INDIA’S AGRICULTURE CROP PRODUCTION ANALYSIS (1997-2021)

TEAM MEMEBERS:

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INTRODUCTION:

This report delves into the captivating realm of India's agricultural cultivation, providing a comprehensive visual exploration of key aspects and trends in the agricultural sector. Through the visual representations, readers can gain valuable insights into crop production, seasonal variations, regional distribution, and overall production trends. These visualizations enable intuitive analysis, allowing stakeholders to uncover patterns, identify areas of growth or concern, and make data-driven decisions. By harnessing the power of Tableau, this report not only presents the data in a visually appealing manner but also provides an interactive experience for readers to explore the intricacies of India's agricultural cultivation. To Extractthe Insights from the data and put the data in the form of visualizations, Dashboards and Story we employed Tableau tool.

Milestone 1: Define Problem / Problem Understanding

Activity 1: Specify the business problem

Says

Thinks

Important years:
- 1997
- 2005
- 2010
- 2015
- 2021

Crop Protection Methods**
- **1997**: Predominantly chemical pesticides used for crop protection.
- **2005**: Introduction of integrated pest management (IPM) techniques.
- **2010**: Shift towards organic farming practices.
- **2015**: Continued use of IPM and organic methods with reduced chemical pesticide reliance.
- **2021**: Further adoption of sustainable and eco-friendly approaches,pest management (IPM) techniques.
- **2010**: Shift towards organic farming practices.
- **2015**: Continued use of IPM and organic proaches.

India's agricultural crop production (1997-2021)

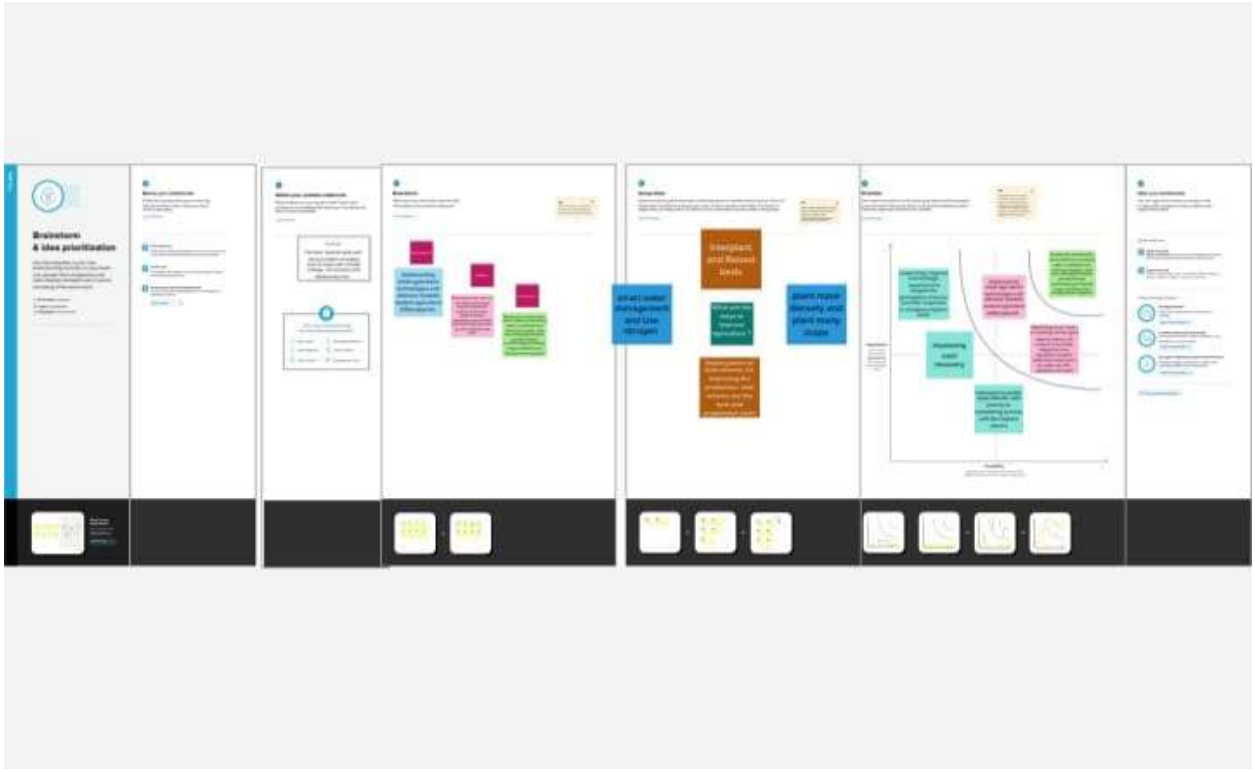
Key Trends:**
- **1997**: High reliance on chemical pesticides, led to environmental concerns.
- **2005**: Emphasis on IPM, reduced chemical use, and promoted natural predators.
- **2010**: Growing interest in organic farming for healthier produce.
- **2015**: Sustainable practices gained momentum for safer, eco-friendly agriculture.
- **2021**: Enhanced focus on regenerative agriculture and biotechnology.

Impact**
- **1997**: Environmental degradation and health issues due to pesticide use.
- **2005**: Reduced pesticide residues, better crop yields, and healthier ecosystems.
- **2010**: Improved soil health, reduced pollution, and premium organic produce.
- **2015**: Lowered environmental impact, diversified agriculture, and safer food.
- **2021**: Sustainable practices led to resilience against climate change and increased food security.

