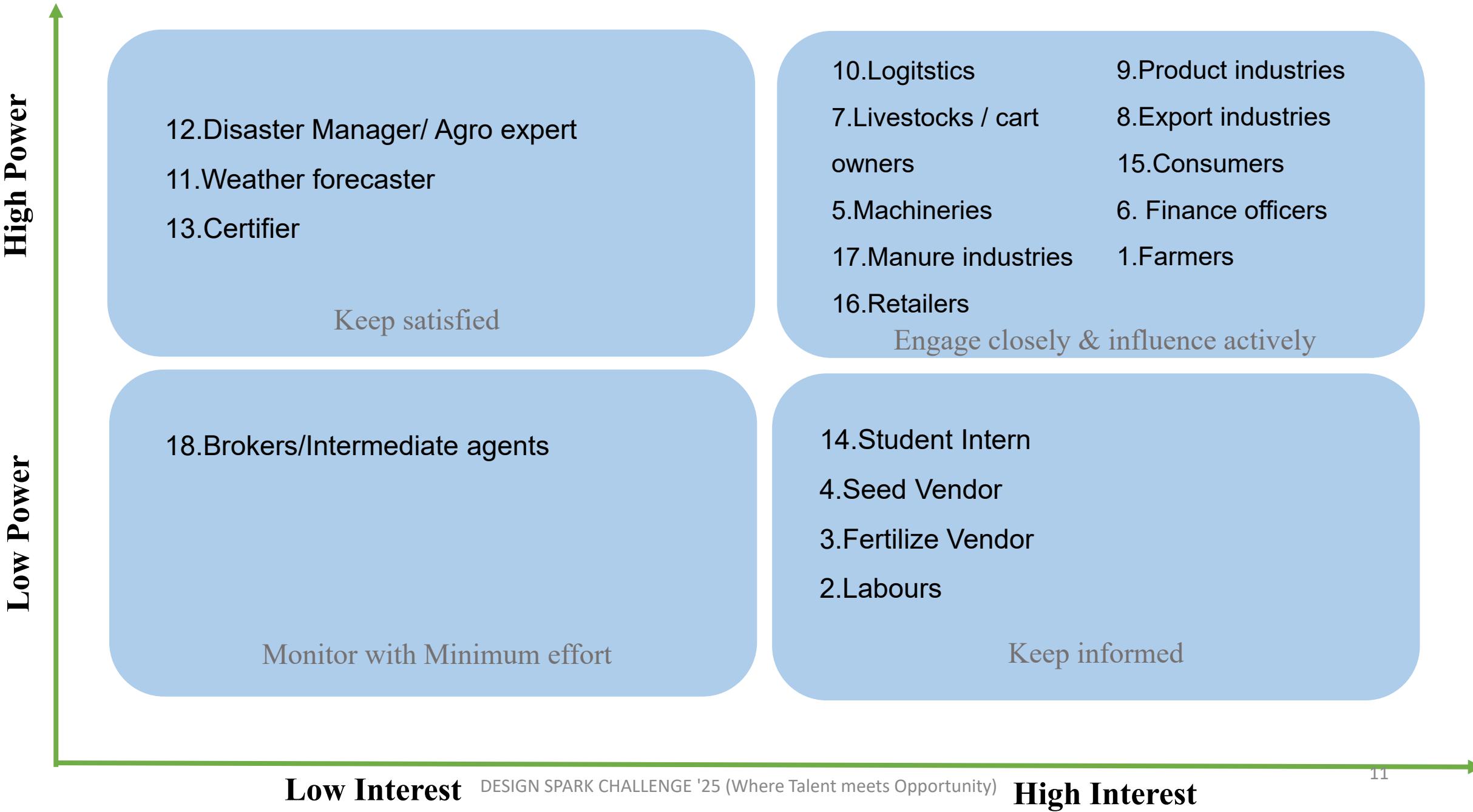
Power Interest Matrix



POWER – INTEREST MATRIX

High Power

Low Power



POWER – INTEREST MATRIX

High Power

Keep satisfied

18.Brokers/Intermediate agents

Monitor with Minimum effort

Low Interest

10.Logistics

7.Livestocks / cart
owners

5.Machineries

17.Manure industries

16.Retailers

Engage closely & influence actively

9.Product industries

8.Export industries

15.Consumers

6.Finance officers

1.Farmers

14.Student Intern

4.Seed Vendor

3.Fertilize Vendor

2.Labours

Keep informed

ARTEFACTS

Farmer-Persona 1

MR. Dhoni, Farmer, Madurai

Persona

TEAM NAME
KURIKOL 5:360.

Background

- Comes from a multi-generational farming family.
- Works with traditional farming techniques.
- Relies on local markets and middlemen to sell produce.
- Faces seasonal income fluctuations.

Family background, education, childhood,

Challenges faced

- Low market prices due to middleman.
- Lack of good market to sell produce.
- Unpredictable weather & natural disasters affect crops.
- Limited awareness of modern farming techniques.
- Short of labour & transportation issues.
- Lack of access to available schemes

Challenges faced by the person in dealing with his/her stakeholders

Motivation

- Farming is the primary source of income.
- Wants to protect land for future generation.
- Wishes to continue the family legacy of farming.
- Takes a pride in contributing to food production.

Doubts / Fears

- Fear of crop failure due to weather
- Uncertainty about getting a fair price for produce.
- Doubts about investing in new technology
- Concern about the next generation to farm

What are the doubts/ fears faced by the individual

Aspirations

- Improve farming productivity.
- Secure a stable income to support the family.
- Protect a farmland for future generations

What this individual aspires to be / vision

Construct a story while explaining the persona to your peers and document the insights.

Dhoni, a 42 year old farmer from a small village, wakes up before dawn to tend to his fields. Farming has been in his family for generations, and he takes pride in growing crops that feed thousands. But every season brings new challenges.

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Mr.Dhoni, Farmer, Madurai

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Story

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- Wishes to continue the family legacy of farming.
- Takes pride in contributing to food production.

Doubts/Fears

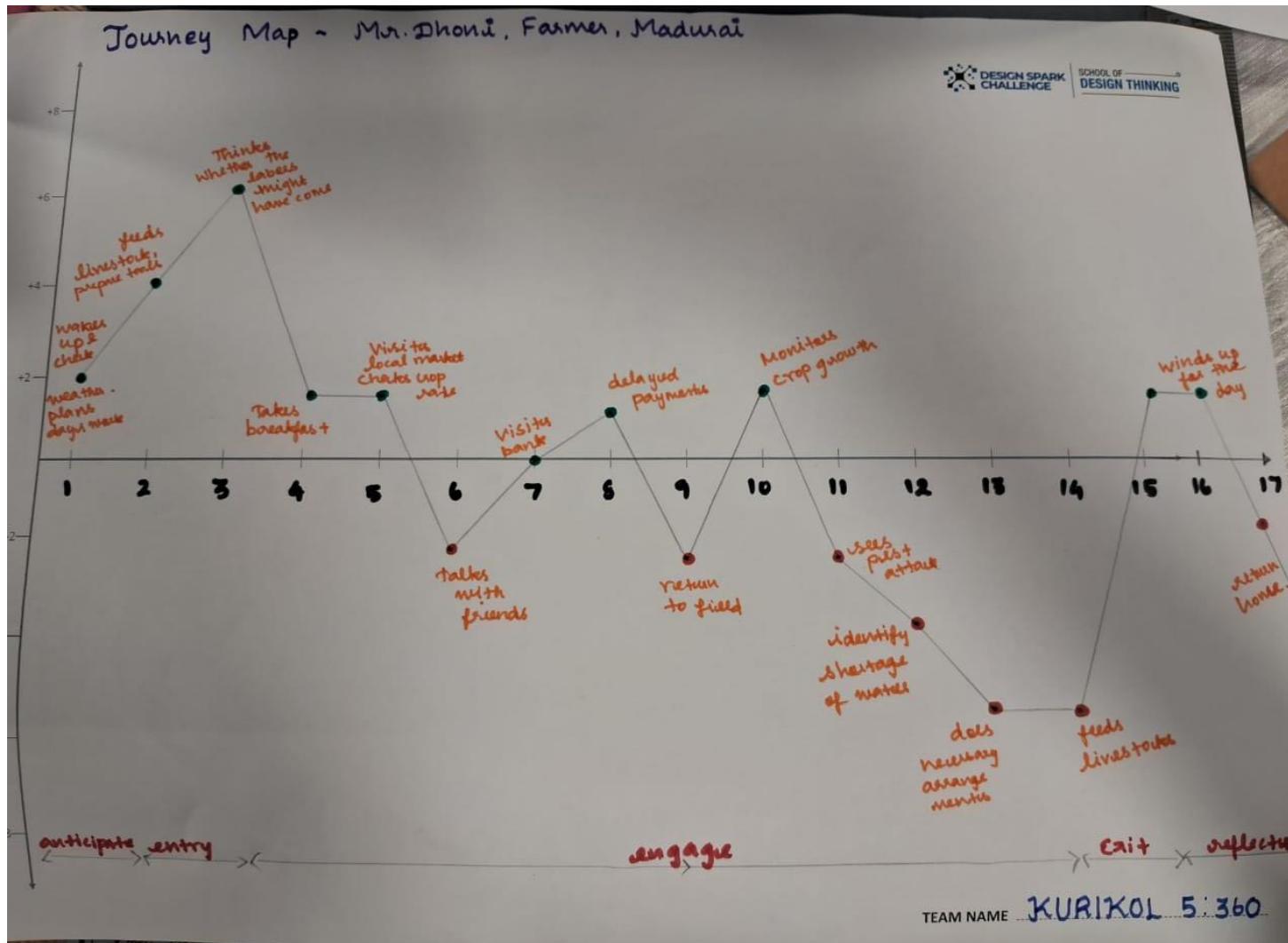
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- Concern about the next generation continuing farming .

