CROP PRODUCTION ANALYSIS USING IBM COG NOS DASHBOARD

CONTENTS

1. INTRODUCTION

1.1 Overview

project title - crop production analysis using IBM cog nos dashboard

- crop production in India is one of the 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.

- "Crop production is the branch of agriculture that deals with the production of crops for food and fiber.

- Food is the major source of energy. Every living organism on this planet needs food to stay alive and to continue all other essential life processes.

- Crop production is a common agricultural practice followed by worldwide farmers to grow and produce crops to use as food and fiber.

- This practice includes all the feed sources that are required to maintain and produce crops.

- Listed below are few practices used during crop production.

  - Preparation of Soil.
  - Sowing of Seeds.
  - Irrigation.
  - Application of manure, pesticides, and fertilizers to the crops.
  - Protecting and Harvesting Crops.
  - Storage and Preserving the produced Crops.

- The ultimate stages of crop production are harvesting and storage.

- Harvesting requires art and practice because most of crops can be lost due to improper methods of harvesting. Another concern besides harvesting is storage. Storage of grains is to be given utmost priority as improper storage can result in the destruction of crops being by pests or unfavorable environmental conditions.

1.2 **purpose:**

- we know that our country is based on agriculture more than 90% people are working like a farmers.
- Crop rotation is a cropping system wherein the land is fixed but the crops grown on the land differ. In crop rotation, the type of crops grown and the pattern of planting can vary greatly.
- Cropping is the **removal of unwanted outer areas from a photographic or illustrated image.**
- The process usually consists of the removal of some of the peripheral areas of an image to remove extraneous trash from the picture, to improve its framing, to change the aspect ratio, or to accentuate or isolate the subject matter from its background.
- A cropping made by trimming off the top and bottom margins of a photograph, or a film, produces a view that mimics the panoramic format (in photography) or the widescreen format in cinematography and broadcasting.
- Neither of these formats is cropped as such, but rather they are products of highly specialized optical configurations and camera designs.

2. LITERATURE SURVEY

2.1 existing problem

- Agriculture was and will always be one of the most important occupations since it handles feeding the world and providing sustenance.
- However, due to modernization and the ever-increasing population, agriculture is facing some hurdles lately. These issues are impacting the production of agricultural crops both in qualitative as well as in quantitative terms.
- **>>**The problems of agriculture are many, but the article below discusses a few of the most influential ones that end up governing the agricultural sector widely.
- >>these problems vary from small to big and are different for different countries all over the world. Despite that, the underlying issues of agriculture faced globally are along the same lines.

- **>>>>>>t**his is the major facing by the farmers,**Not Enough Agricultural Land.**

- This problem of agriculture is faced by people all over the world. The steady industrial growth coupled with the ever-increasing urbanization is leaving little to no room for any agricultural land. Deforestation and concrete jungles are taking up maximum area leaving little to no room for farming.

✪ Limited Resources

- This is another problem we face in agriculture. Even if one wants to go all out with their agricultural techniques, this cannot be made possible. The earth can only suffice its subjects with limited resources. Raw materials, water, and land for farming are all available in limited quantities. And lack of funds make it all the more difficult to work on an agricultural project and give it all the hard work and appreciation it deserves.

2.2 probelm solution:

Use of Artificial Alternatives.

- With the advent of various commercialized seeds, agriculture is moving towards becoming more and more artificial.

- Other than that, pesticides and insecticides also add to the chemical composition of the crops resulted from such seeds. Unfortunately, organic farming is not the norm but is a luxury instead. And organic farming is quite expensive too.

- Most farmers don’t prefer to go out of their way in order to make sure that their crops are completely naturally produced. Also, artificial farming alternatives are not the best option to consider as far as the health of the people is concerned. but that is a topic for another day. all in all, as long as this problem of agriculture prevails, it is difficult for people to rely on it as an only profession.

helping in Financial Support

- In almost all developing countries, agriculture is the main occupation of a majority of people. However, it is not given its due importance. Farmers in such countries are hardly