Does

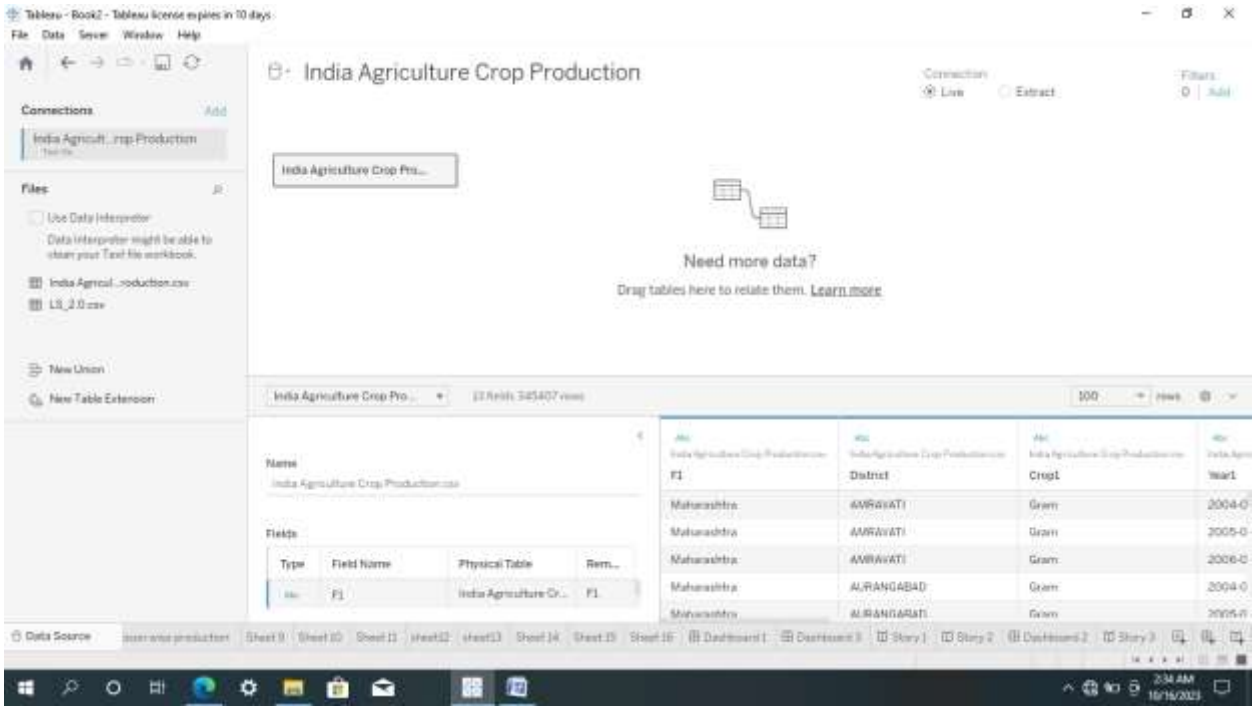
Feels

Activity 2: Business requirements



MILESTONE 2:DATA COLLECTION

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, evaluate outcomes andgenerate insights from the data.


India Agriculture Crop Production
Connections
Files
Need more data?
Drag tables here to relate them. Learn more
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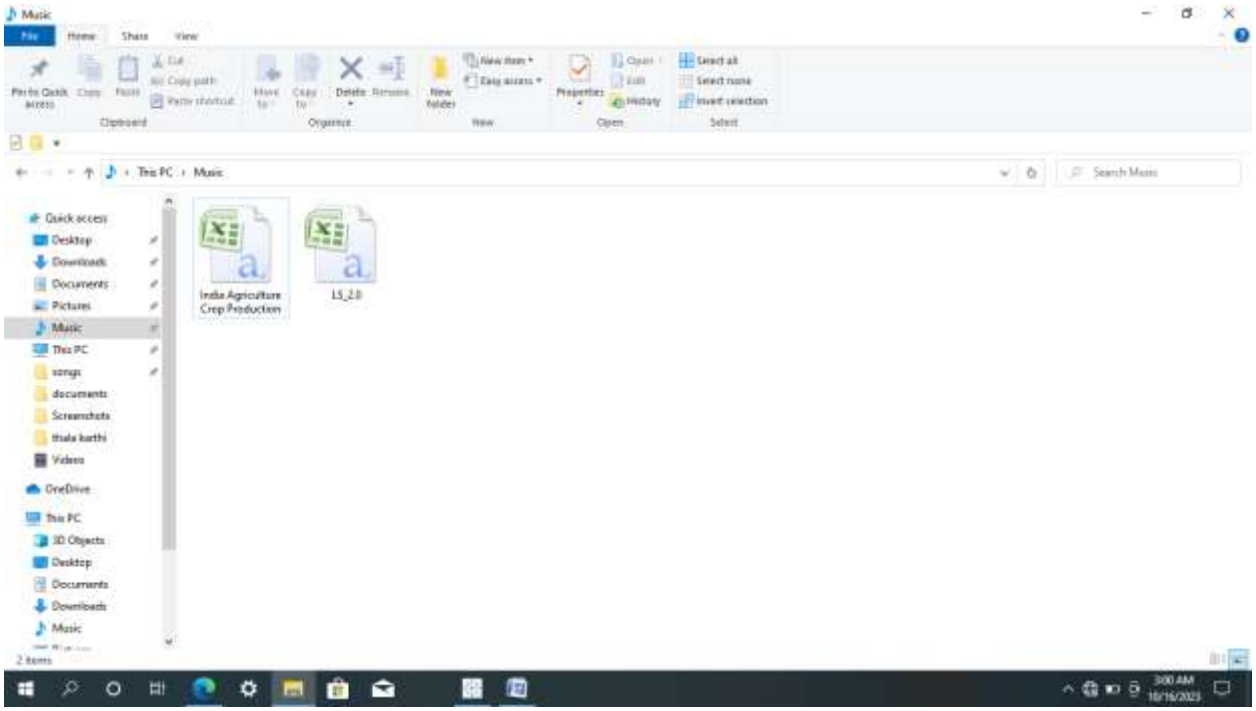
Activity:1



