
ESTIMATION OF CROP YIELD
USING DATA ANALYTICS

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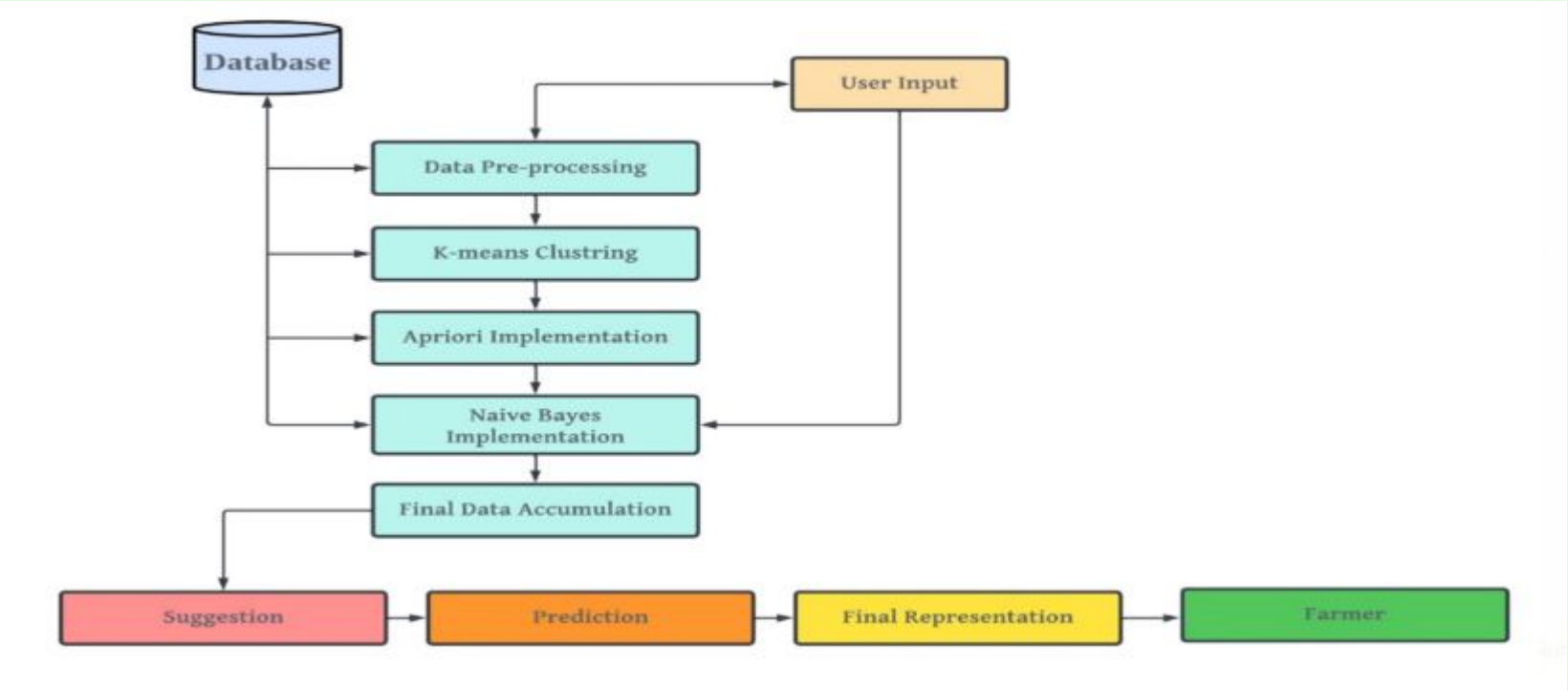
PROBLEM STATEMENT

- To create a dashboard and perform analysis of crop production in India using IBM Cognos analytics platform.
- Crop production in India is one of the most important sources of income and India is one of the top countries to produce crops.
- As per this project we will be analyzing some important visualization, creating a dashboard and by going through these we will get most of the insights of Crop production in India.