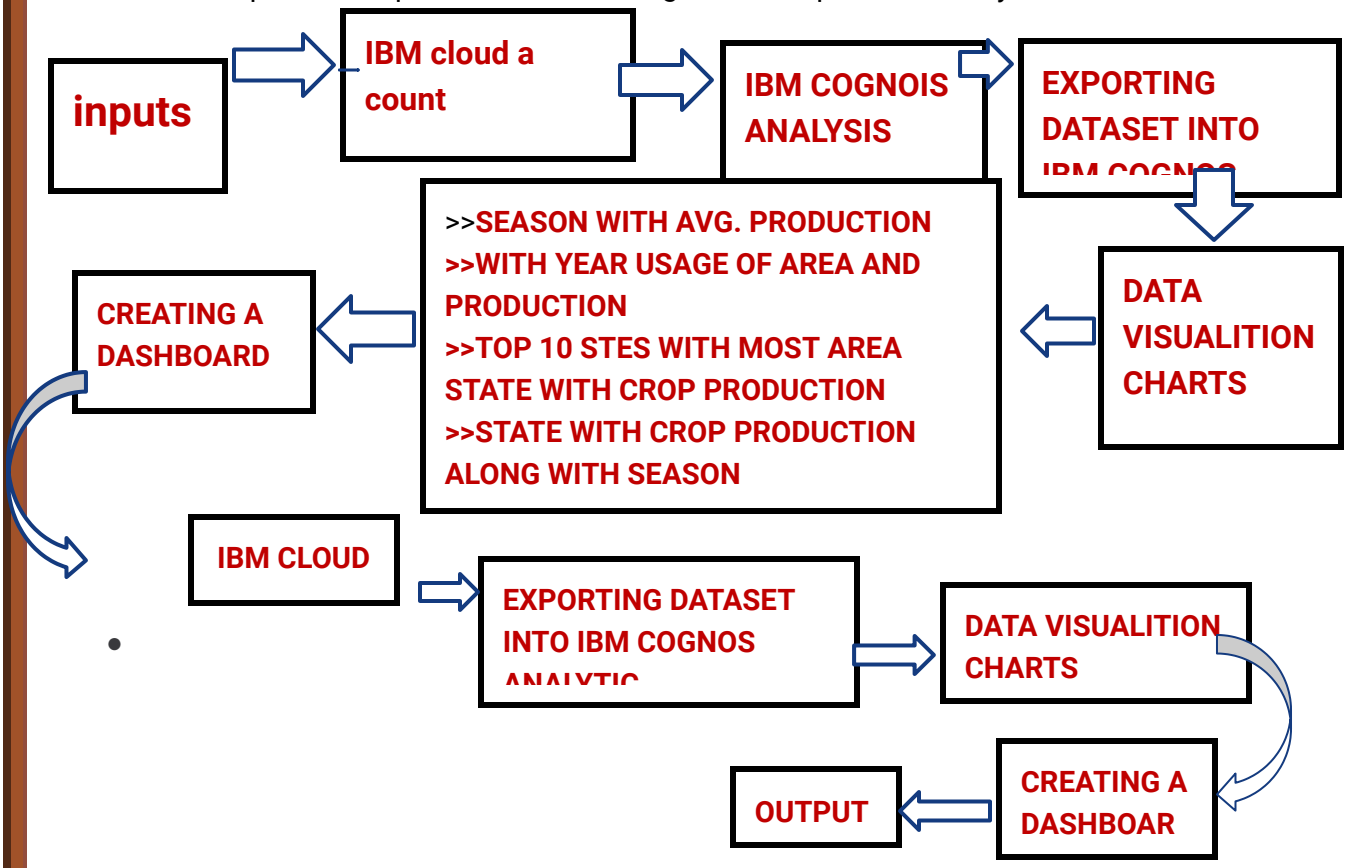
given any financial benefits, and the schemes designed in their favor rarely make it to them.

- Insects, poverty, and lack of irrigation facilities are only a few of the issues that farmers face on a daily basis.

3. theoretical analysis

3.1 block diagram

Data Pre-processing: In this step, the data gathered from the farmer is processed for extraction of data for the process of prediction. Block Diagram of Crop Prediction System is shown below.



3.2 HARDWARE AND SOFTWARE DESIGNING

- The hardware part we required that is system/pc/laptop.

- the software we required that the IBM cog nos dashboard.