MILESTONE:3 DATA PREPARATION

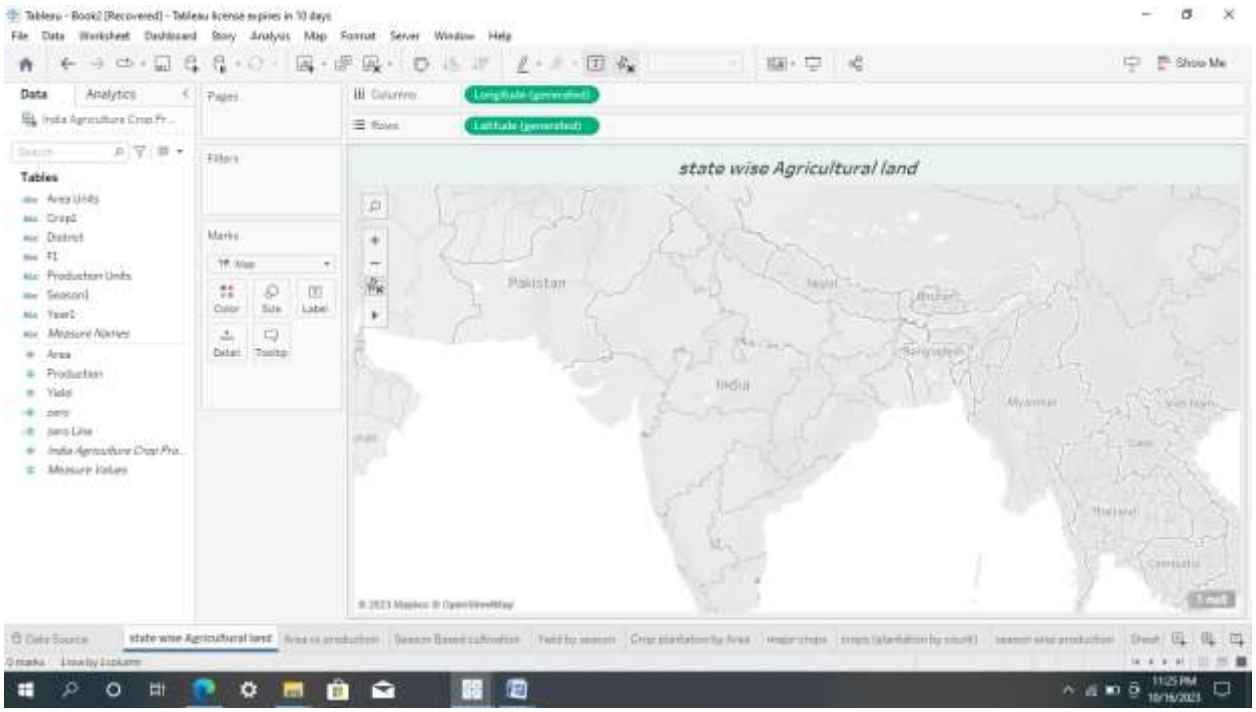
Activity 1: Prepare the Data for Visualization

Preparing the data for visualization involves cleaning the data to remove irrelevant or missing data, transforming the data into a format that can be easily visualized, exploring the data to identify patterns and trends, filtering the data to focus on specific subsets of data, preparing the data for visualization software, and ensuring the data is accurate and complete. This process helps to make the data easily understandable and ready for creating visualizations to gain insights into the performance and efficien