Aspirations

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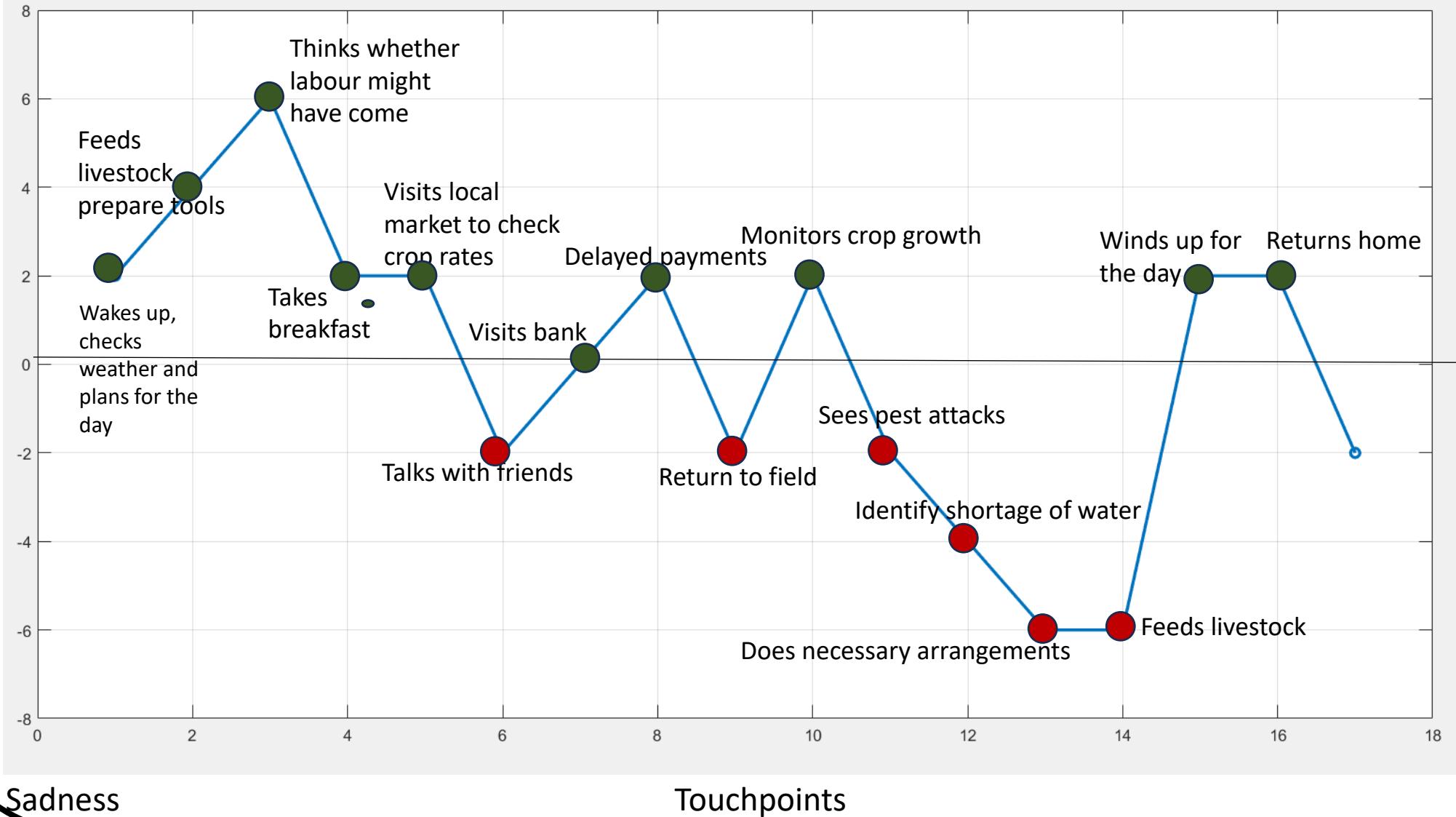
ARTEFACTS

Journey Map, Mr.Dhoni , Farmer-Persona 1



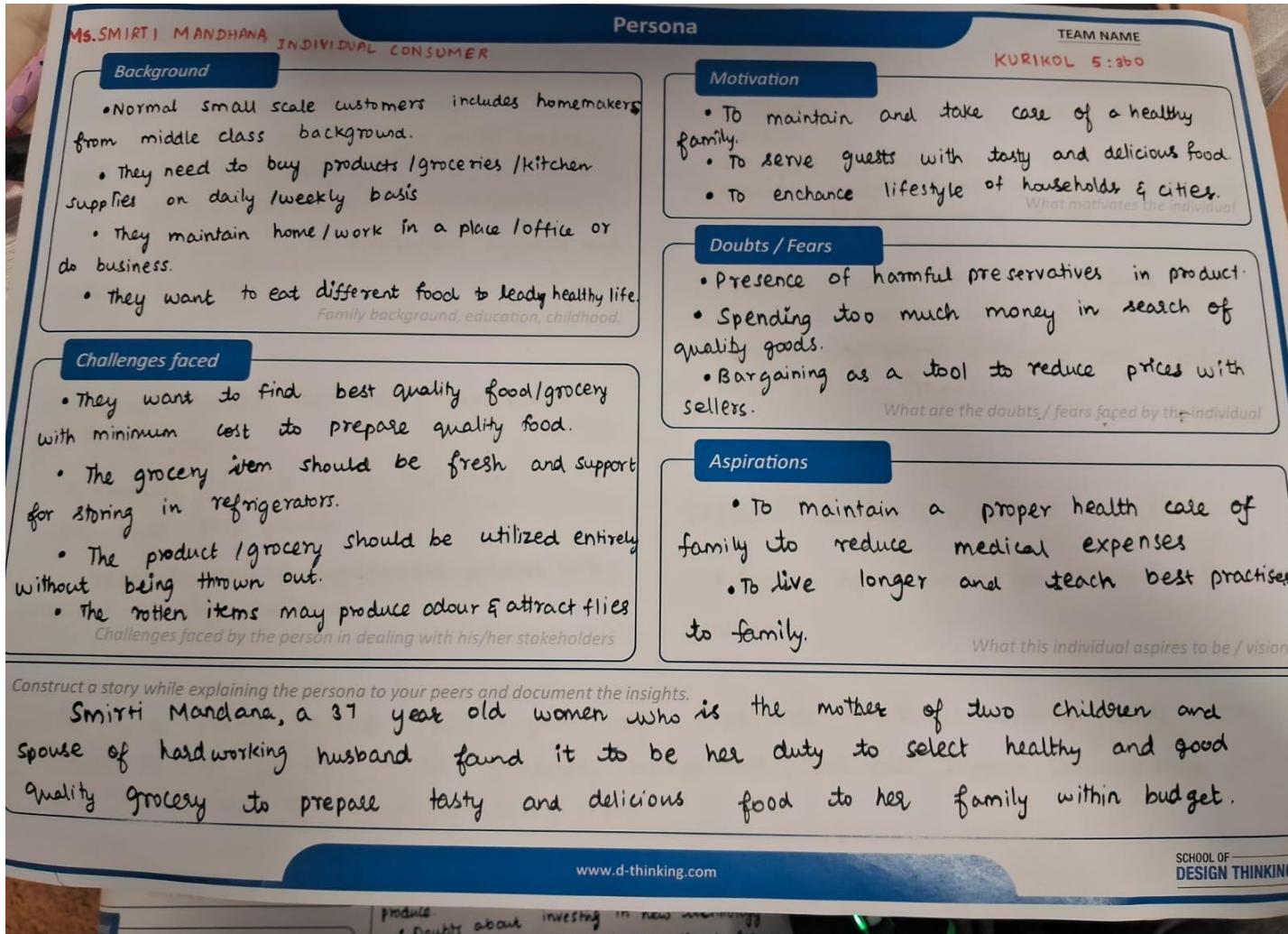
JOURNEY MAP(Before Agriconnect)

Happiness



ARTEFACTS

House wife(consumer)-Persona-2





Mrs.Smirti Mandhana, House wife(consumer)

Background

- Normal small scale customers includes homemakers from middle class background.
- They need to buy products/groceries/kitchen supplies on daily or weekly or monthly basis
- They work in a place/office or do business for their life.
- They want different food /items to lead their daily life engaging.

Challenges faced

- They want to find best quality food /grocery with minimum cost to prepare quality food.
- The grocery product should be fresh and support for storing in refrigerators.
- The product/grocery should be utilized entirely without being thrown out.
- The rotten items may sometimes produce odour and attract fruit flies.

Story

Smirti Mandana, a 37 year old women who is the mother of two children and spouse of a hardworking husband found it to be her duty to select healthy and good quality grocery to prepare tasty and delicious food to her family within her budget.

Motivation

- To maintain and take care of a healthy family .
- To serve guests with tasty and delicious food.
- To enhance lifestyle of households and cities.

Doubts/Fears

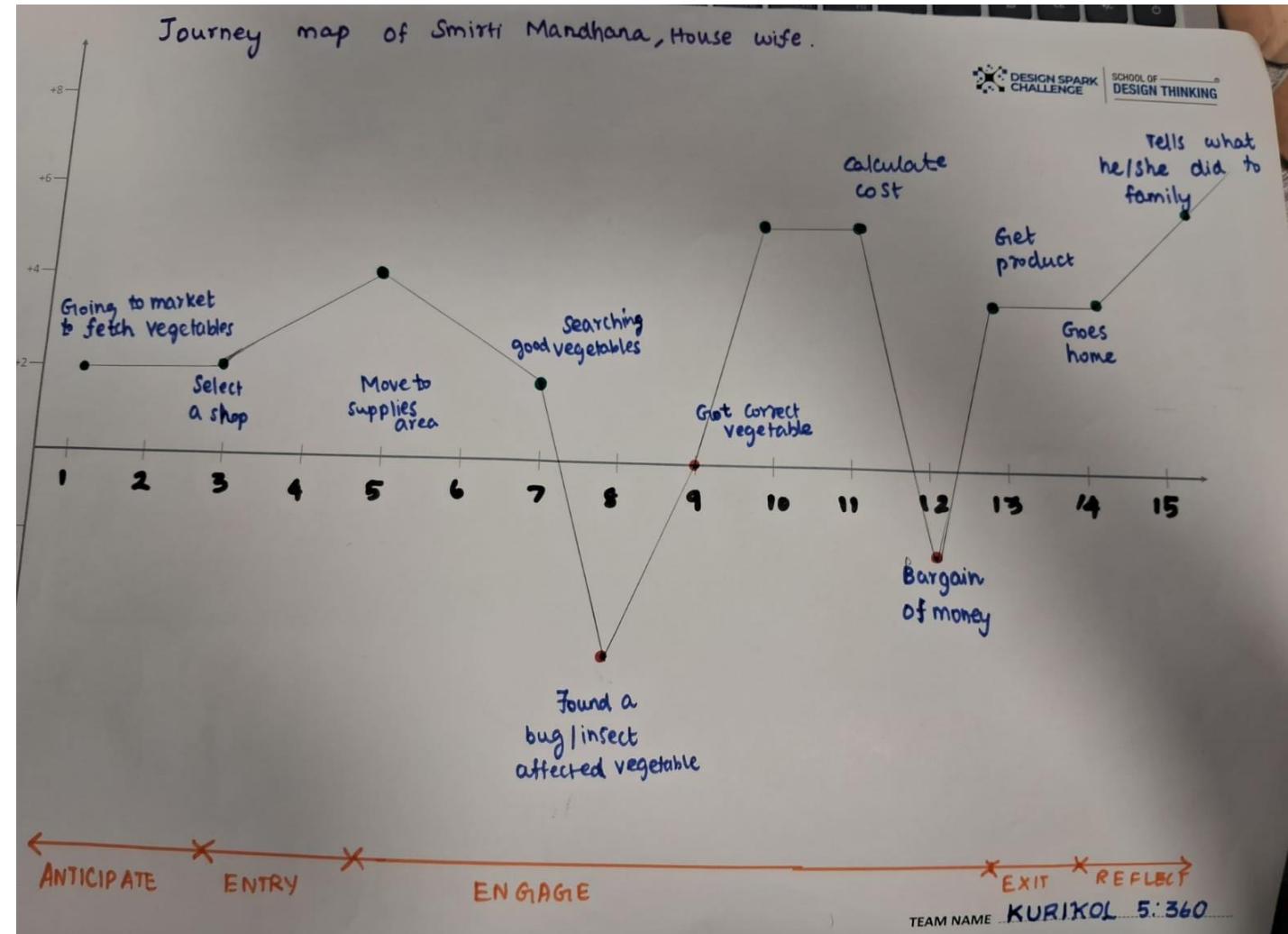
- Presence of harmful preservatives in products.
- Spending too much money in search of quality goods.
- Bargaining as a tool to reduce prices with sellers.

Aspirations

- To maintain a proper health care of family to reduce medical expenses.
- To live longer and teach best practices to family.

ARTEFACTS

Journey Map, Mrs.Smirti Mandhana, House wife(consumer)-Persona-2



ARTEFACTS

A futuristic business man, Persona-3

Mr. John , A futuristic man.
(Product /export/livestock/ Whole sale dealers)

Persona
TEAM NAME
KURIKOL 5:360

Background

- They are generally above middle class or rich people who owns a large business with workers.
- They are Socially active and interact with many people as possible and maintains a large network all over the world.

Family background, education, childhood,

Challenges faced

- Competition among other industries/dealers
- Fluctuating demand in market and seasonal product supply constraints.
- Maintenance cost of industry materials or machinery.
- Salary, holidays and bonus to workers.

