

BanGaea

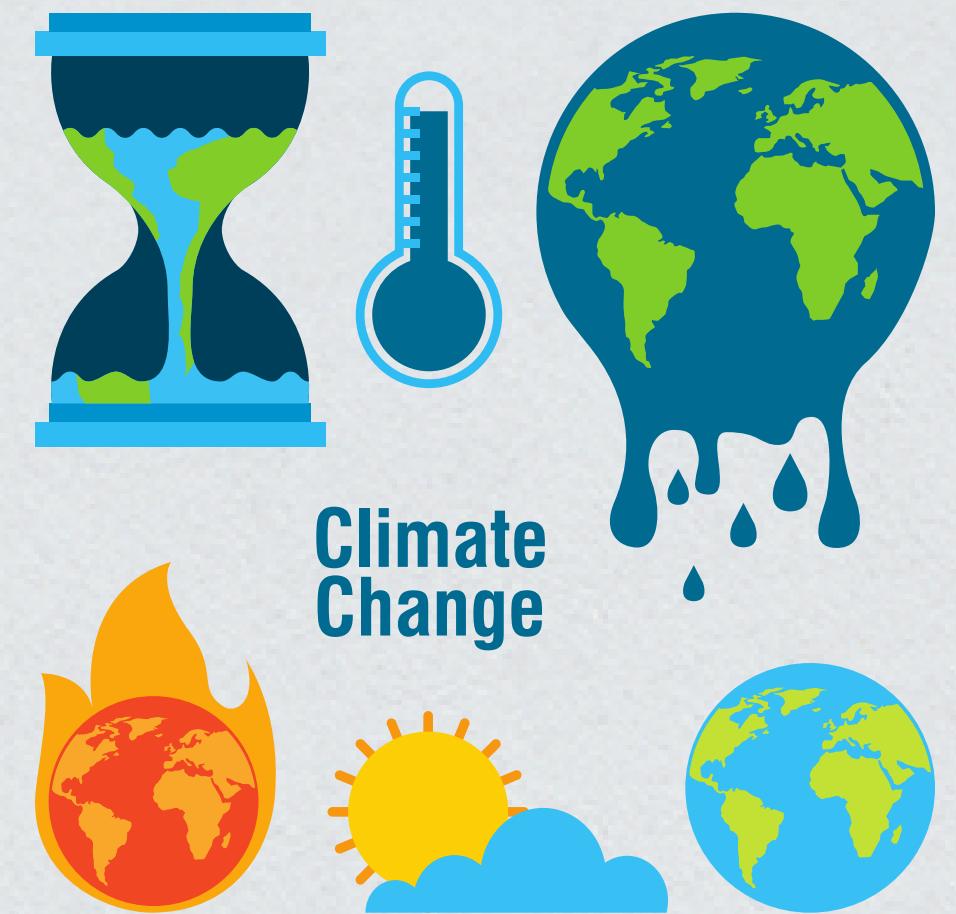


Farming system Reshape Our Old Story

Agenda Outline

- Problem & Solution
- Data Preprocessing
- Modeling
- Enhancements
- Deployment Prototype
- Future Work

Problem



Climate
Change

Our Solution



Farming Recommendation System :