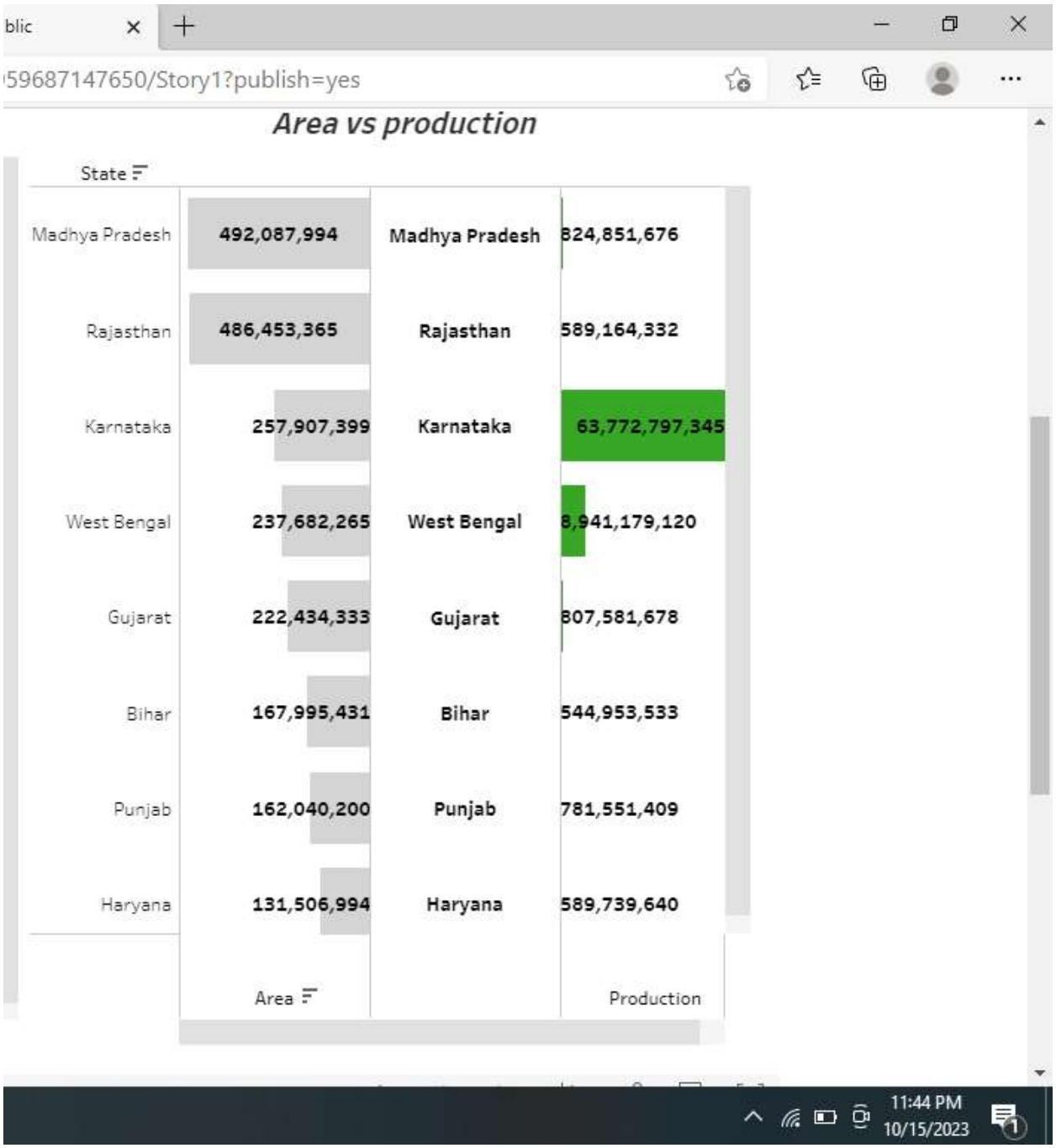
Activity 1: No of Unique Visualizations

The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyse the performance and efficiency of banks include bar charts, line charts, heat maps, scatter plots, pie charts, Maps etc

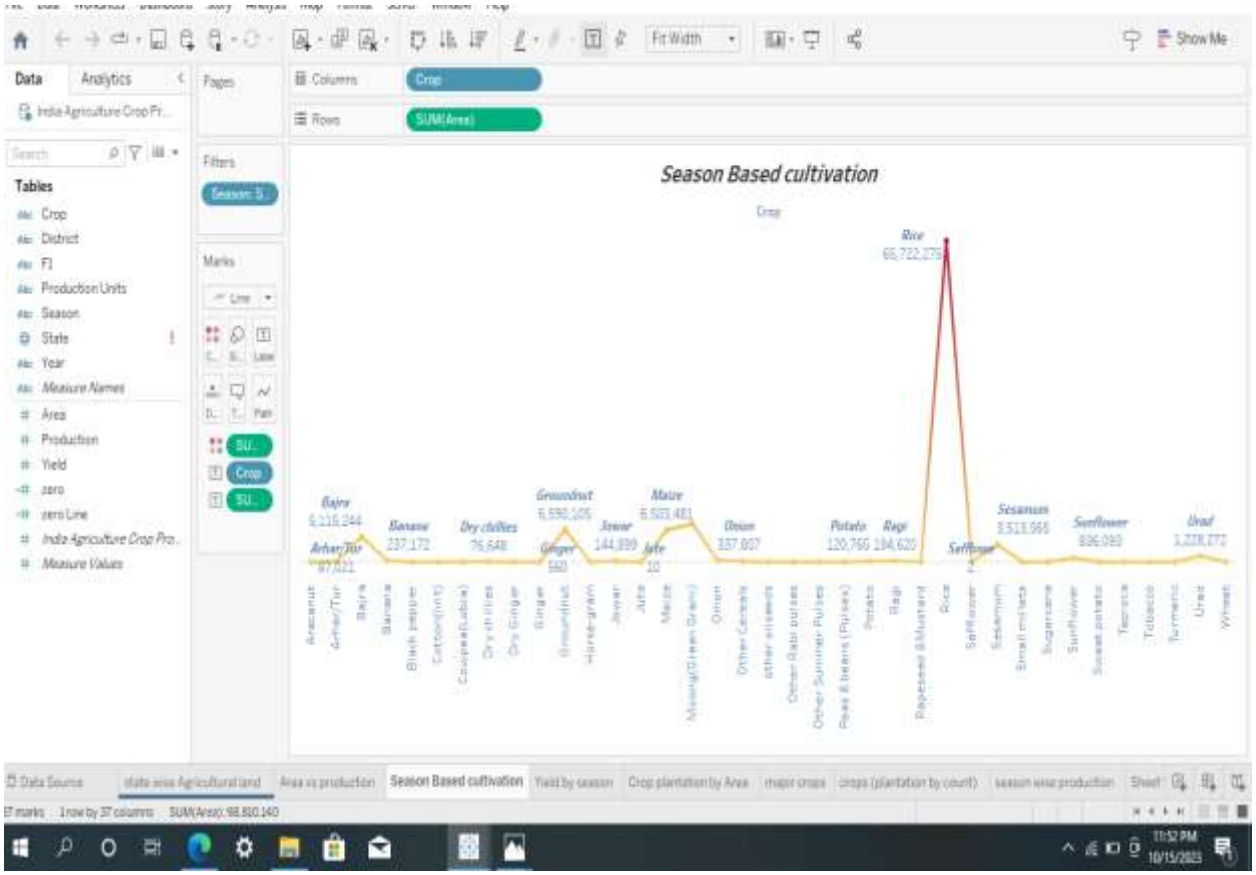
Activity 1.1 : State wise Agriculcutural land