PROPOSED SOLUTION

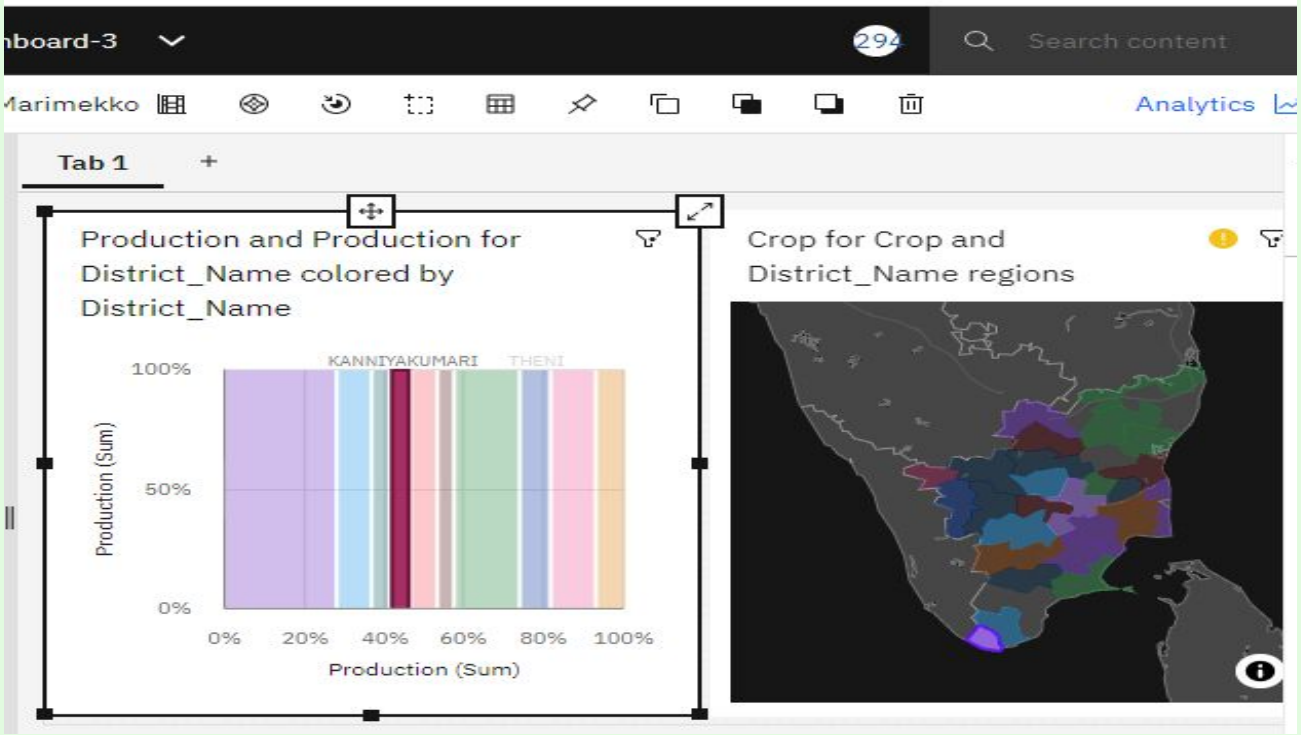
- Idea / Solution description
- Novelty / Uniqueness
- Social Impact / Customer Satisfaction
- Business Model (Revenue Model)
- Scalability of the Solution