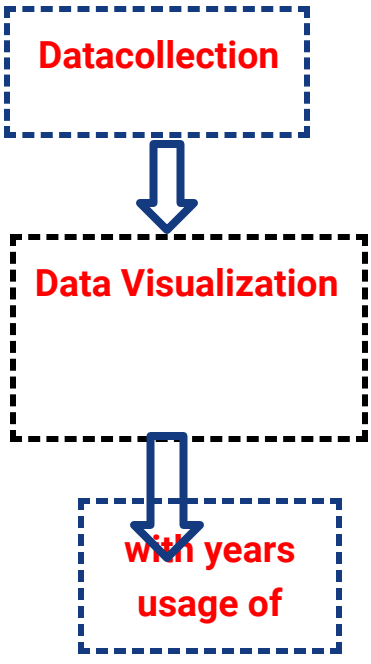
4. experimental invistigation:

- we refer several text books and internet/web searching for crop production.
- And we also refer in youtube for demonstration.we had done different investigation in crop production.
- Since only a few centimeters of the top layer of soil supports plant growth, turning and loosening of soil brings the nutrient-rich soil to the top so that plants can use these nutrients.
- Thus, turning and loosening of soil is very important for cultivation of crops.

5. flowchart

- in this flow chart we have to show the control flow of the solution.
- Data Pre-processing: In this step, the data gathered from the farmer is processed for extraction of data for the process of prediction.