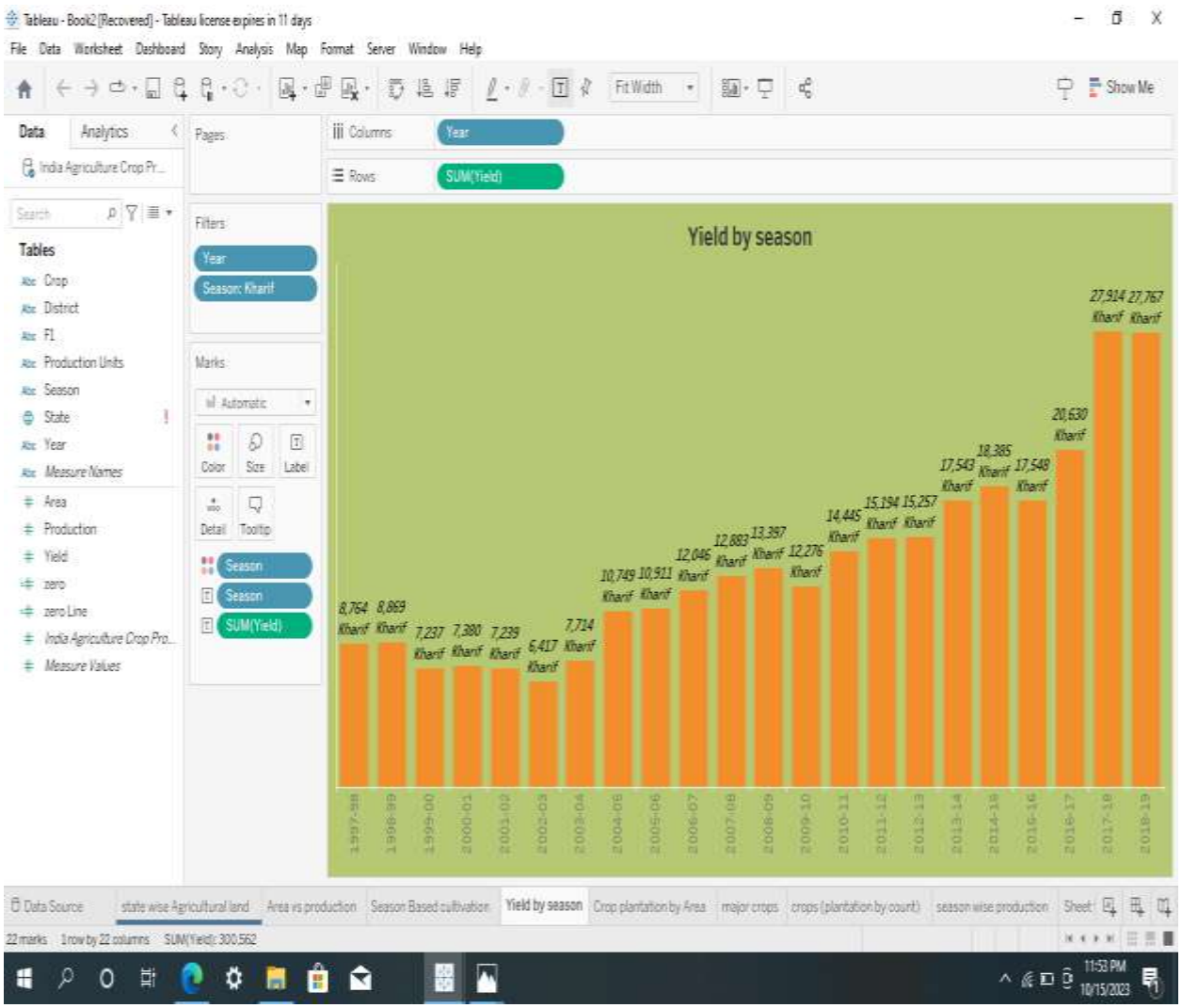
Activity 1.2 : Area vs Production



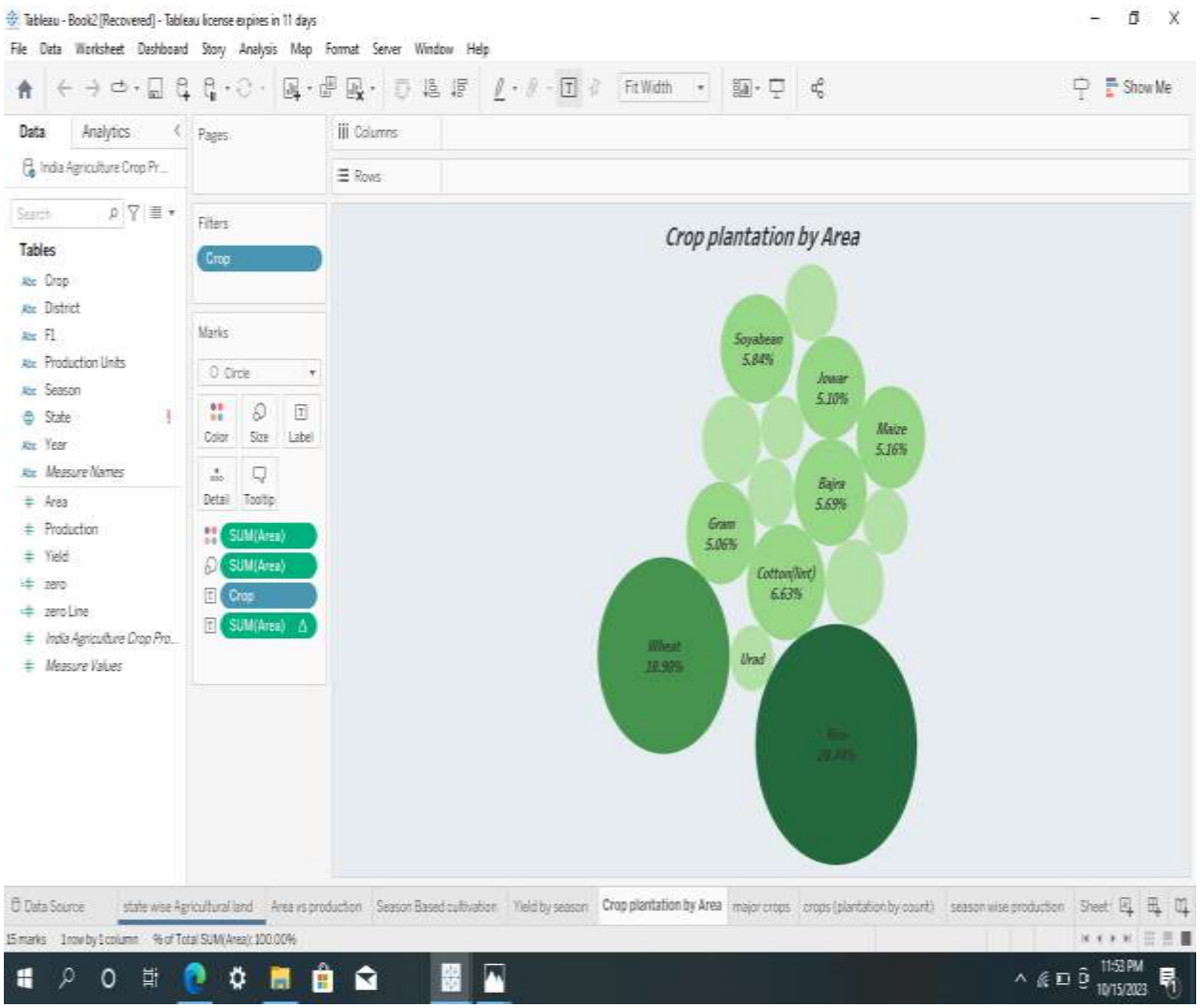
Activity 1.3: Season based cultivation