Challenges faced by the person in dealing with his/her stakeholders

Motivation

- Expanding business and income of industry
- Support family and friends and invest in Share markets by using income.
- A feeling of providing quality service to people and to expand network to learn.

What motivates the individual

Doubts / Fears

- Lose of markets value for the industry / live stock.
- Animal diseases and maintaining proper surveillance.
- Delayed payments from clients.
- Debt or loan payments & integrity of workers.

Aspirations

- Collaborating with government projects and funds activities.
- Starting or enhancing e-commerce.

What this individual aspires to be / vision

Construct a story while explaining the persona to your peers and document the insights.

John, an export company business man tries his best to serve better to his clients with quality goods and fair prices and maintains good relations with farmers. He tries his best to serve for the society and workers in his industry with bonuses & holidays.

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Mr.John, a futuristic business man (Product/export/livestock/Whole Sale Dealer)

Background

- They are generally above middle class or rich people who owns a large business with workers.
- They are socially active and interact with many people as possible and maintains a large network all over the world.

Challenges faced

- Competition among other industries /dealers .
- Fluctuating demand in market and seasonal product supply constraints.
- Maintenance cost of industry materials or machinery.
- Salary,holidays and bonus to workers.

Story

John, a export company business man tries his best to serve better to his clients with quality goods and fair price and maintains good relation with farmers. He tries his best to serve for the society and workers in his industry with bonuses and holidays and aspires to expand the business to many more countries.

Motivation

- Expanding business and income of industry,
- Support family and friends and invest in share markets by using income.
- A feeling of providing quality service to people.
- To expand the network and learn different strategies.

Doubts/Fears

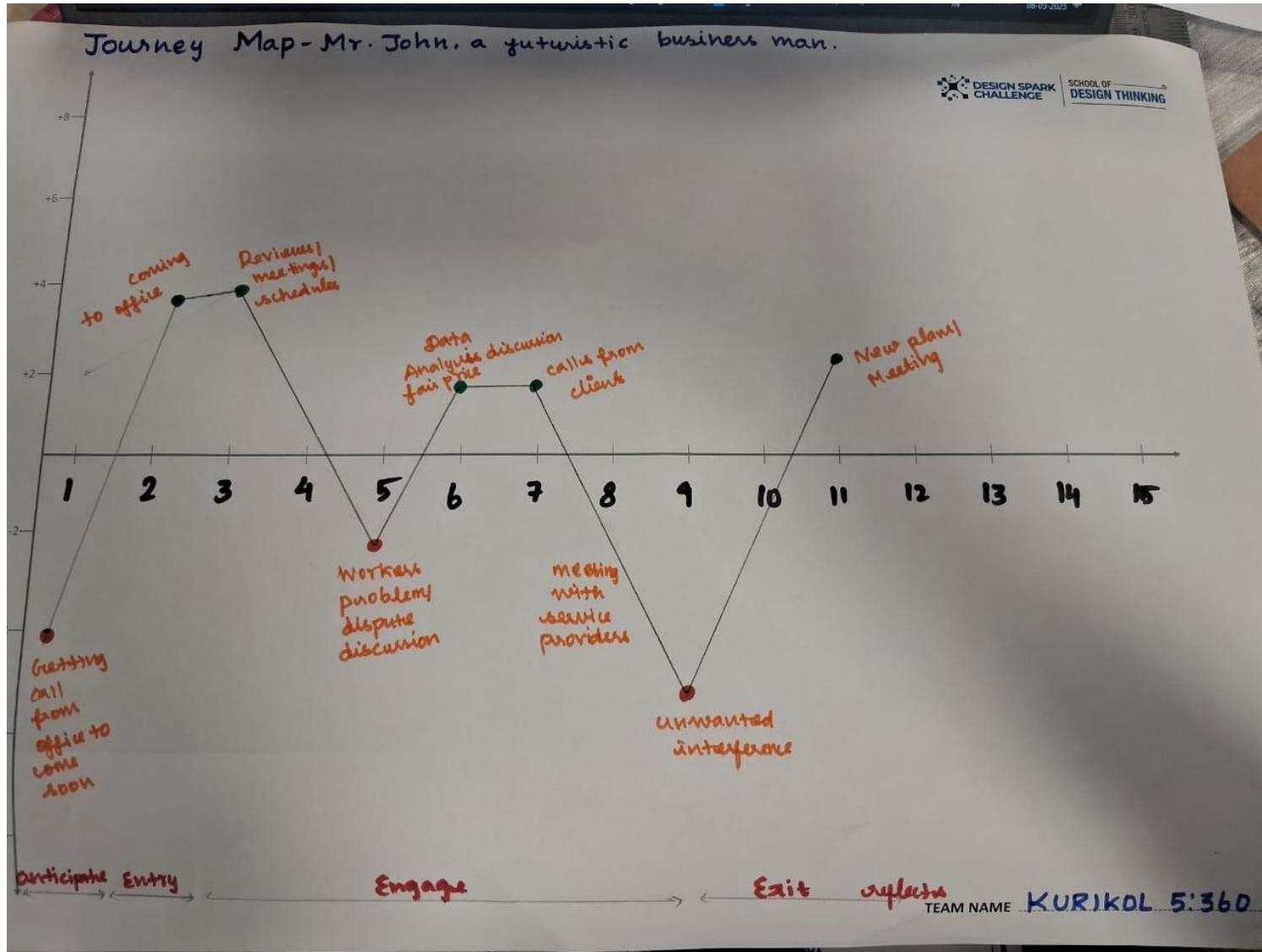
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Aspirations

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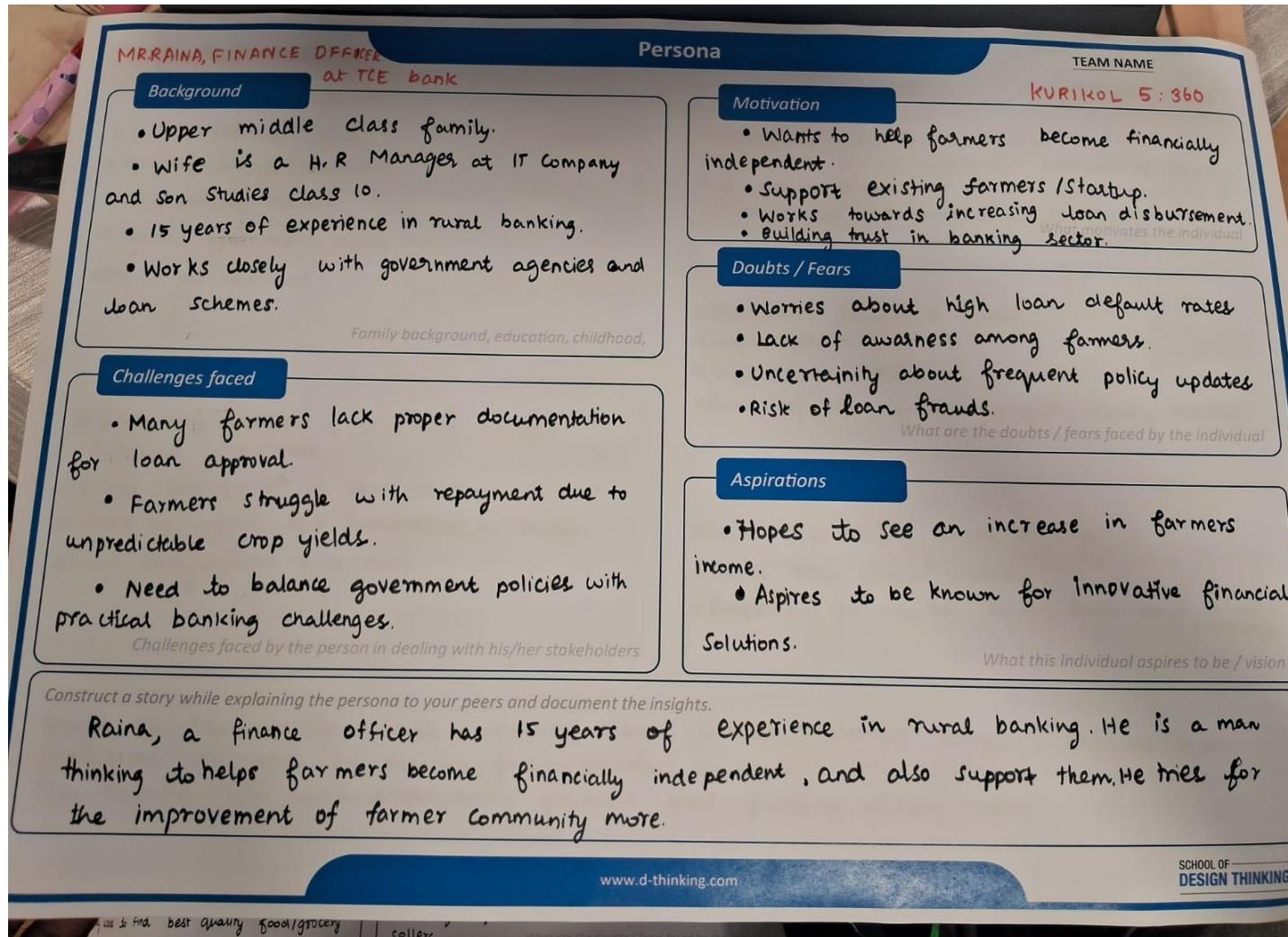
ARTEFACTS

Journey Map, Mr.John, a futuristic business man, Persona-3



ARTEFACTS

Finance Officer-Persona 4





Mr. Raina, Finance officer @ TCE Bank

Background

- Upper middle class family.
- Wife is a H.R Manager at IT Company and son studies at class 10.
- 15 years of experience in rural banking.
- Works closely with government agencies and loan schemes.

Challenges faced

- Many farmers lack proper documentation for loan approval.
- Farmers struggle with repayment due to unpredictable crop yields.
- Need to balance government policies with practical banking challenges.

Story

Raina, a finance officer, has 15 years of experience in rural banking. He is a man thinking to help farmers become financially independent, and also support them. He tries for the improvement of farmer community more.

Motivation

- Wants to help farmers become financially independent.
- Support existing farmers/startup.
- Works towards increasing loan disbursement.
- Building trust in banking sector.