- Predict What crop to grow
- Visual insights for the soil



Data Preprocessing

Step 1



DataSET



Clean



Anaylsis

Step 2



PREDICTION

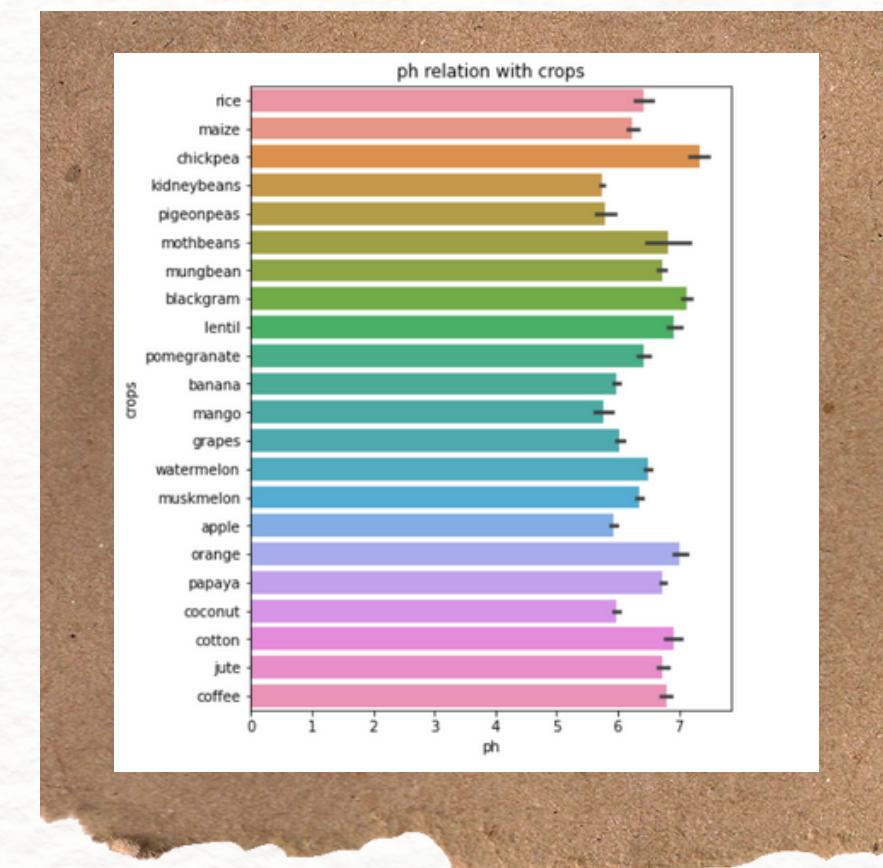
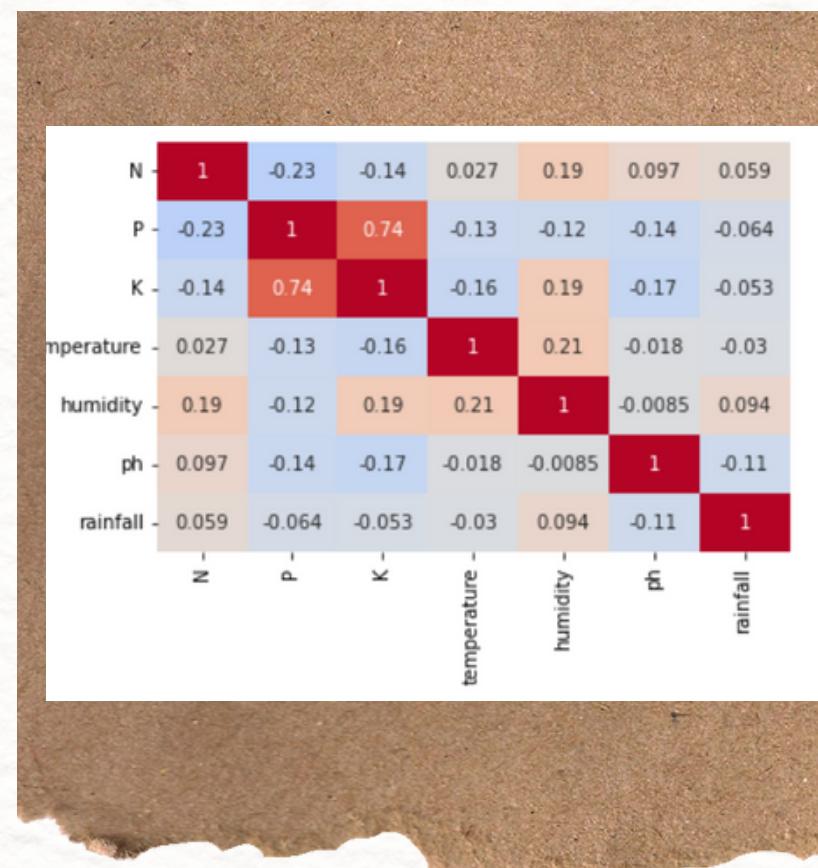
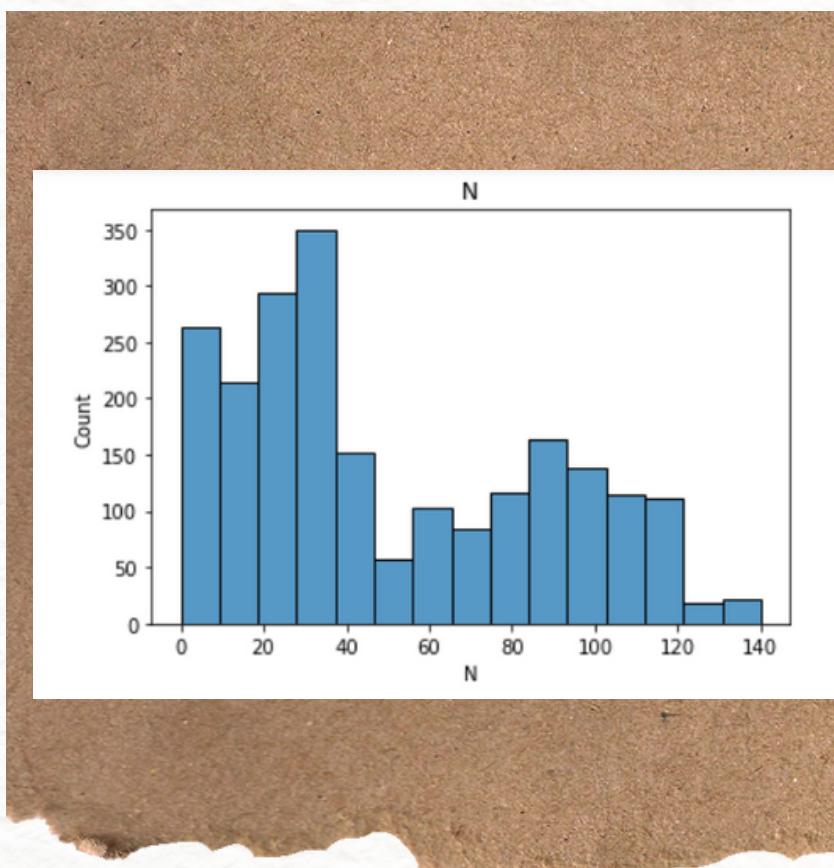
Step 1