TECHNICAL ARCHITECTURE

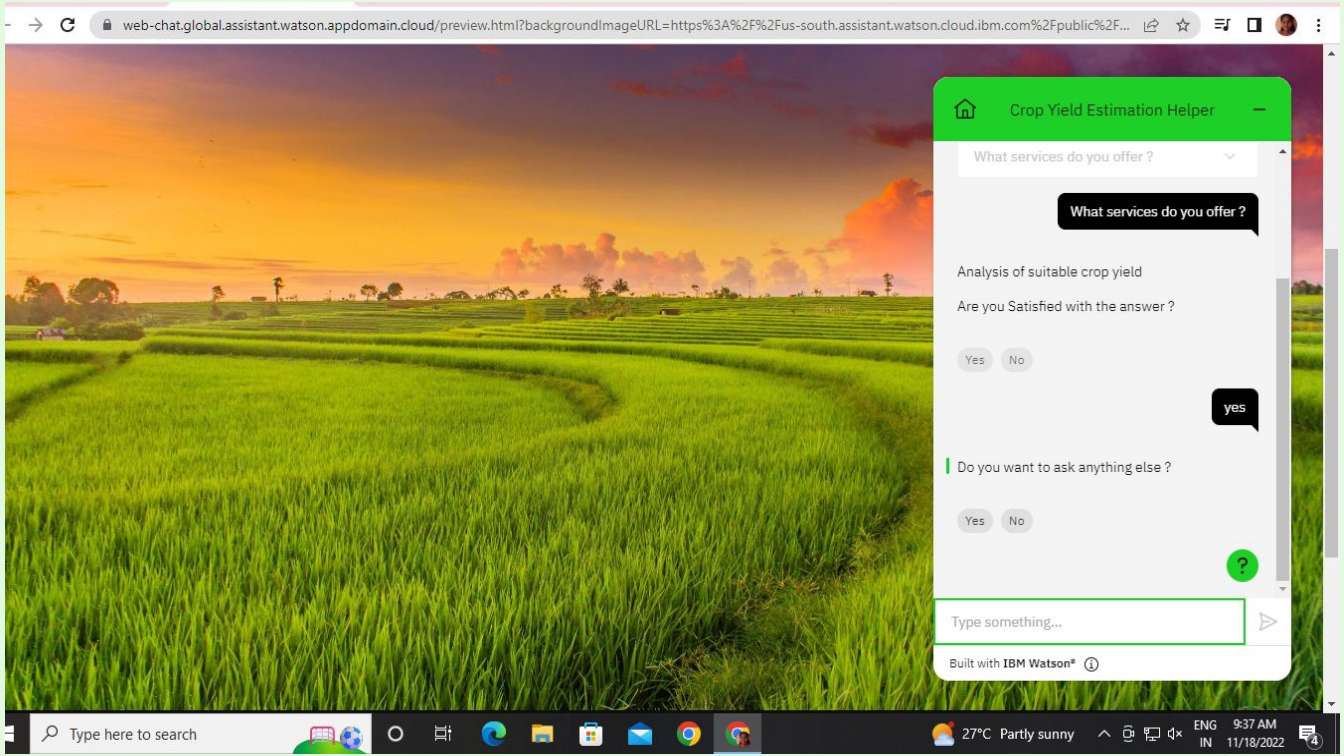


FEATURES

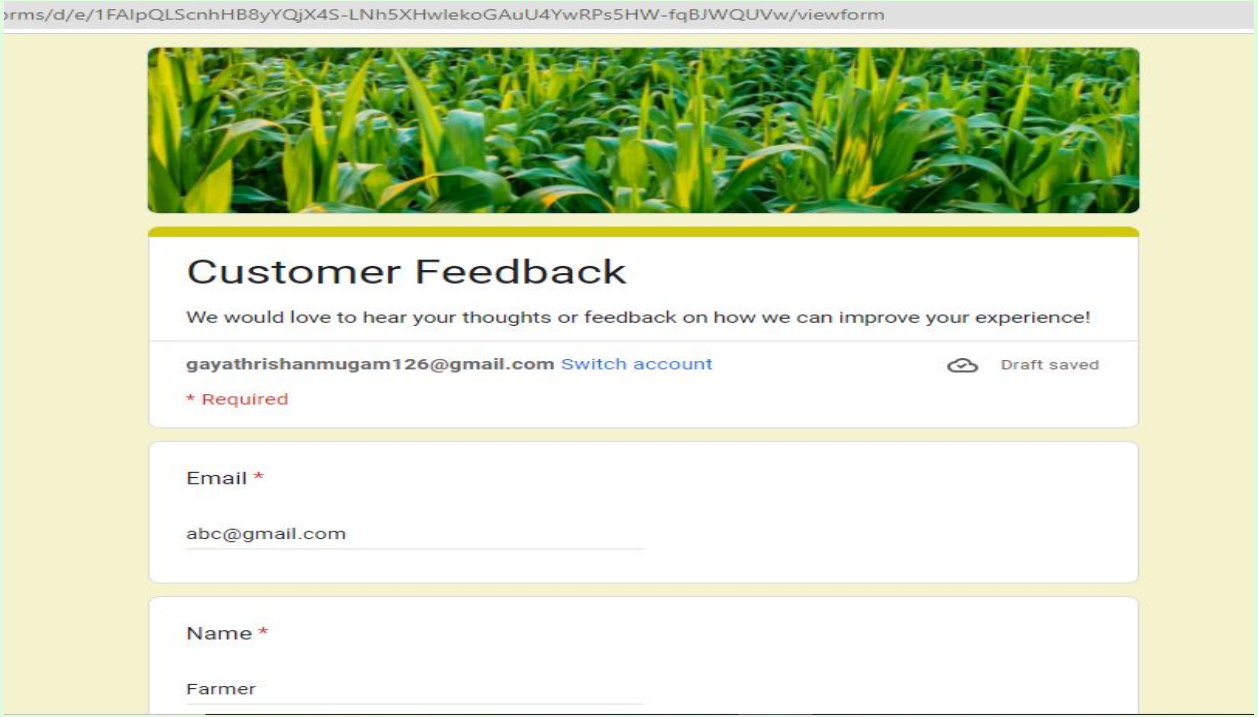
1.Responsive dashboard



2.Chatbot


web-chat.global.assistant.watson.appdomain.cloud/preview.html?backgroundImageURL=https%3A%2F%2Fus-south.assistant.watson.cloud.ibm.com%2Fpublic%2F...
Crop Yield Estimation Helper
What services do you offer ?
What services do you offer ?
Analysis of suitable crop yield
Are you Satisfied with the answer ?
Yes
No
yes
Do you want to ask anything else ?
Yes
No
Type something...
Built with IBM Watson
Type here to search
27°C Partly sunny
ENG
IN
9:37 AM
11/18/2022