Doubts/Fears

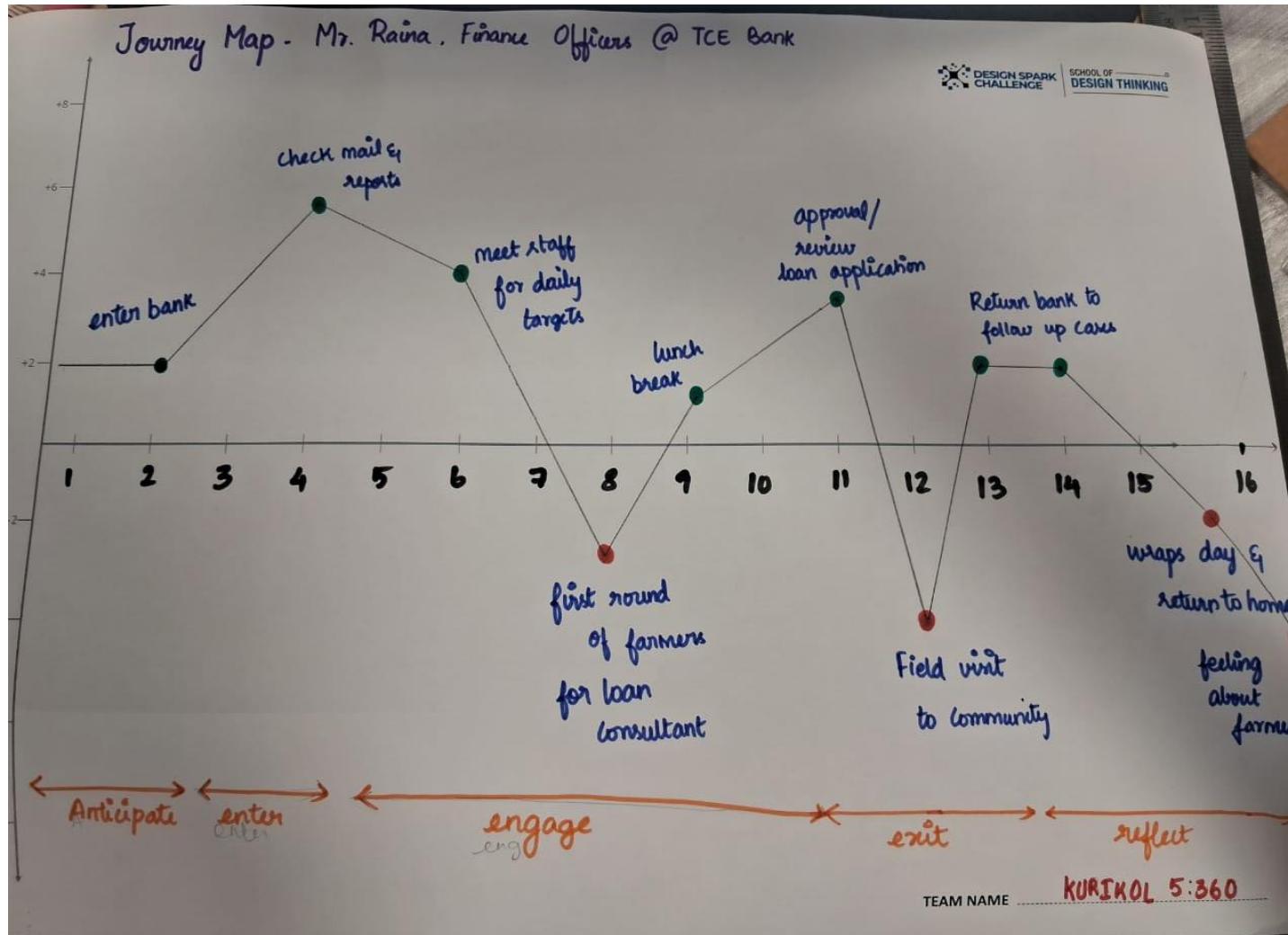
- Worries about high loan default rates.
- Lack of awareness among farmers.
- Uncertainty about frequent policy updates.
- Risk of loan frauds.

Aspirations

- Hopes to see an increase in farmers income.
- Aspires to be known for innovative financial solutions.

ARTEFACTS

Journey Map, Mr.Raina ,Finance Officer-Persona-4



ARTEFACTS

Lorry Owner, Persona-5

Mr. Virat, Lorry Owner @ TCE Transport

Background

- * Lower Middle class
- * May be single / married
- * Uneducated travel
- * Wanders over more areas
- * May have children

Family background, education, childhood,

Challenges faced

- * Language problems if traveling across different countries
- * Large quantities of commodities
- * Need to reach the destination in time.
- * Fuel consumption and cost

Challenges faced by the person in dealing with his/her stakeholders

Persona

Motivation

- * Expanding production necessities
- * Delivered in a reasonable amount of time
- * Increasing profits by reaching new markets
- * Creating job opportunities for local communities

What motivates the individual

Doubts / Fears

- * Products shouldn't spoil
- * Long travels
- * Maintenance costs
- * Risks of theft or loss of goods during transit

What are the doubts / fears faced by the individual

Aspirations

- * More efficiently collect inputs
- * Reach the global market
- * Empowers farmers to invest more and boost outputs

What this individual aspires to be / vision

Construct a story while explaining the persona to your peers and document the insights.

Virat is a hardworking trader venturing across borders, overcoming language barriers and logistical challenges to deliver fresh produce on time. With efficient transport, they expand their reach, empowering farmers and fueling global trade.

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Mr.Virat, Lorry Owner @ TCE Transports

Background

- Lower middle class.
- May be single/married.
- Uneducated travel.
- wander over more areas.
- May have children.

Challenges faced

- Language problem if travelling across different countries.
- Large quantities of commodities
- Need to reach the destination in time.
- Distance travelled and road condition
- Fuel consumption and cost

Story

Virat is hardworking trader ventures across borders, overcoming language barriers and logistical challenges to deliver fresh produce on time. With efficient transport, they expand their reach, empowering farmers and fueling global trade.

Motivation

- Expanding production necessities
- Delivered in a reasonable amount of time.
- Increasing profits by reaching new markets.
- Creating job opportunities for local communities.

Doubts/Fears

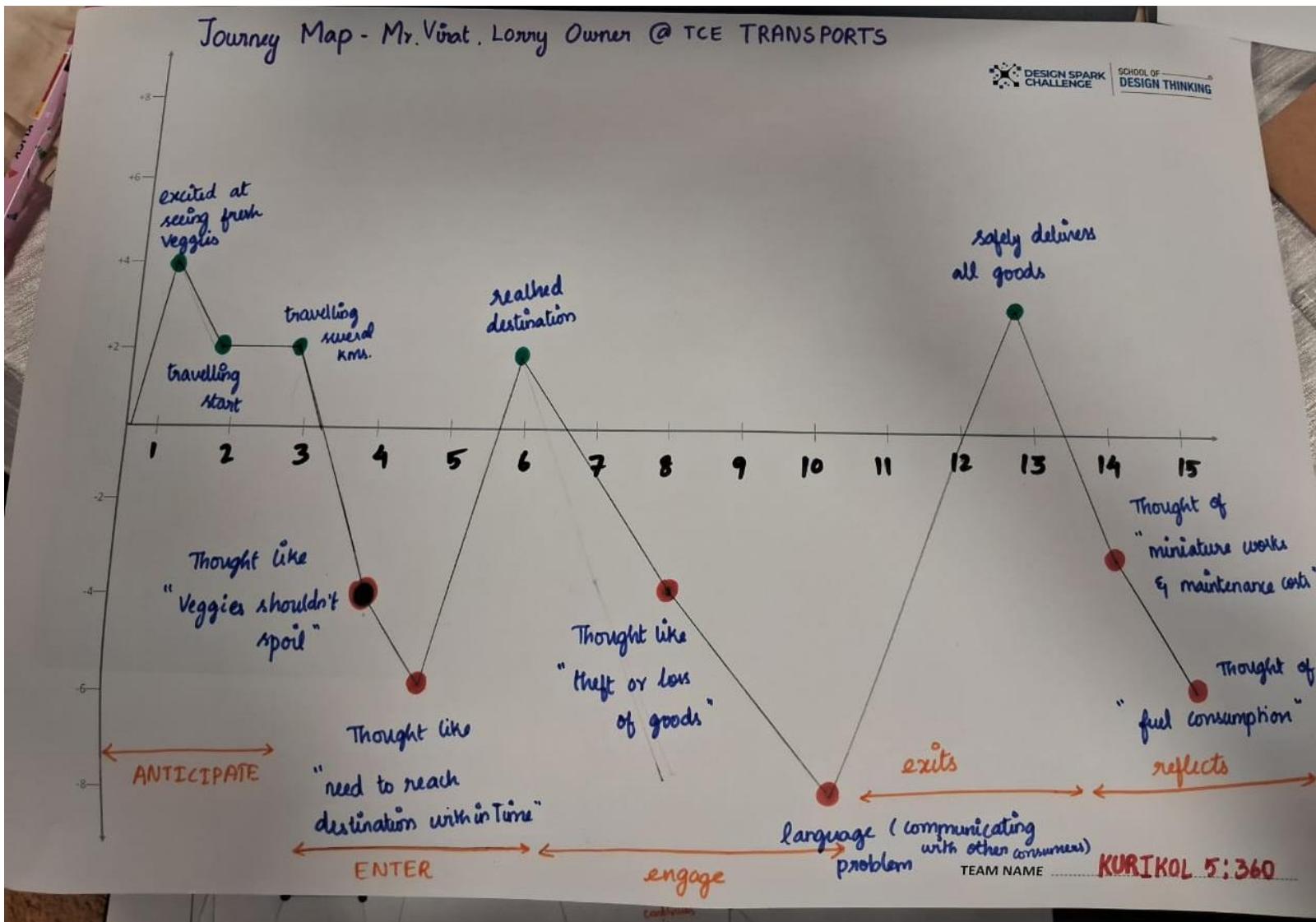
- Products shouldn't spoil.
- Safe travels.
- Maintenance costs.
- Risk of theft or loss of goods during transit.

Aspirations

- More efficiently collect inputs.
- Reach the global market.
- Empowers farmers to invest more and boosts output.

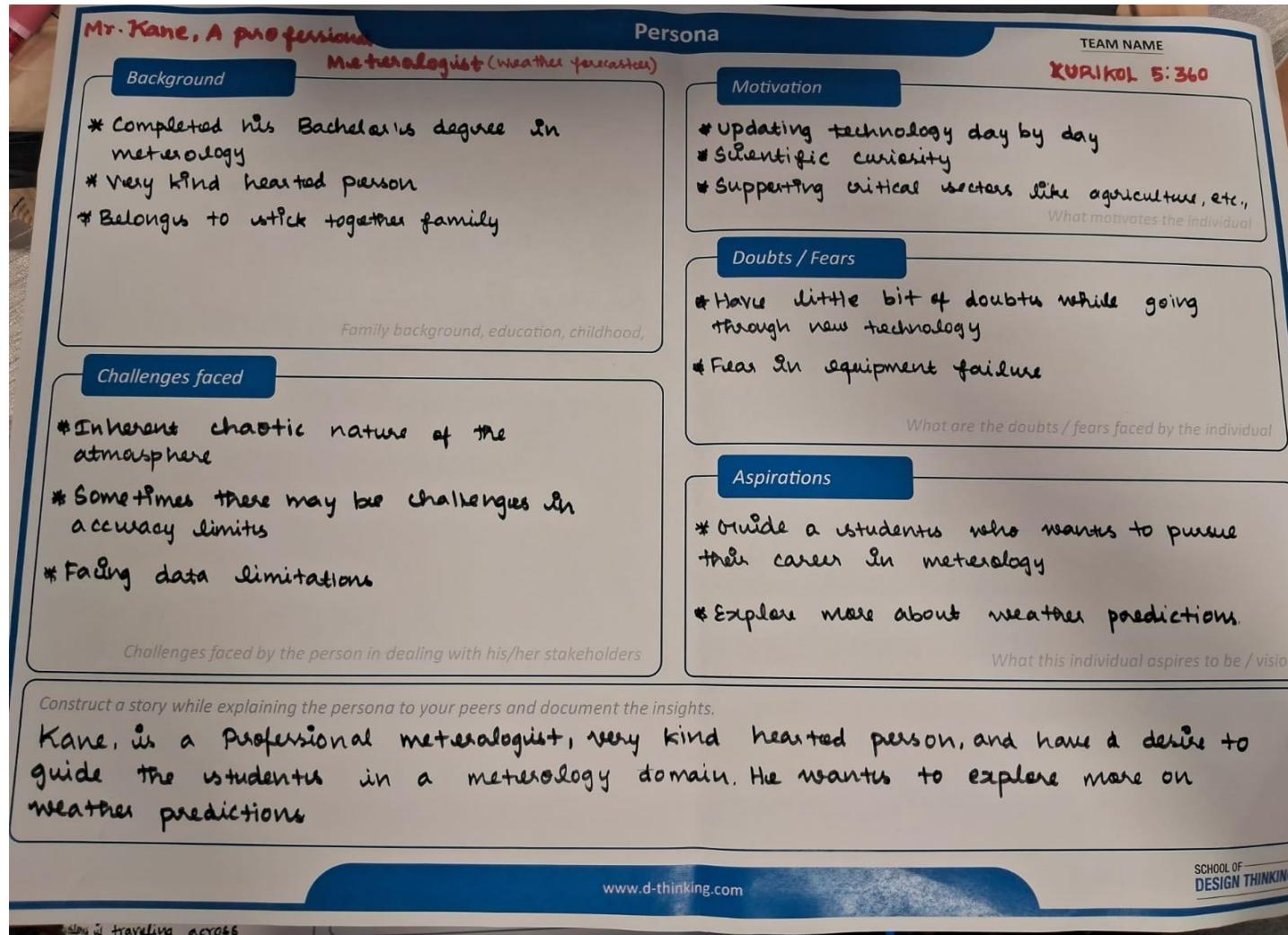
ARTEFACTS

Journey Map, Mr.Virat, Lorry Owner, Persona-5



ARTEFACTS

Weather forecaster, Persona-6





Mr.Kane, A professional Meteorologist,weather forecaster

Background

- Completed his Bachelor's degree in meteorology
- Very kind hearted person
- Belongs to stick together family