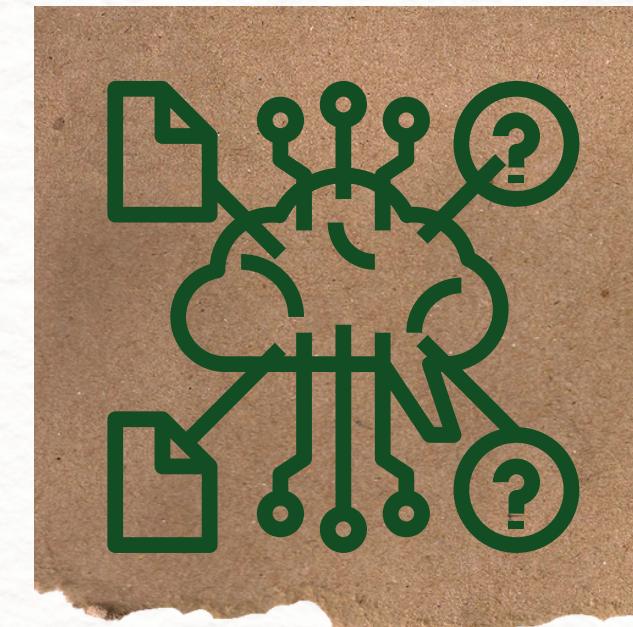
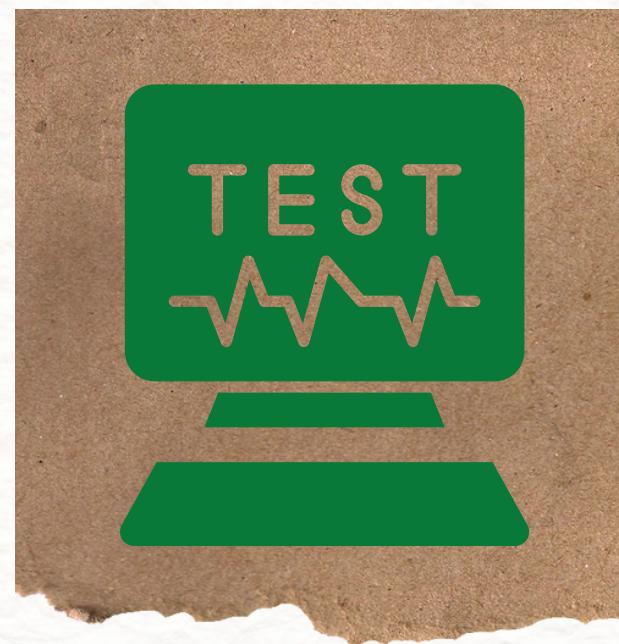
	N	P	K	temperature	humidity	pH	rainfall	label
0	90	42	43	20.879744	82.002744	6.502985	202.935536	rice
1	85	58	41	21.770462	80.319644	7.038096	226.655537	rice
2	60	55	44	23.004459	82.320763	7.840207	263.964248	rice
3	74	35	40	26.491096	80.158363	6.980401	242.864034	rice
4	78	42	42	20.130175	81.604873	7.628473	262.717340	rice
...
2195	107	34	32	26.774637	66.413269	6.780064	177.774507	coffee
2196	99	15	27	27.417112	56.636362	6.086922	127.924610	coffee
2197	118	33	30	24.131797	67.225123	6.362608	173.322839	coffee
2198	117	32	34	26.272418	52.127394	6.758793	127.175293	coffee
2199	104	18	30	23.603016	60.396475	6.779833	140.937041	coffee

