AGRIGEN

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ABSTRACT:**The main aim of the project is to support agriculture. In our project we include three major points to improve agriculture and make everyone have the awareness and habit of agriculture. The first point is that we have to find the field where the particular crop must be sown. That is the perfect place for the specified crop. The next is that we have to find the water amount that the crop needs. That is the water level needed for each crop must be specified. The last thing is that we must find the weeds and pests and the amount pesticide needed to treat these without affecting the growth of the crop. This project when implemented will be user friendly to the farmers, and the added advantage is that anyone could carry out agriculture with these measures. A normal person, everyone could do agriculture to increase the gross ratio of the country. Agriculture is the backbone of our country, to prevent and develop agriculture we may carry out this project to promote agriculture.**

I. INTRODUCTION:

Agriculture is the most developing and emerging field in today's world. There are various technologies and proposed ideas for the improvement of the agricultural development. The available idea is that there are solutions to find where the crop is should be sown and the amount of water to be irrigated and the amount of pesticide should be regulated. Our idea is that we are going to find the soil where the seed is to be sown, what amount of water is to be irrigated and what amount of pesticide is to be provided to the different types of crops. The texture of the soil is going to be analysed and the crop to be sown in that soil must be specified, this is to find which crop is to be sown in which field. The next is the by using the texture we can detect the amount of water to be irrigated to the soil and a particular plant. The amount of pesticide that the particular plant could resist can be found out from this. This project is the base of improving the agriculture of a country. Our agricultural yield has been going down, to cope up with this everyone should cultivate the habit of agriculture.

II. MAJOR BENEFITS:

- Over irrigation to crops may lead to water logging, this may in turn affect the yield of the crop.
- To overcome this we ensure the level of water to be irrigated to a particular plant.
- Planting a crop which is not suitable for the soil will affect the yield of the crop.
- To prevent this we could analyse the suitable crop at first.
- We can prevent pests and insects too from this project.

III. SCENARIO:

In this fast going world, agriculture is being the great deal that is very important for the survival of the humans. But now there are situations where the agriculture is not making a high yield due to many circumstances. Agriculture is an important in so many states but it is the backbone of states like Tamilnadu where people survive by making agriculture. Thereby in long run not many farmers could do agriculture properly and fail to make a higher yield. To overcome such circumstances we propose a beneficial way to meet such needs. It is in a form of application which would be useful and

efficient and moreover edible to all sort of people to make a farm.

V. METHODOLOGY:

The methods that we use to cope up with these burdens are a bit natural and an efficient way of handling such drawbacks. We are going to find a way how to analyse the texture of the soil and then perform three ways, where the first way is to say which soil is best for which crop. Second the amount of water to be irrigated to the particular crop and the particular soil can be found out and irrigated according to it. And the final method is to find the amount of pesticides to be provided to the soil.

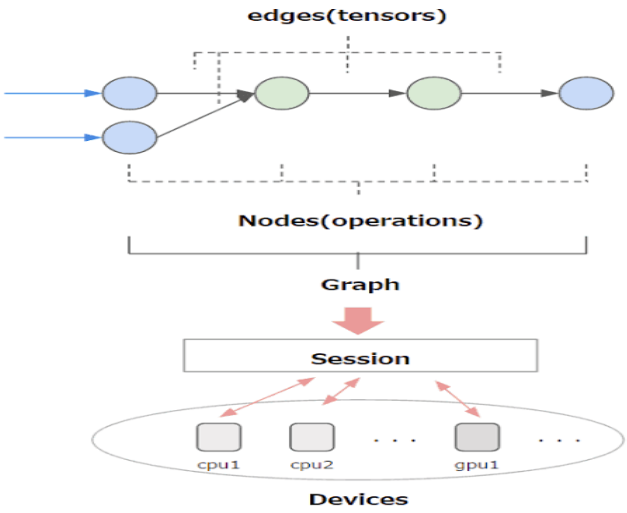
VI. PROPOSED SOLUTION:

The solution proposed in this project is analysing the soil by using machine learning. We are going to develop an application which will have a soil analyser. This analysis of soil could be achieved by using machine learning using python algorithm. Machine Learning is a process where we train the machine to perform the desired operation for an example, let us consider an apple and an orange where we have to pre-define the texture, colour, size shape and some other attributes together to make the machine find the difference between the two fruits. In the same way,

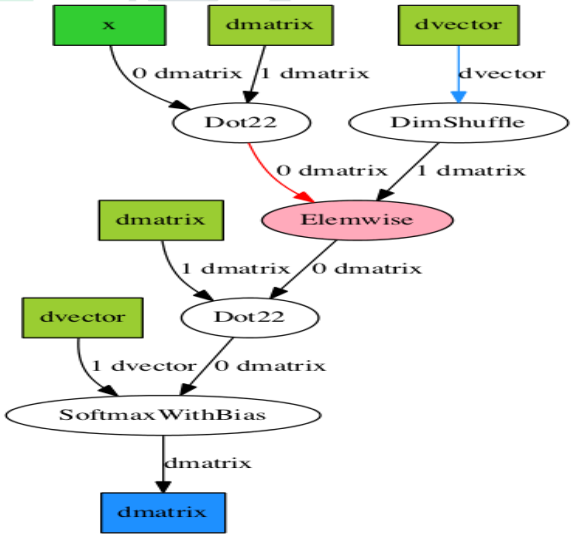
we are going to pre-define the texture of the soil to the machine and according to the texture, the amount of water to be irrigated can be found, the crop to be sown in the particular soil can be viewed and thereby the amount of pesticide needed for the crop can be detected and at last the result can be displayed. The first point is that we have to find the field where the particular crop must be sown. That is the perfect place for the specified crop. The next is that we have to find the water amount that the crop needs. That is water level needed for each crop must be specified. The last thing is that we must find the weeds and pests and the amount of pesticide needed to treat these without affecting the growth of the crop. All these can be done using a single image processing device. This is the main idea to be implemented in our project.