Motivation

- Updating technology day by day
- Scientific curiosity
- Supporting critical sectors like agriculture, etc.,

Doubts/Fears

- Have little bit of doubts while going through new technology
- Fear in equipment failure
- Weather systems are chaotic sometimes

Aspirations

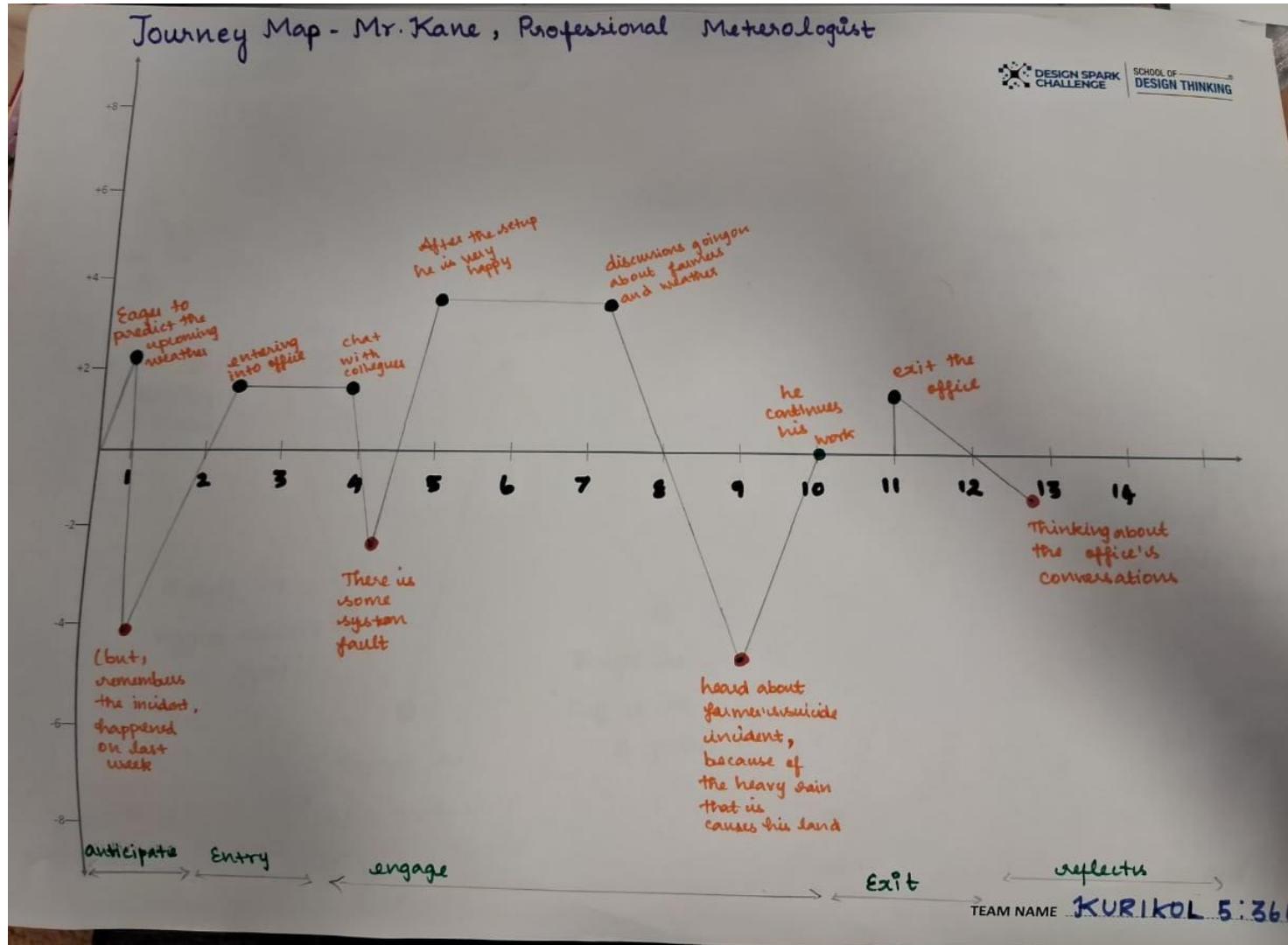
- Guide a students who wants to pursue their career in meteorology
- Explore more about weather predictions

Story

A Kane, is a professional meteorologist, very kind hearted person and have a desire to guide the students in a meteorology domain. He wants to explore more on weather predictions.

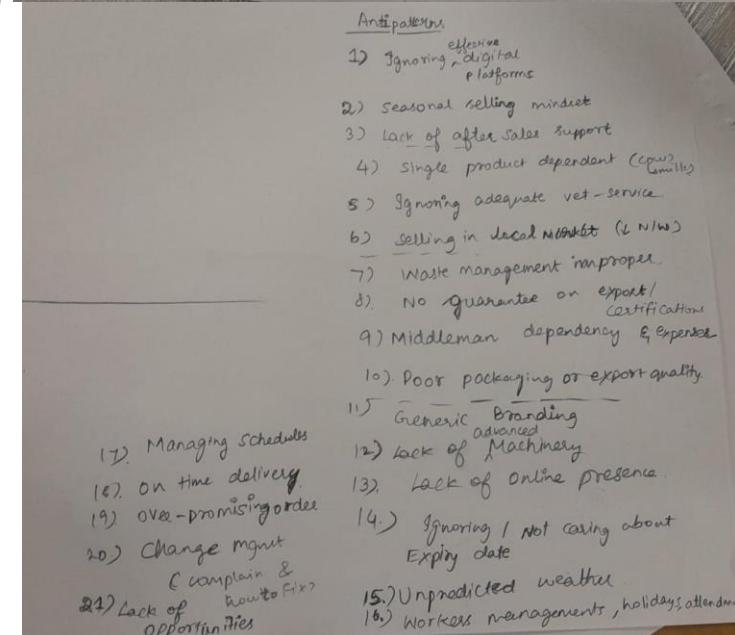
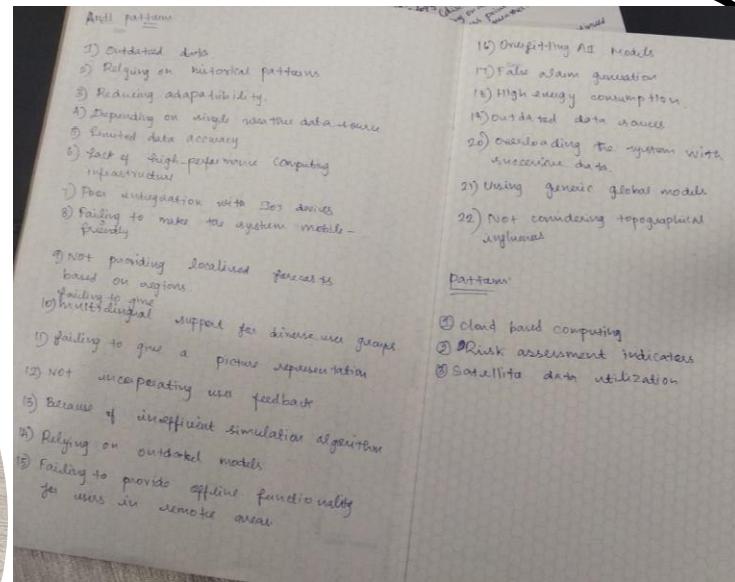
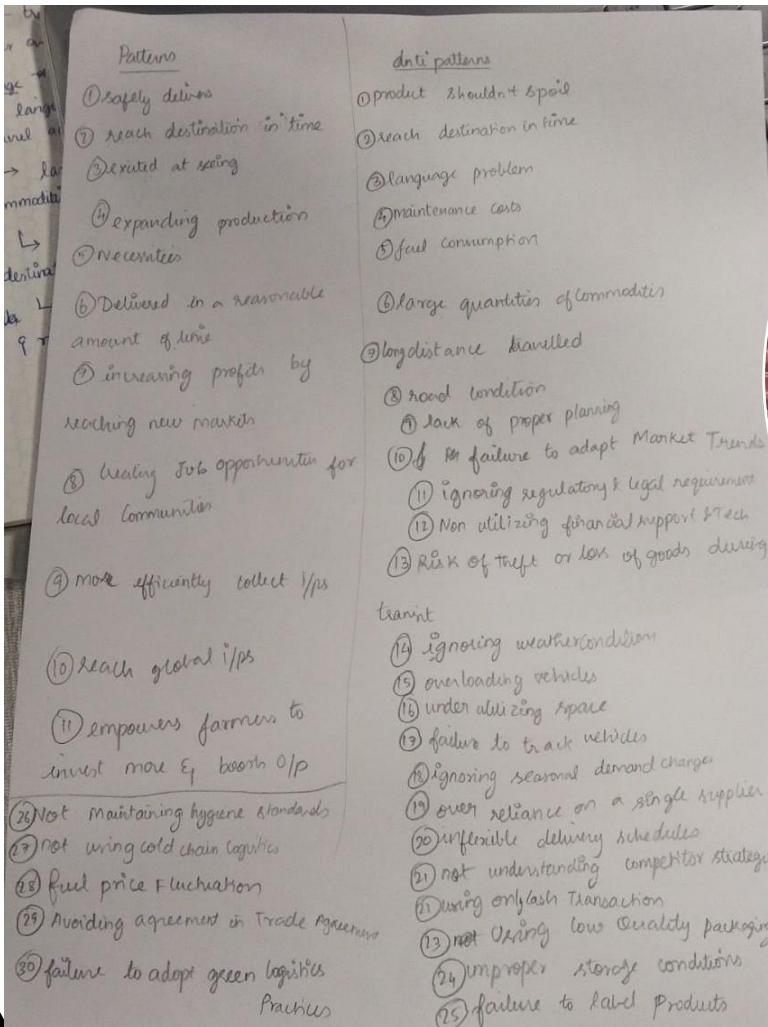
ARTEFACTS

Journey Map, Mr.Kane, weather forecaster, Persona-6



ARTEFACTS

ANTIPATTERNS



ANTIPATTERNS

Mr. Dhoni, Farmer

1. Ignoring soil testing.
2. **Growing without market research.**
3. **Water intensive crops in dry areas.**
4. Relying on subsided areas.
5. **Ignoring climate.**
6. Focusing only on cash crops.
7. Overuse chemical fertilizers.
8. Excessive irrigation.
9. Poor drainage.
10. Burning crop residue.
11. **Selling crops without checking prices.**
12. Poor grain storage.
13. **Selling only in local markets.**
14. Ignoring crop insurance.
15. **No maintenance of financial records.**
16. Ignoring government subsidies.
17. **Resisting digital payments.**
18. Not using drip irrigation.
19. **Ignoring weather forecast.**
20. **Ignoring natural fertilizers.**

Ms. Smriti, Consumer

21. **Buying unplanned items.**
22. Buying at one shop only.
23. Satisfying with one shop itself.
24. Ignoring local vendors.
25. Budget unplanned.
26. Shopping without list.
27. **Using plastic bags to buy groceries.**
28. Not caring about freshness.
29. **Shopping in rush hours.**
30. Ignoring expiry date.
31. **Not asking for bill.**
32. Not using e-apps.
33. **Buying unwanted product.**
34. Falling for sales trick.
35. Blind trust.
36. Preferring packed items.
37. Ignoring return policies.
38. Buying frozen foods.
39. Buying with friend's recommendation.