3.Customer feedback

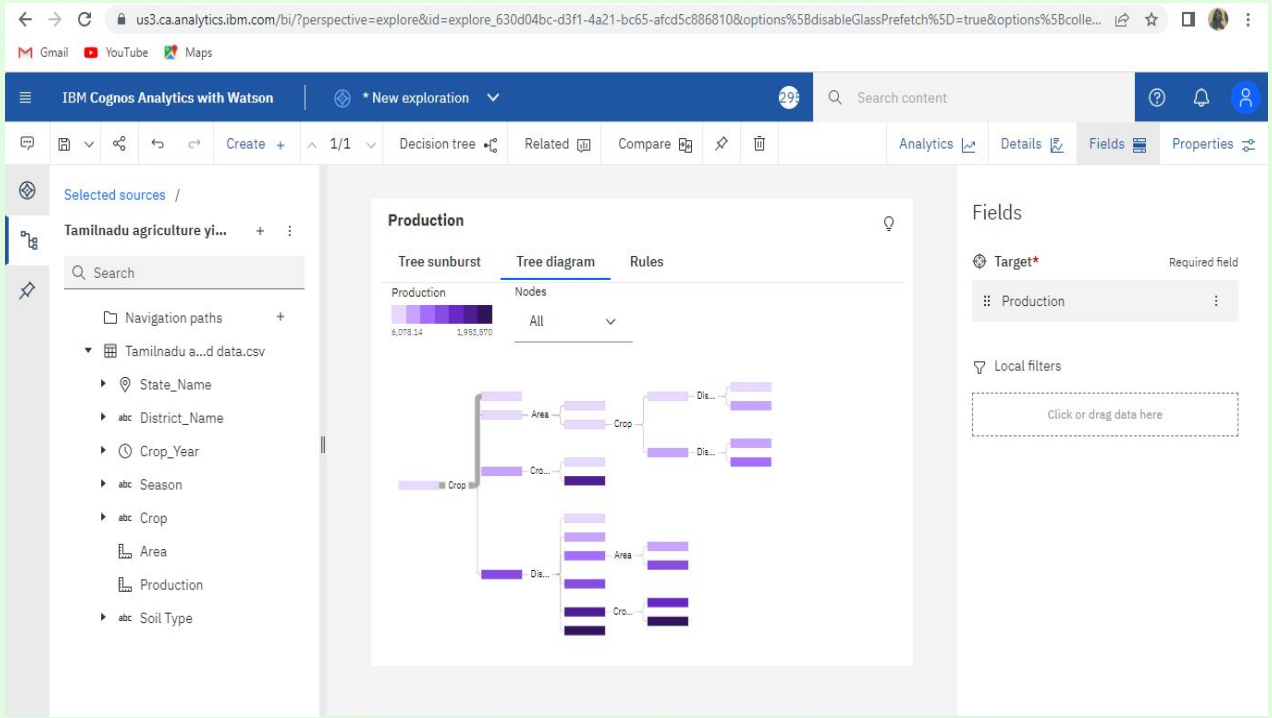


WORKING DEMO

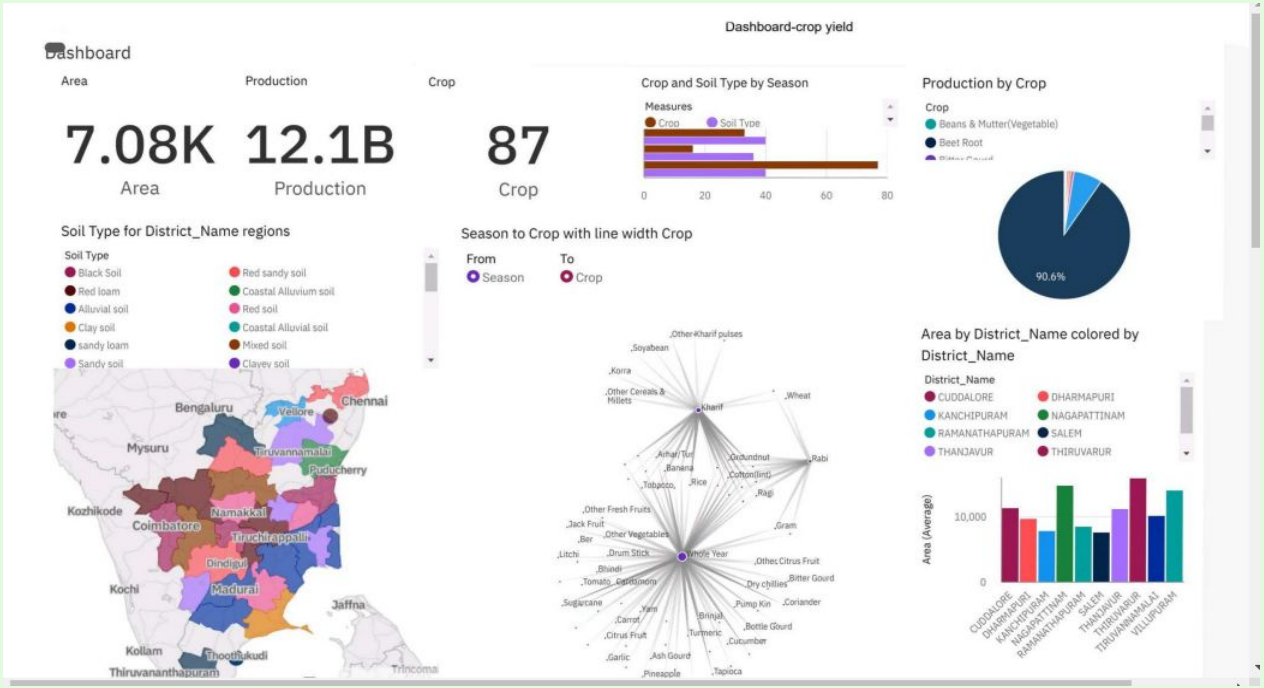
https://cropyieldestimationanalysis.web.app/

PERFORMANCE METRICS

1. **DATA EXPLORATION:**



2. DASHBOARD:


Dashboard-crop yield
Dashboard
Area
Production
Crop
7.08K
Area
12.1B
Production
87
Crop
Crop and Soil Type by Season
Measures
Crop
Soil Type
0
20
40
60
80
Production by Crop
Crop
Beans & Mutter(Vegetable)
Beet Root
90.6%
Soil Type for District_Name regions
Soil Type
Black Soil
Red loam
Alluvial soil
Clay soil
sandy loam
Sandy soil
Red sandy soil
Coastal Alluvium soil
Red soil
Coastal Alluvial soil
Mixed soil
Clayey soil
Bengaluru
Vellore
Chennai
Mysuru
Tiruvannamalai
Puducherry
Kozhikode
Namakkal
Coimbatore
Tiruchirappalli
Dindigul
Kochi
Madurai
Jaffna
Kollam
Thoothukudi
Thiruvananthapuram
Trincoma
Season to Crop with line width Crop
From
Season
To
Crop
Other Kharif pulses
Soyabean
Korra
Other Cereals & Millets
Kharif
Wheat
Arhar/Tur
Groundnut
Rabi
Banana
Rice
Cottonlint
Tobacco