Diagram showing the control flow of the solution



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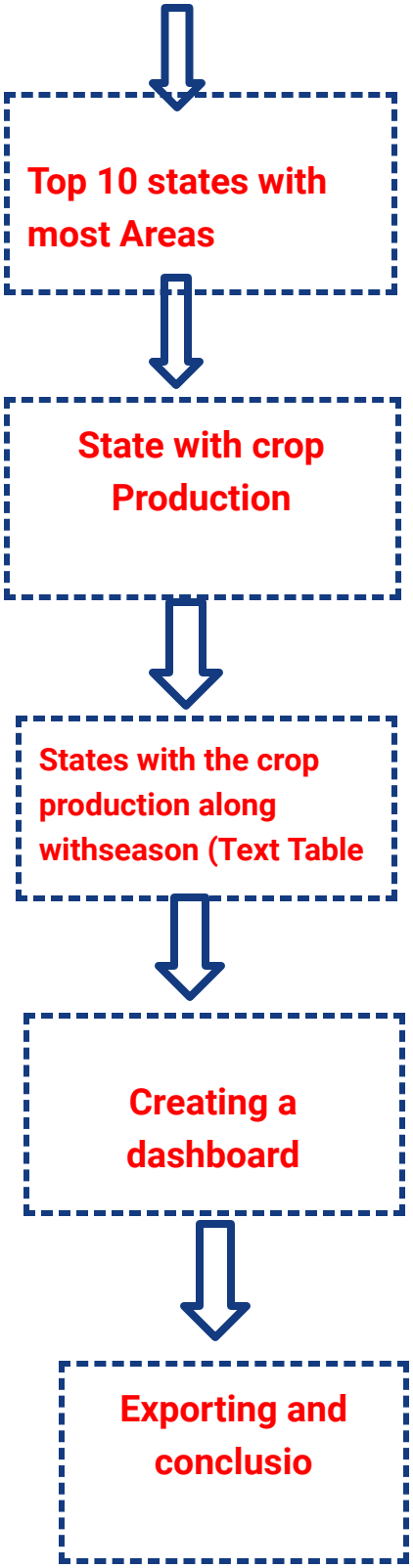
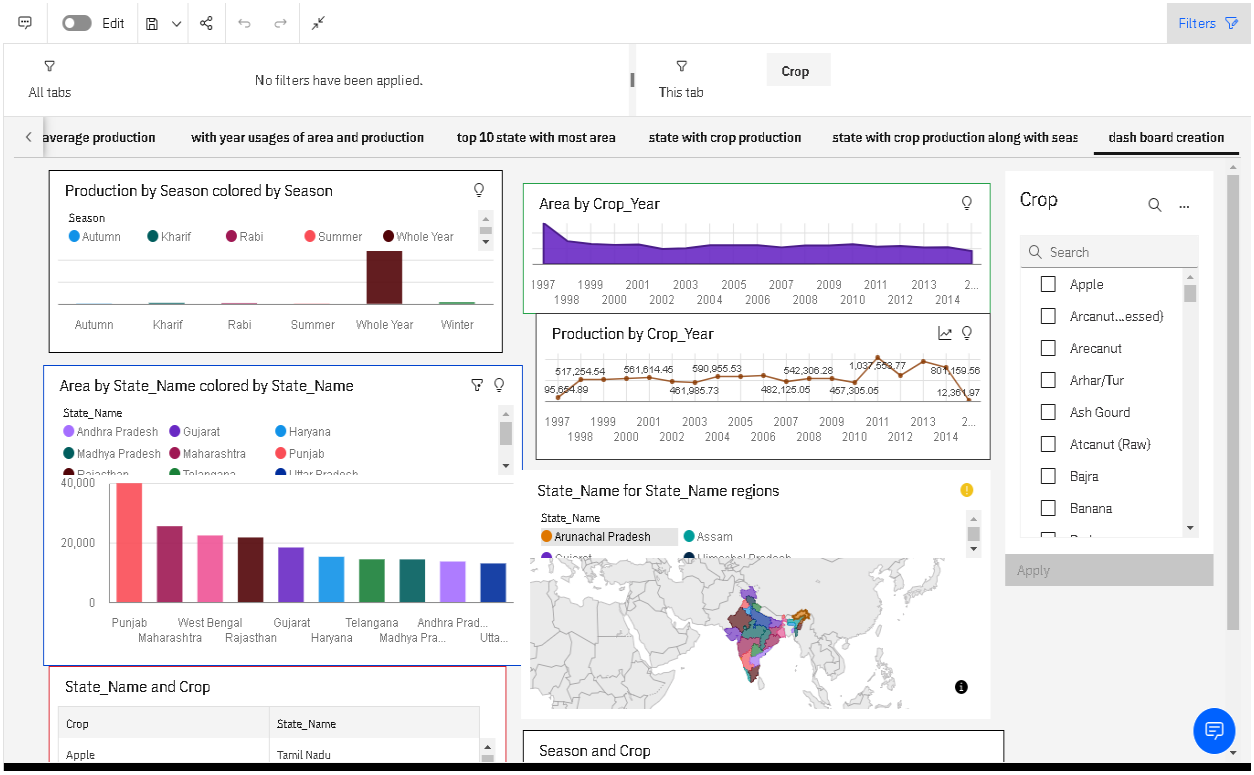
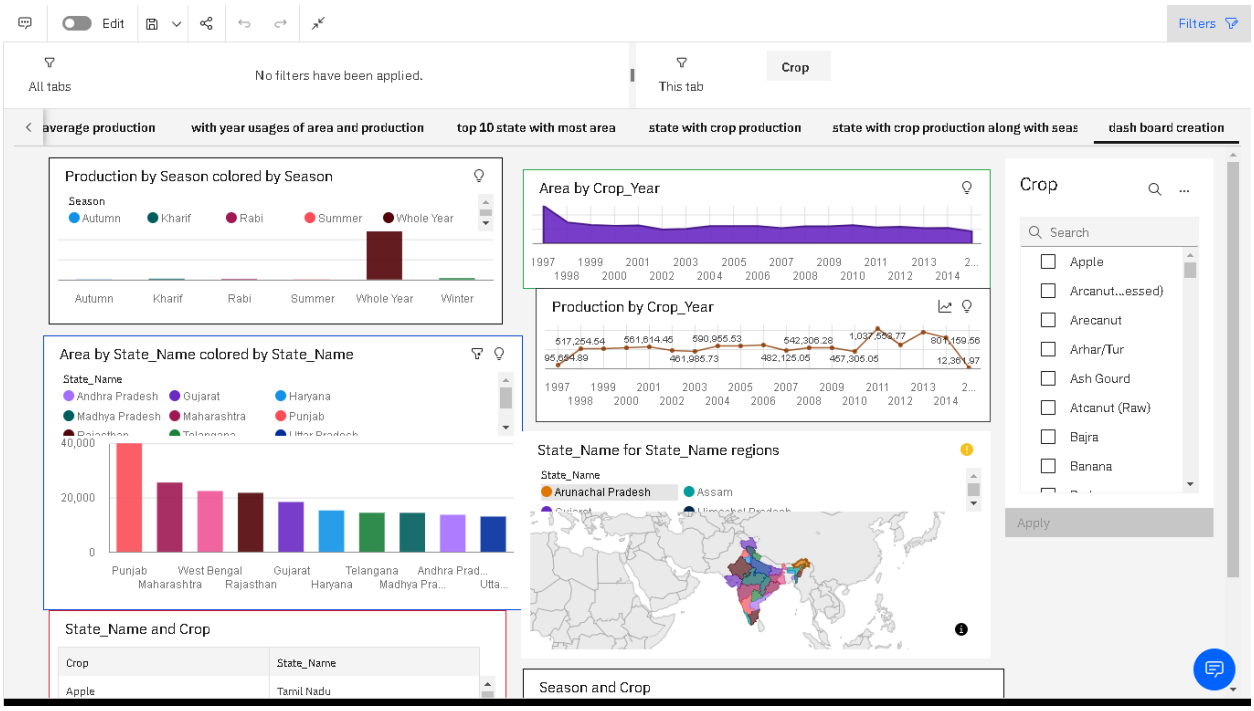