ANTIPATTERNS

Mr. John, Businessperson

- 40. Ignoring effective digital platforms.
- 41. Seasonal selling mindset.
- 42. Lack of after sales support.
- 43. Single product dependent.**
- 44. Ignoring adequate Veterinary service.
- 45. Selling in local market.
- 46. Waste management.
- 47. No guarantee on exports/certifications.
- 48. Middleman dependency and expenses.**
- 49. Generic branding.
- 50. Lack of advanced machinery.
- 51. Lack of online presence.**
- 52. Unpredicted weather.**
- 53. Workers managements and Managing schedules**
- 54. On time delivery.**
- 55. Lack of opportunity for expanding Network.

Mr. Raina, Finance Officer

- 56. Over reliance on collateral-based lending.
- 57. Ignoring farmer education on loan.
- 58. Delayed loan disbursement.
- 59. Poor risk assessment.
- 60. Loan default management.**
- 61. Under-utilization of government schemes.**
- 62. Focusing only on large farmers.**
- 63. Ignoring technology adaption.
- 64. Lack of post loan monitoring.**
- 65. Rigid loan repayment structures.**
- 66. Neglecting women and young farmers.**
- 67. Lack of alternative financing option.
- 68. Ignoring credit history of farmers.**
- 69. No emergency loan support.**
- 70. Weak collaboration with Agri tech start-ups.
- 71. Lack of farmer centric customer support.**
- 72. Poor co-ordination with local co-operatives.
- 73. High processing fees and hidden charges.
- 74. No focus on sustainability.

ANTIPATTERNS

Mr. Virat lorry owner:

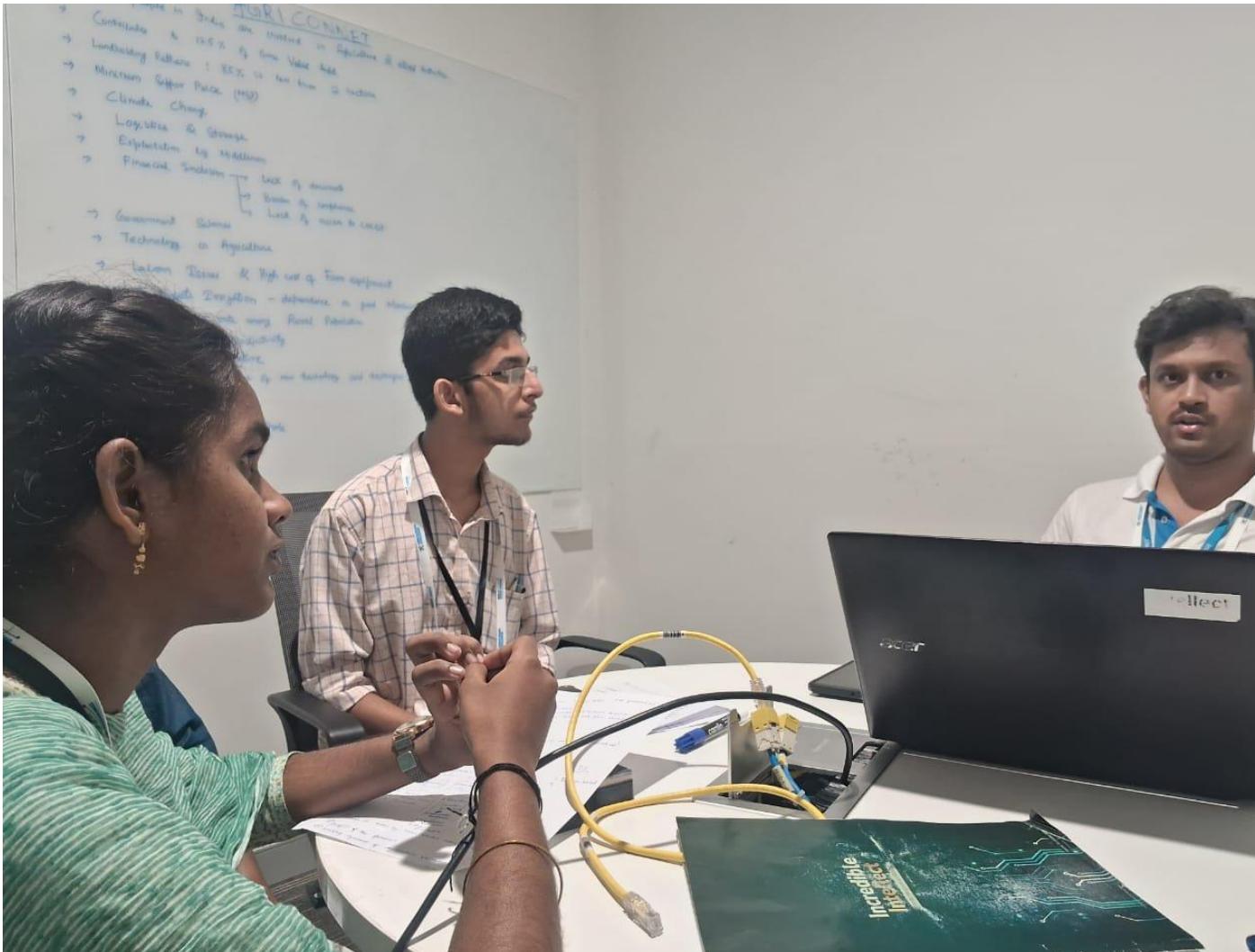
- 75. Product shouldn't spoil.
- 76. **Reach destination in time.**
- 77. Language problem.
- 78. **Maintenance costs.**
- 79. **Fuel consumption.**
- 80. Large quantities of commodities.
- 81. **Long distance travelled.**
- 82. Worst road condition.
- 83. Lack of proper planning failure to adapt market trends
- 84. Ignoring regulatory and legal requirement.
- 85. Risk of thefts or loss of goods.
- 86. Overloading vehicles.
- 87. **Ignoring seasonal demand changes.**
- 88. Inflexible delivery schedules.
- 89. Not understanding competitors strategies.
- 90. Using only cash transaction.
- 91. Using low quality packaging.
- 92. Failure to label products.
- 93. **Improper storage conditions.**
- 94. Failure to adopt green logistics practices.
- 95. **Avoiding agreement in trade.**
- 96. Not maintaining hygiene standards.
- 97. Not using cold chain logistics.

Mr. Kane, Weather Forecaster

- 98. **Outdated data.**
- 99. **Relying on historical patterns.**
- 100. Reducing adaptability.
- 101. Depending on single weather data source.
- 102. **Limited data accuracy.**
- 103. Lack of high-performance computing.
- 104. Poor integration with IOT devices.
- 105. **Failing to make the system mobile friendly.**
- 106. **Not providing localized forecasts.**
- 107. No multilingual supports for diverse user groups.
- 108. Failing to give a picture representation.
- 109. Not incorporating user feedback.
- 110. Inefficient simulation algorithm.
- 111. **Relying on outdated ai models.**
- 112. No offline functionality.
- 113. Overfitting ai models false alarm generation.
- 114. High energy consumption.
- 115. Not considering topographical influences.
- 116. Using generic global models.
- 117. Overloading system with successive data.