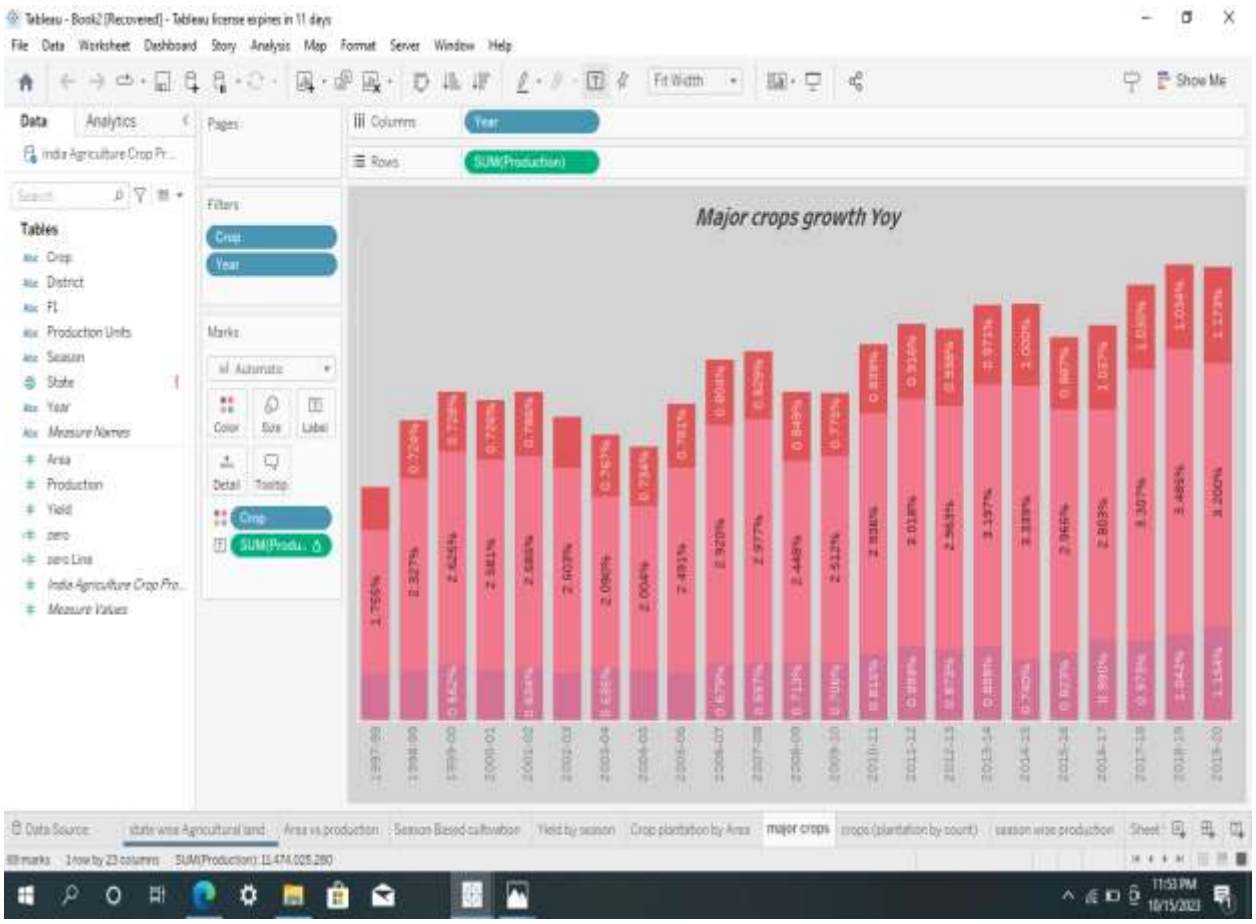
Activity 1.4: Yield by season



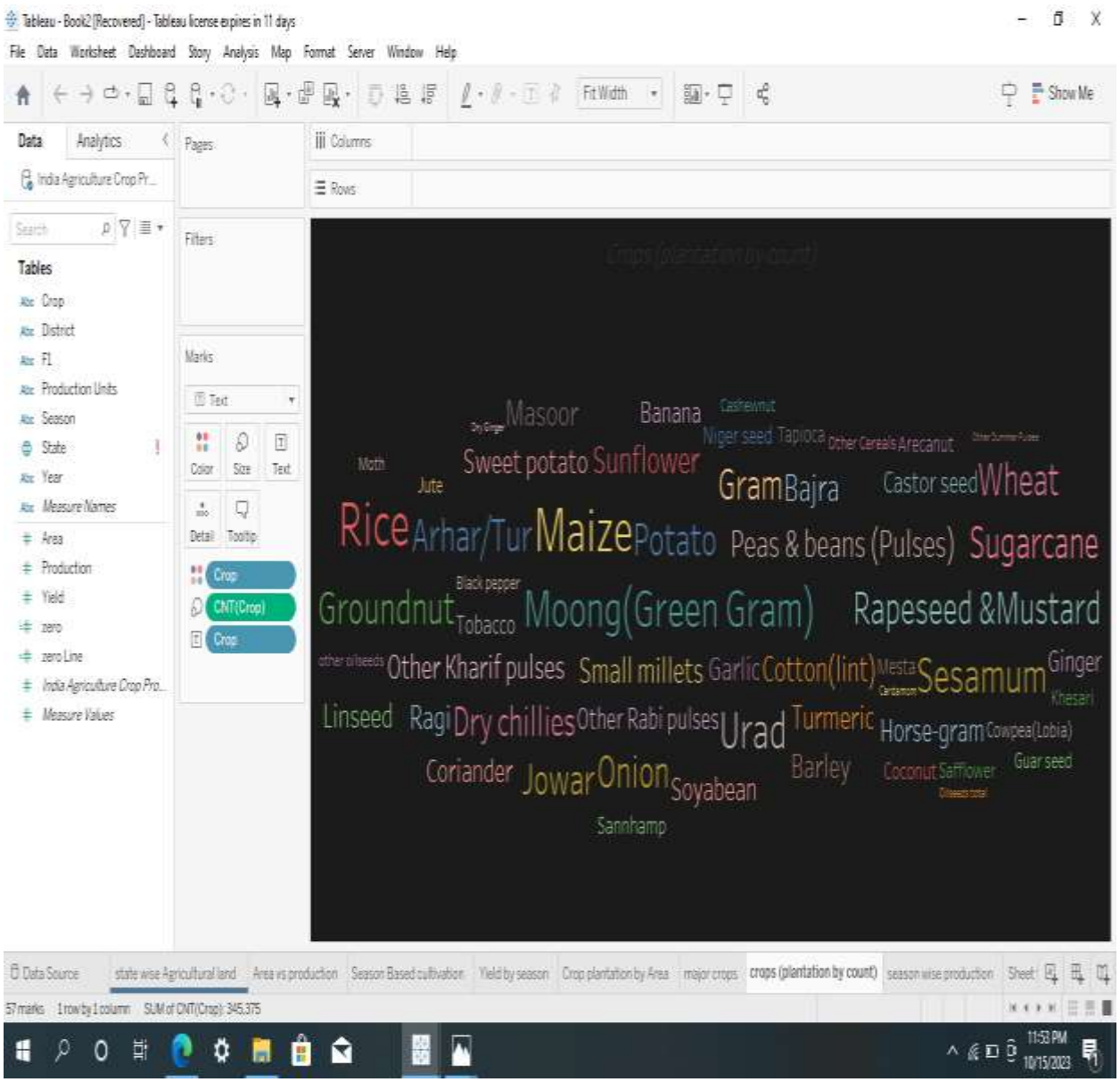
