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**BIDA MINI PROJECT REPORT**

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**(An Autonomous Institute affiliated to Savitribai Phule Pune University)**

**(NBA and NAAC accredited, ISO 9001:2015 certified)**

**Group Members:**

|  |  |  |
| --- | --- | --- |
| **Name** | **Gr no** | **Roll no** |
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**Problem statement:**

Analysis and Modelling of agriculture and rainfall data in order to predict the yield of various crops along with study of dependencies of various attributes.

**Tools Used:**

* **For predctive analysis:**
* sklearn library
* python and scikit library
* algorithms used:Random forest and Linear regression.
* **For visualization:**
* Tableau public
* Power BI

**Tech Used:**

* HTML
* CSS(Cascading Style Sheets)
* Javascript
* Jquery
* Django

**Dataset description(attributes):**

* State
* Season
* Area
* Production
* Rainfall
* Year
* Yield
* Custom

**Dataset source:**

* From kaggle

**Objectives:**

* Understanding and Visualizing Indian cropping Pattern.
* Applying Regression models for yield prediction.
* Exploring the benefits of the yield prediction system.
* Study effects of environmental factors on crop patterns.

**Inference/benefits:**

1.Rainfall has great effect on cropping patterns in India and proper forecast of Rainfall data can help predict crops to cultivated.

2.Given the input yield of the crop farmer wants to cultivate can be predicted.

3.Farmers can get essential information as to which crop can be cultivated.

4.This in turn can help reduce the losses and increase the profits.

5.With the availability of other attributes like temperature, humidity, soil type, predictions can be made with more precision.

6.Time series analysis can also be applied to get forecast of data in coming years.