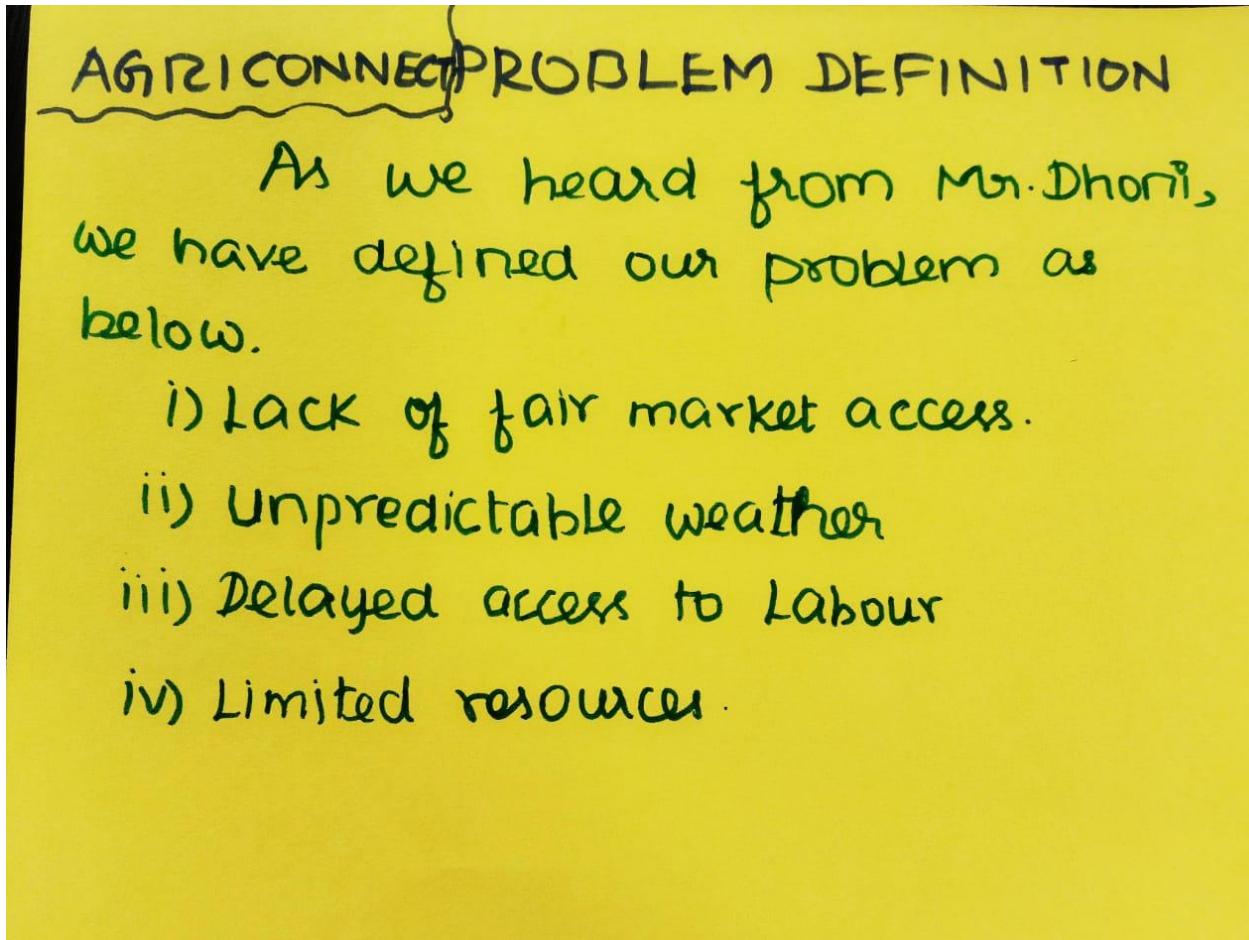
ARTEFACTS

Discussion with the Project sponsor-Mr. Lilesh Barik, Intellect Design Arena



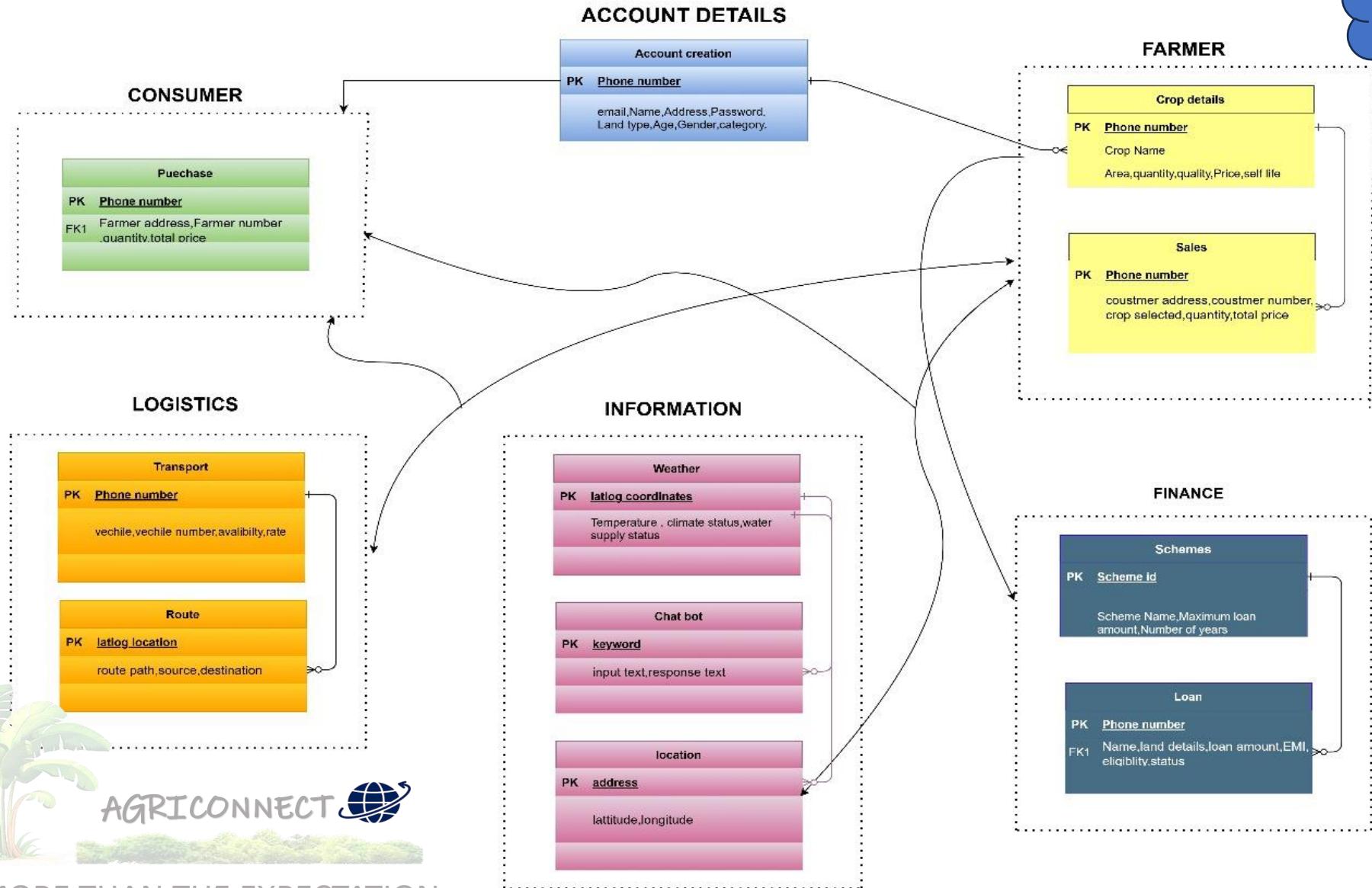
Less is more

Define



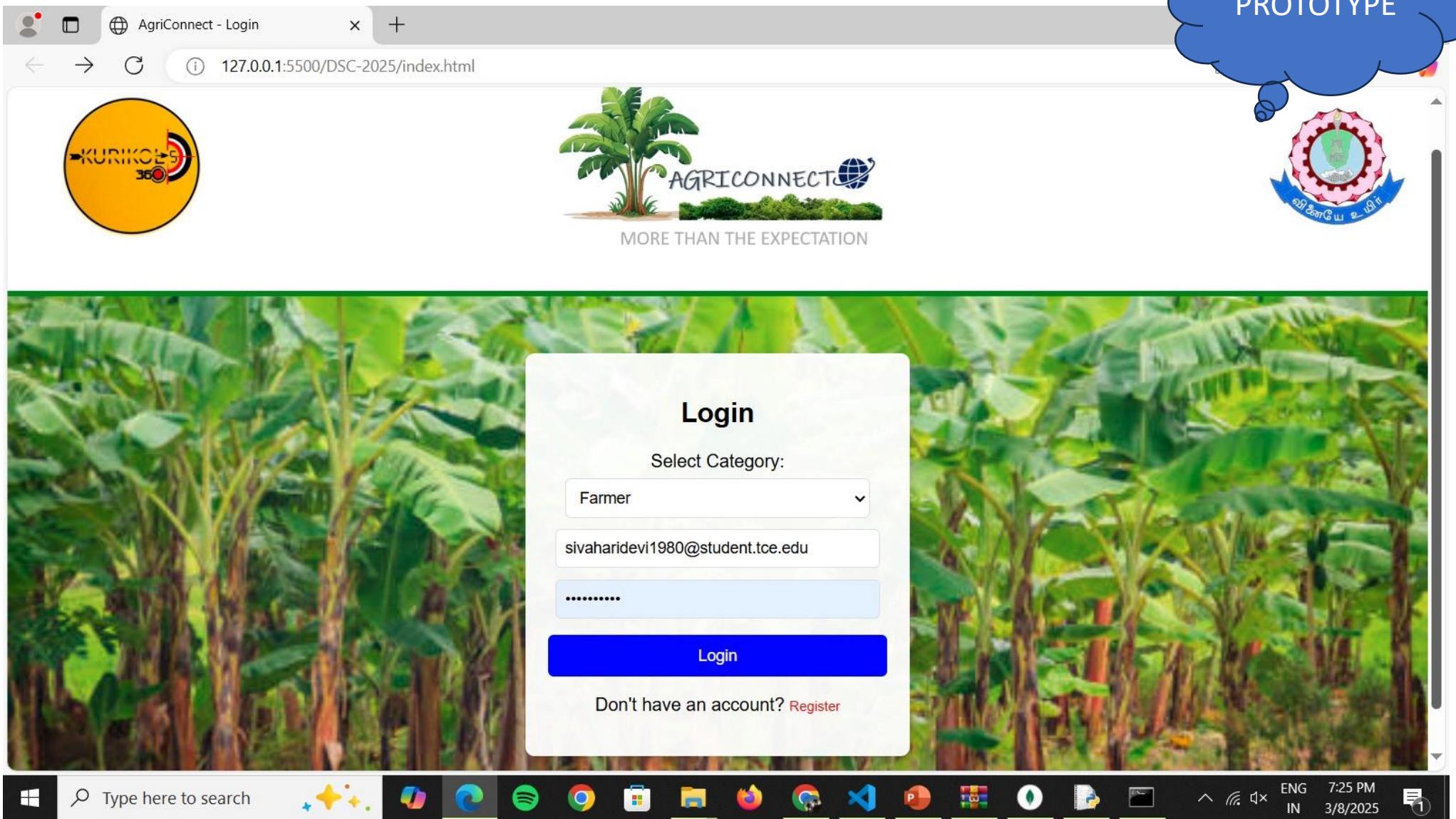
ARCHITECTURE DESIGN

IDEATE



MORE THAN THE EXPECTATION

ARCHITECTURE DESIGN



DESIGN SPARK CHALLENGE '25 (Where Talent meets Opportunity)

AI Tools and prompts used

CHAT BOT API's:

1. Agromonitor API - for providing approximate soil properties.
2. Weather Monitor API- for realtime weather prediction.
3. AI prompts- Integration of API to backend.
4. AI prompt- Various steps in calling and validating API's.

Number of API's
Used: 8 +3

Weather Monitor API :

5. AI/ML & API Websites used Open WeatherMap API (for fetching weather forecasts)..
6. FastAPI (Python Web Framework).
7. Logistic- Used to create the backend API for weather prediction.Uvicorn (ASGI Server for FastAPI).
8. Openstreetmap-Shortest route Calculation.

AI TOOLS

1. Agromonitor API.
2. OpenWeatherMap API.
3. Ast API (Python Web Framework)
- 4.. OpenAI GPT (LLM)

Functionality

- ✓ **AI Chatbot** – Answers farming queries using **GPT/Rasa AI**.
- ✓ **Weather Forecast** – Uses **OpenWeatherMap API** for real-time updates.
- ✓ **Loan & Scheme Info** – Fetches data from **Govt Agri APIs**.
- ✓ **Route Optimization** – Uses **OpenStreetMap API** for shortest path.

Scalability

- ⚡ **Backend** – Upgrade to **FastAPI + MongoDB + FLASK + REQUEST**.
- ⚡ **Frontend** – Use **React.js and HTML + CSS**.

Viability

- 💰 **Freemium Model** – Free basic features, premium for **advanced analytics & expert advice**.
- 💰 **Partnerships** – Collaborate with **Govt (NABARD, ICAR), Agri startups**.
- 💰 **Ads & Affiliates** – Monetize via **Google AdSense & agri-product partnerships**.

AGRICONNECT- A new world to the sponsor

Brand Visibility: Enhances the sponsor's presence in the **agriculture and technology** sector.

Market Expansion: Creates a **direct link to the farming community**, fostering long-term engagement.

Investment Opportunities: Encourages **stakeholders and financial institutions** to invest in agricultural technology.

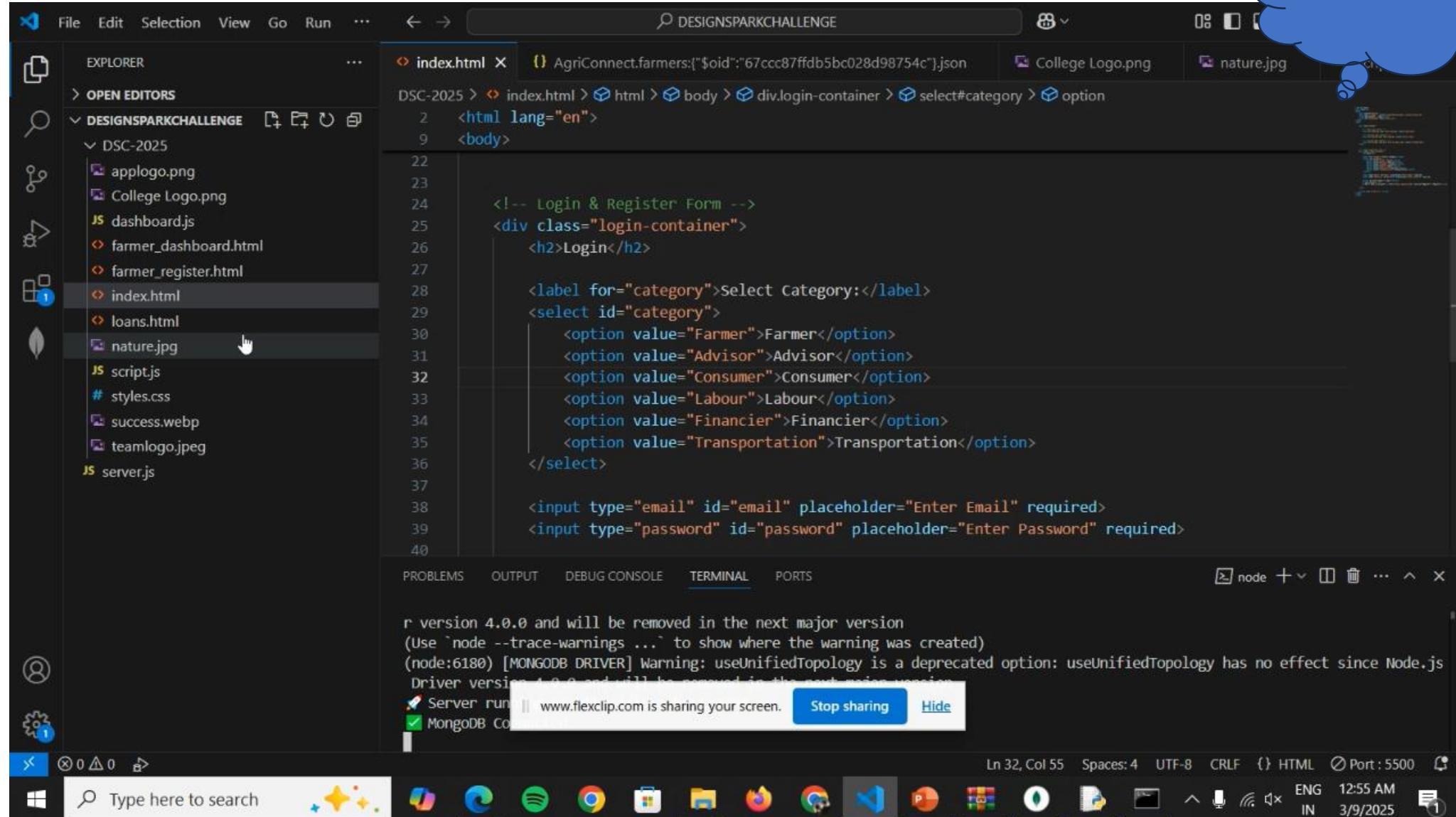
Loan Facilitation: Increases the reach of **sponsor-backed loan schemes** to rural farmers.