VII.MODULES :

1.TENSORFLOW:
Tensorflow python is used in various applications, say for instance for particular analysis of growth and changes we use this type.They also tend to get used for research purposes and the data given in the form of differential representation.It walks through Tensorflow.train.Adam optimization for further concepts.



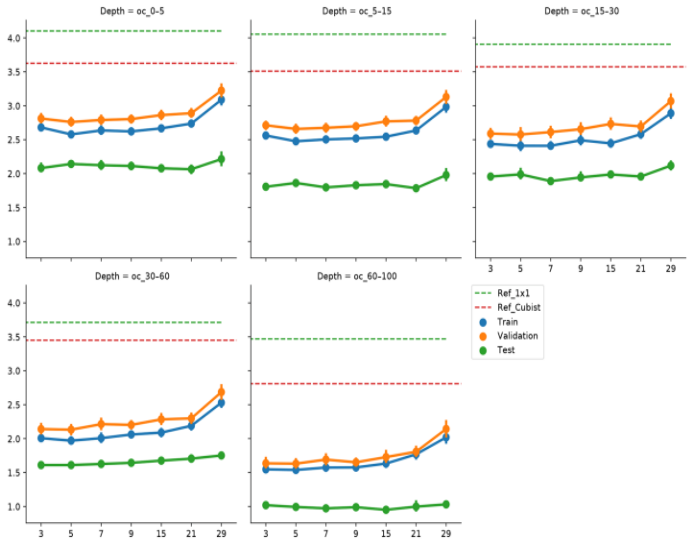
2.THEANO:
Theano is generally used for numerical computation purposes and with the help of python programming I it computer the result.It analysis the soil and gives the data within a shorter period of time.The also involve in evaluating the best quality within a shorter.

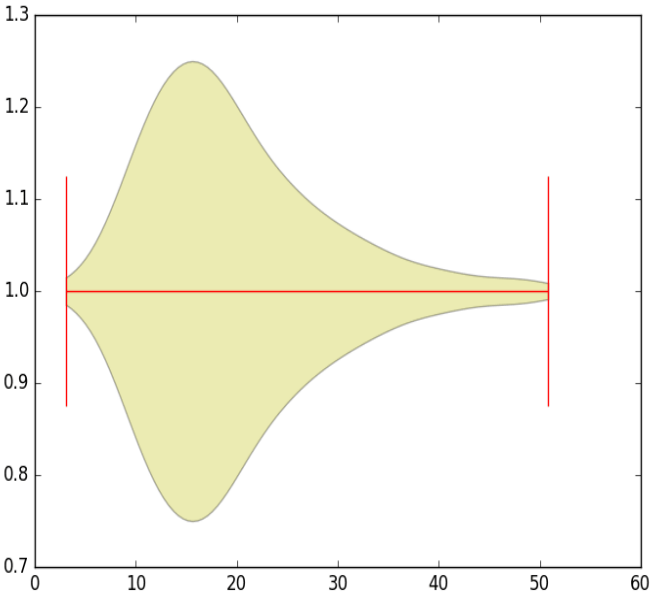


3.SEABORN:
Seaborn is a high level interface for drawing and analysis purposes. In our case were present graphically the analysis we made for the soil and some activity measures we take for making it much more effective and bringing out the key factor to be improved.It is some what similar to Matplotlib.

They also further go beyond Matplotlib for clear analysis. They also clearly make it get understandable. We also show that the soil content must only be added at some particular level to get a better production. The drawing scared on easing step by step manner for clear visualization showings.

Then analysis we make tend to make sure that only the particular amount of pesticide and crop content must only bead detente particular location.





VIII:FORECASTOFFUTUREDATAANALYSIS:

We also make some validation process getting applied and considering each series of current data for 10 times. The data predicted for it, is getting compared with other sorts of data, and then they also make it more clear that they different get much more implemented in future analysis. Mainly the data based on the variance of crop type, year of time series, geographical area, the particular rainfall at that location and other measures.

CNR data set also gives some statistical data, base done the crop prediction and data analytical section and the give some problem since current situation duet over

Filling of Pesticide Island which would lead tooth ercroprelated problems.

VII. CONCLUSION:

The current GDP ratio of India is been decreased from 4197. 47 INR to 3461. 02 INR Billion which is a massive decrease in the yield. This could probably not serve the growing population. This project could be more useful to the agriculture types like intensive subsistence farming, commercial plantations, Mediterranean agriculture and so on. The countries like United States stands first in cultivating corn and soybeans whereas countries like Africa and India are the leading producers of Millet. All over ratio shows that China stands first in agriculture. To make India the first country in agriculture, a higher population must be involved in cultivating crops. To achieve this our project could be useful in such a manner that even a blind person could promote agriculture.

VIII. REFERENCES:

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