Ragi
Other Fresh Fruits
Jack Fruit
Ber
Other Vegetables
Gram
Litchi
Drum Stick
Whole Year
Other Citrus Fruit
Bhindi
Tomato
Cardamom
Dry chillies
Bitter Gourd
Sugarcane
Yam
Pump Kin
Coriander
Carrot
Brinjal
Bottle Gourd
Citrus Fruit
Turmeric
Cucumber
Garlic
Ash Gourd
Pineapple
Tapioca
Area by District_Name colored by District_Name
District_Name
CUDDALORE
KANCHIPURAM
RAMANATHAPURAM
THANJAVUR
DHARMAPURI
NAGAPATTINAM
SALEM
THIRUVARUR
Area (Average)
10,000
0
CUDDALORE
DHARMAPURI
KANCHIPURAM
NAGAPATTINAM
RAMANATHAPURAM
SALEM
THANJAVUR
THIRUVARUR
TIRUVANNAMALAI
VILLUPURAM

FUTURE SCOPE

- Predict appropriate crop and maximum yield in the climate change.
- Collection of data, Analysis of it and modification of the algorithm.
- Find the percentage yield to happen from the match given percentage in terms of percentage error.
- A farmer can micromanage farming and all its accompanying activities — even before planting crops, it’s feasible to estimate the results by tweaking the variables involved.


THANK YOU