2200 rows × 8 columns

Step 1



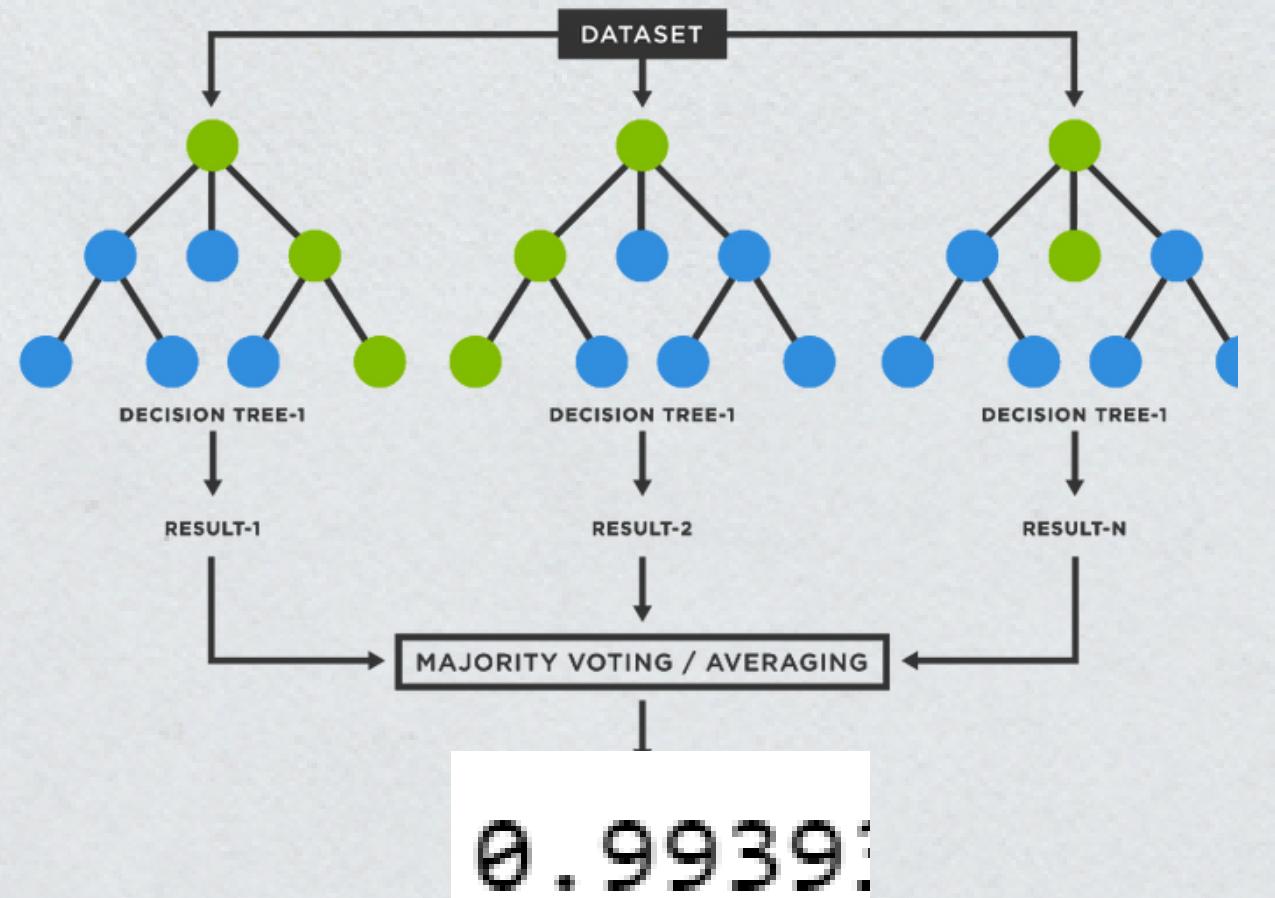
Step 2



```
x_train,x_test,y_train,y_test=train_test_split(x,y,train_size=0.7,random_state=30)
```