Top 10 states with most Areas
State with crop Production
States with the crop production along withseason (Text Table
Creating a dashboard
Exporting and conclusio

6. RESULT

Final findings (output) of the project along with Screenshots



2nd dash board



7 ADVANTAGES AND DISADVANTAGES

- List of advantages and disadvantages of the proposed solution

Advantages:

- --- Lower costs--reduces maintenance due to complete report coverage and zero-footprint environment.
- -- Faster results--shortens reporting time due to seamless integration and adaptive authoring. -- Improved decision making--reports and dashboards present data in easily-understood formats.
- --Adaptive authoring automatically adjusts report layout when objects are added,moved,or removed.
- -- Ability to work with data using familiar business terms.
- -- Ability to use a variety of charts--cross tabs,bar or 3D bar,pie or doughnut,line,gauge,funnel,scatter,dot density,waterfall,and so forth.

-- Ability to create complex, multi-page layouts using different data sources.

-- High performance data access across all sources

-- Complete connectivity regardless of environment.

-- open architecture that leverages XML,SOAP,and WSDL.

-- Ability to integrate seamlessly with the selling and Fulfillment Foundation, without the use. having to log in to the application again.

Disadvantages:

Along with benefits of IBM Cog nos analytics mentioned above, there are a few drawbacks to know about, as well.

some of the disadvantages are:

- Total cost of ownership(TCO) is more significant than other tools.
- Minimal forecast capabilities.
- Investment in cog nos R and D by IBM is declining.
- wont work smoothly with large data sets having many parameters.
- cross-browser compatibility is often problematic.

8 APPLICATIONS

The areas where this solution can be applied.

- Query performance
- General production system performance
- Aggregate view of data vs transactional view
- Complex SQL
- Normalized databases are typically tuned for simple querie

9 CONCLUSION

Conclusion summarizing the entire work and findings.

>>From this entire findings we know fundamental concepts and can work on IBM Cog nos Analytics
>>Gain a board understanding of plotting different graphs.

>>Able to create meaningful dashboards

>>Learn to build stunning dashboards with cog nos analytics

>>create tabbed dashboards and stories using the new dashboard tool of cog nos v11

>>Master the full-fledged Report Authoring tool

>>We will understand how a dashboard is different from a report,when to use both

>>we will understand the reporting interface

>>Implementing cross tabs and SQL queries From the crop production we entries the value of commitment, stay grounded and humble to our nature, gratitude goes a long way, great things take time,working hard and having fun can happen at the same time,pay it forward with generosity

10 FUTURE SCOPE

Enhancements that can be made in the future.

Cog nos is the one of the leading BI suites in the market for meta data modelling and reporting so learning this will be definitely helpful in our career growth in BI domain.

IBM cog nos TM1 form 10 has been around for decent time and has officially experienced a few minor and real updates.

IBM cog nos analytics leads to better decisions and improves company performance and profitability. we can scope the better job in future with easy experience.
Total 709 companies are most often in computer software industry.

Rightly so, a good majority of them focus on the strategic aspects of dashboard creation such as understanding our audience and purpose first, and choosing the best charts to display our data visually for maximum readability and insights.

The training industry quarterly further narrow scope for specific industries,audiences,or purposes, providing tips on the tailor dashboards for learning& development.

11 BIBILOGRAPHY.

References of previous works or websites visited/books referred for analysis about the project, solution previous findings etc.

https://knoema.com/insights?tag=Crop%20dashboard