Farmer Database:Builds a **data-driven ecosystem** for better policy-making and service improvement.

Decision-Making Support: Empowers sponsors with **AI-powered recommendations** for policy and investment decisions.

USER JOURNEY-Account creation

TESTING



```
<html lang="en">
<body>
    <!-- Login & Register Form -->
    <div class="login-container">
        <h2>Login</h2>

        <label for="category">Select Category:</label>
        <select id="category">
            <option value="Farmer">Farmer</option>
            <option value="Advisor">Advisor</option>
            <option value="Consumer">Consumer</option>
            <option value="Labour">Labour</option>
            <option value="Financier">Financier</option>
            <option value="Transportation">Transportation</option>
        </select>

        <input type="email" id="email" placeholder="Enter Email" required>
        <input type="password" id="password" placeholder="Enter Password" required>
    </div>

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

warn: `process.versions` is deprecated. It will be removed in Node.js r version 4.0.0 and will be removed in the next major version
(Use `node --trace-warnings ...` to show where the warning was created)
(node:6180) [MONGODB DRIVER] Warning: useUnifiedTopology is a deprecated option: useUnifiedTopology has no effect since Node.js
Driver version 4.0.0 and will be removed in the next major version

Server run at: www.flexclip.com is sharing your screen. Stop sharing Hide

Type here to search

Ln 32, Col 55 Spaces: 4 UTF-8 CRLF {} HTML ⚡ Port : 5500

43

USER JOURNEY-Farmer's-weather information

```
File Edit Selection View Go Run ... ← → 🔍 DESIGNSPARKCHALLENGE DSC-2025 > main.py > ...
script.js AgriConnect.farmers:{"$oid": "67ccce2afdb5bc028d987558"}json farmer_dashboard.html
EXPLORER OPEN EDITORS DESIGNSPARKCHALLENGE DSC-2025
> __pycache__
api.py
app.py
applogo.png
apply.js
chatbot_index.html
College Logo.png
dashboard.js
farmer_dashboard.html
farmer_register.html
gov_loans.html
gov_schemes.html
index.html
main.py
nature.jpg
polygon.py
requirement.txt
script.js
shortest_distance_index.html.html
styles.css
success.webp
teamlogo.jpeg
weather_index.html
loanselection.js
23 def get_weather():
53     except requests.exceptions.RequestException as e:
54         print(f"❌ Error fetching weather data: {e}") # Debug: Network error
55         return {"error": f"Failed to fetch weather data: {str(e)}"}
56
57     # Run the FastAPI server with IP logging
58     if __name__ == "__main__":
59         host_ip = "127.0.0.1"
60         port = 8000
61         print(f"🚀 FastAPI server running at: http://{host_ip}:{port}/weather")
62         import os
63         os.system(f"uvicorn main:app --host {host_ip} --port {port} --reload")
64
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\dsc\DESIGNSPARKCHALLENGE> node server.js
(node:15836) [MONGODB DRIVER] Warning: useNewUrlParser is a deprecated option: useNewUrlParser has no effect since version 4.0.0 and will be removed in the next major version
(node:15836) [MONGODB DRIVER] Warning: useUnifiedTopology is a deprecated option: useUnifiedTopology has no effect since Node.js Driver version 4.0.0 and will be removed in the next major version
Server run
MongoDB
screen-recorder.com is sharing your screen. Stop sharing Hide
Spaces: 4 UTF-8 CRLF Python 3.13.2 64-bit Port : 5500
Type here to search
Windows Start button Taskbar icons System tray
44
```

USER JOURNEY-Consumer-Purchase

Available Products



Organic Rice

\$20

Available

[Order](#)



Fresh Tomatoes

\$5

Out of Stock

[Out of Stock](#)



Farm Honey

\$15

Available

[Order](#)

USER JOURNEY-Farmer-Information-Chat Bot

```
File Edit Selection View Go Run ... ⏪ ⏩ 🔍 DESIGNSPARKCHALLENGE DSC-2025 > app.py > ...
25 def chatbot():
33     else:
34         return jsonify({
35             "reply": f"Soil Update:\nTemperature: {soil_info['Soil Temperature']}\nMoisture: {soil_info['Soil Moisture']}"
36         })
37     else:
38         return jsonify({"reply": "I'm here to help with agriculture-related queries! Try asking about soil moisture or temperature."})
39
40 if __name__ == '__main__':
41     app.run(debug=True)
42 }
```

Incoming Request Body:

```
email: 'sivaharidevii1980@student.tce.edu',
password: 'hellovarsha',
category: 'Farmer'
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

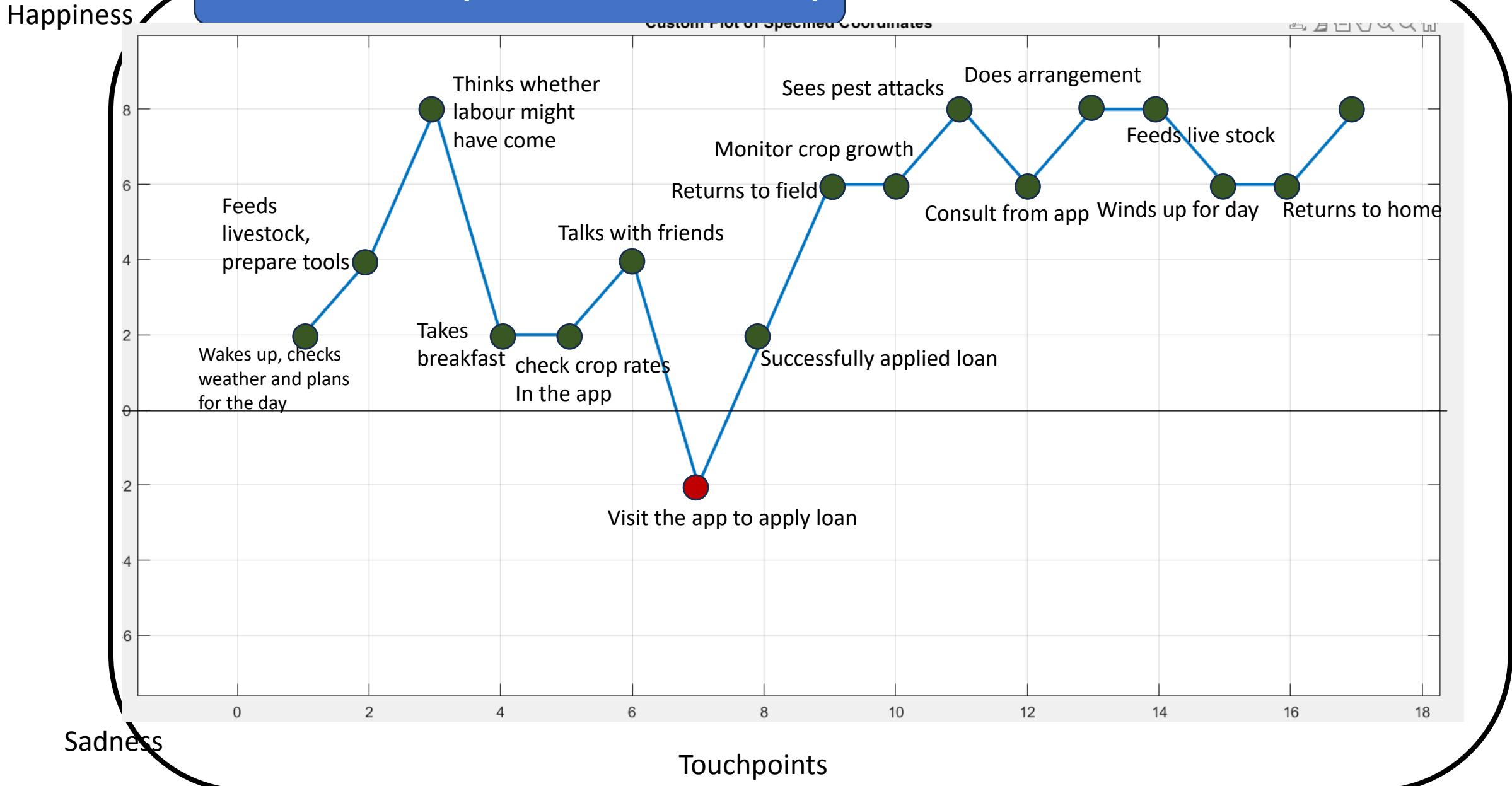
Ln 42, Col 1 Spaces: 4 UTF-8 CRLF {} Python 3.13.2 64-bit Port : 5500

Type here to search

Windows Start button

46

JOURNEY MAP(After AGRICONNECT)



KEY METRICS

Daily Active Users :

Number of users interacting with the chatbot, loans, schemes, or weather updates daily.

Weather Forecast Accuracy:

Measure of how accurate the weather predictions are compared to real conditions.

Server Uptime:

Percentage of time the app is running without downtime.

Bug Reports & Fix Rate:

Number of reported bugs and the speed at which they are resolved.

SUPPORT REQUESTED

Technology Support :

Sponsorship for software licenses, cloud services, and AI/ML tools required for chatbot and front-end development.

Financial Support:

Funding through internship to work on the **agriconnect** problem to refine the solution made during this DSC'25.

Operational Support :

Introductions to **potential investors, industry professionals, and mentors** who can guide the project towards real-world deployment.

OUR PERSONAL LEARNING

Proper design thinking approach, able to identify the stakeholders, Implementation technique should be improved

Understood the importance of **teamwork and equal work distribution**, ensuring efficiency. Should improve software skills.

The Design Spark Challenge introduced me to tools like the Persona-PI Matrix, which didn't just shape my project approach but also changed how I tackle problems in everyday life. I thrive on adaptability and sharp analytical thinking, breaking down challenges with ease.

Learned **design thinking techniques**, explored new ideas, and got motivated by other teams.

Gained experience in **solving problems through schematic thinking**, improving structured problem-solving skills.



THANK YOU