Modeling

Random Forest



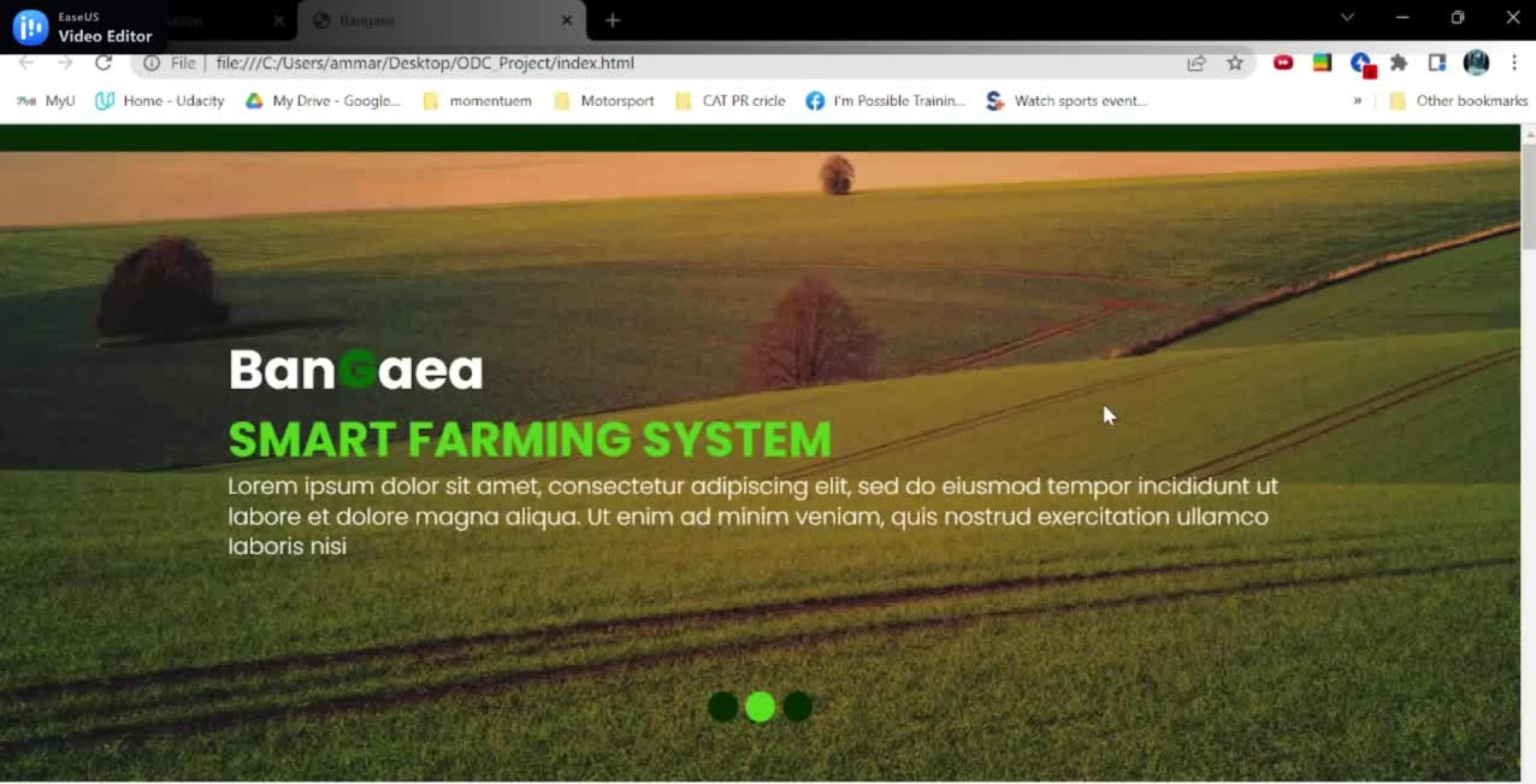
Navie Bayes

$$P(A|B) = \frac{P(B|A) * P(A)}{P(B)}$$

Accuracy: 1.0

Enhancements :

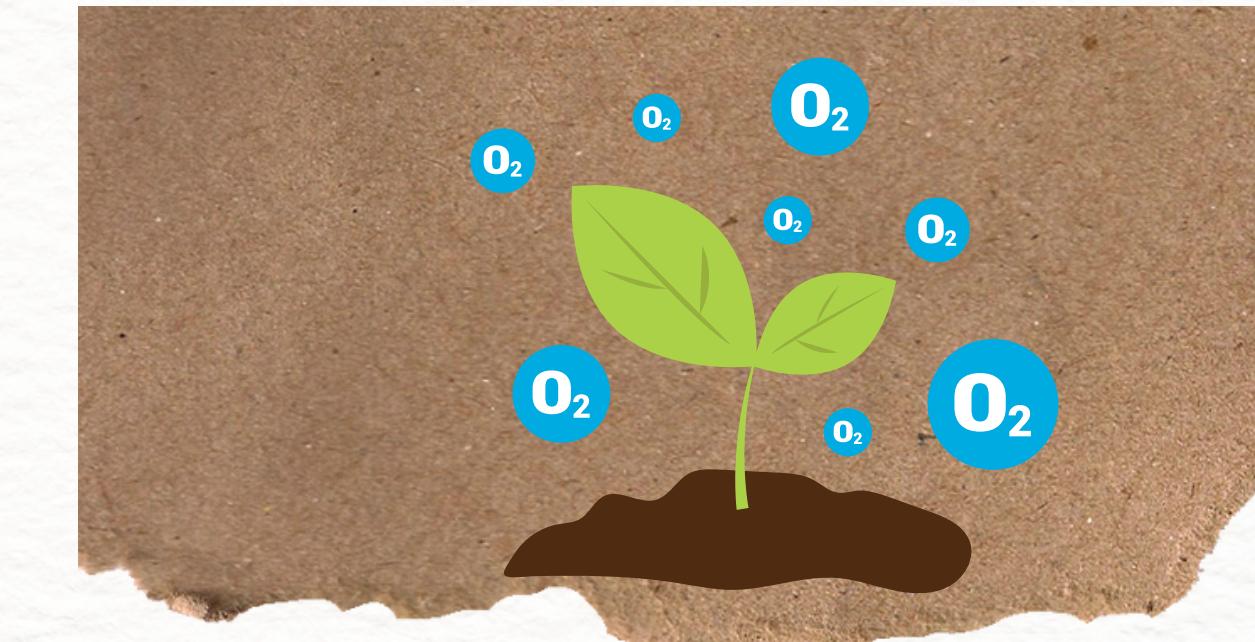
	Classification Procedure	Accuracy
0	Naive Bayes	1.000000
1	Logistic Regression	0.962121
2	SVC	0.996970
3	Random Forest	0.993939



Future Work



Fertilizer supplying



Plant disease detection

Data Analysis



Mustafa



Ammar

ML & Deployment



Hassan



Mayada



FINALLY, WE DID IT



Orange
Digital
Center

CINSTANT