Activity 1.5 : Crop plantation by area



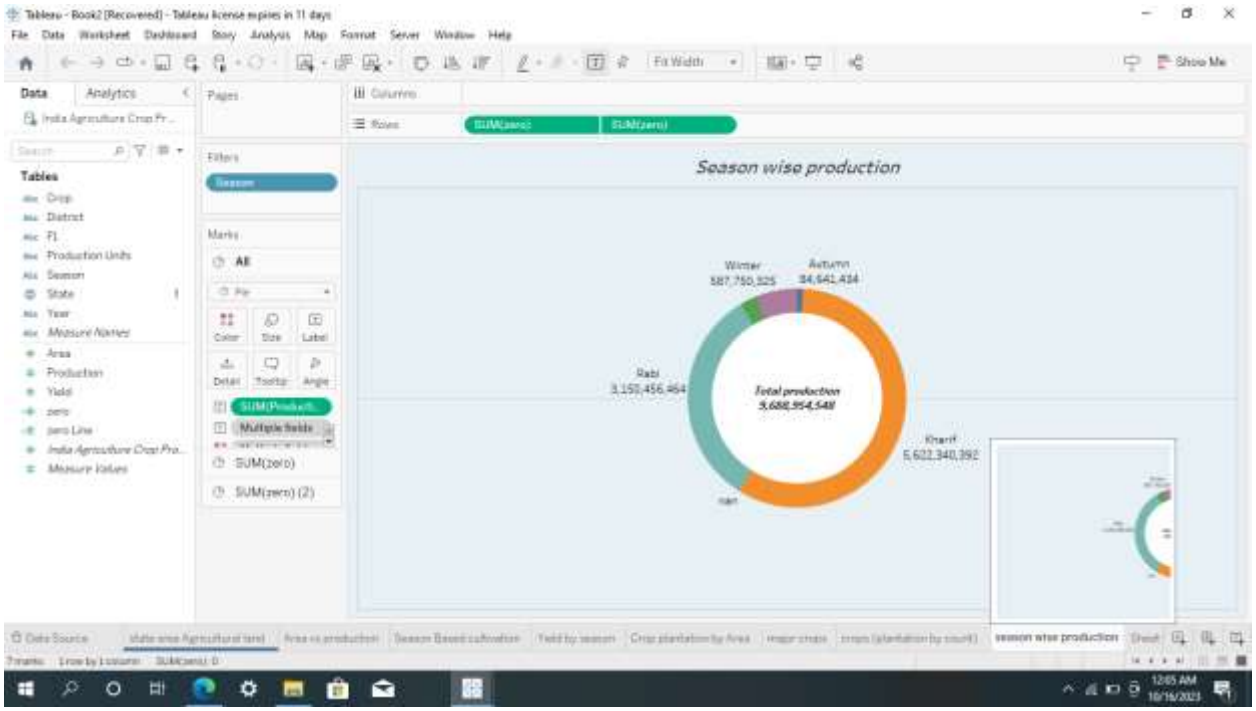
Activity 1.6: Major crops growth Yoy



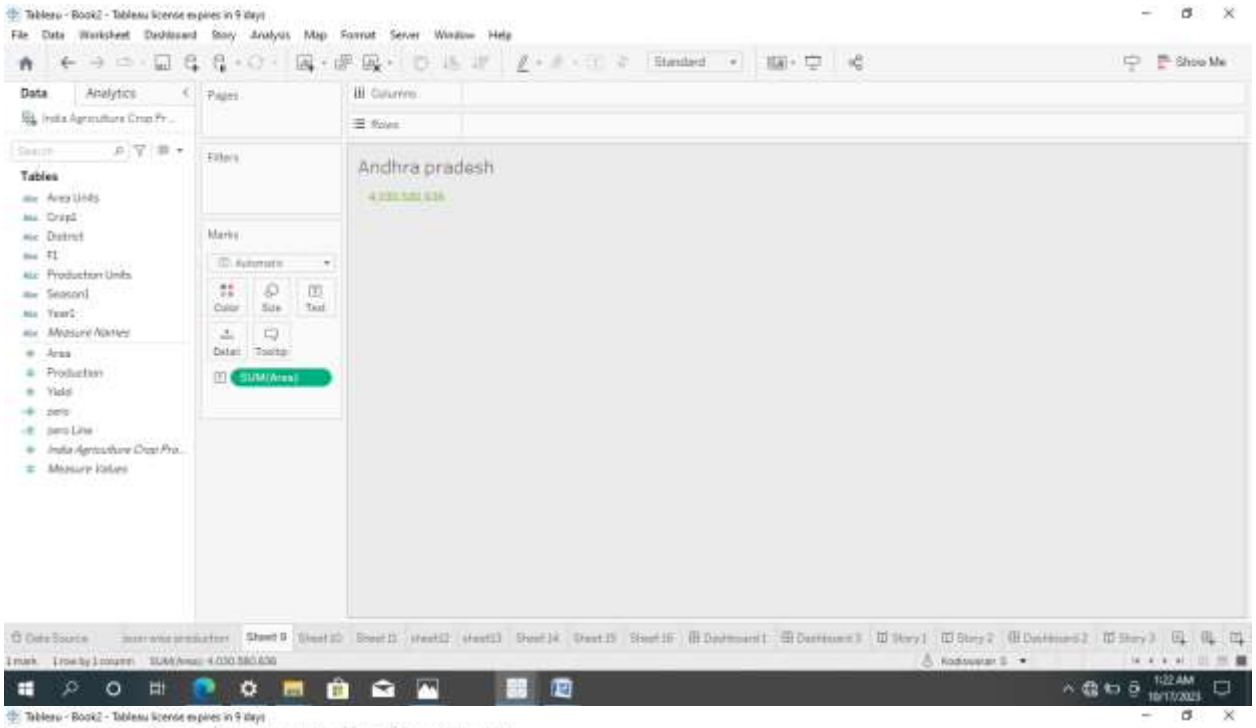
Activity1.7: Crops



Activity1.8: Season wise production



Activity 1.9: Kpi’s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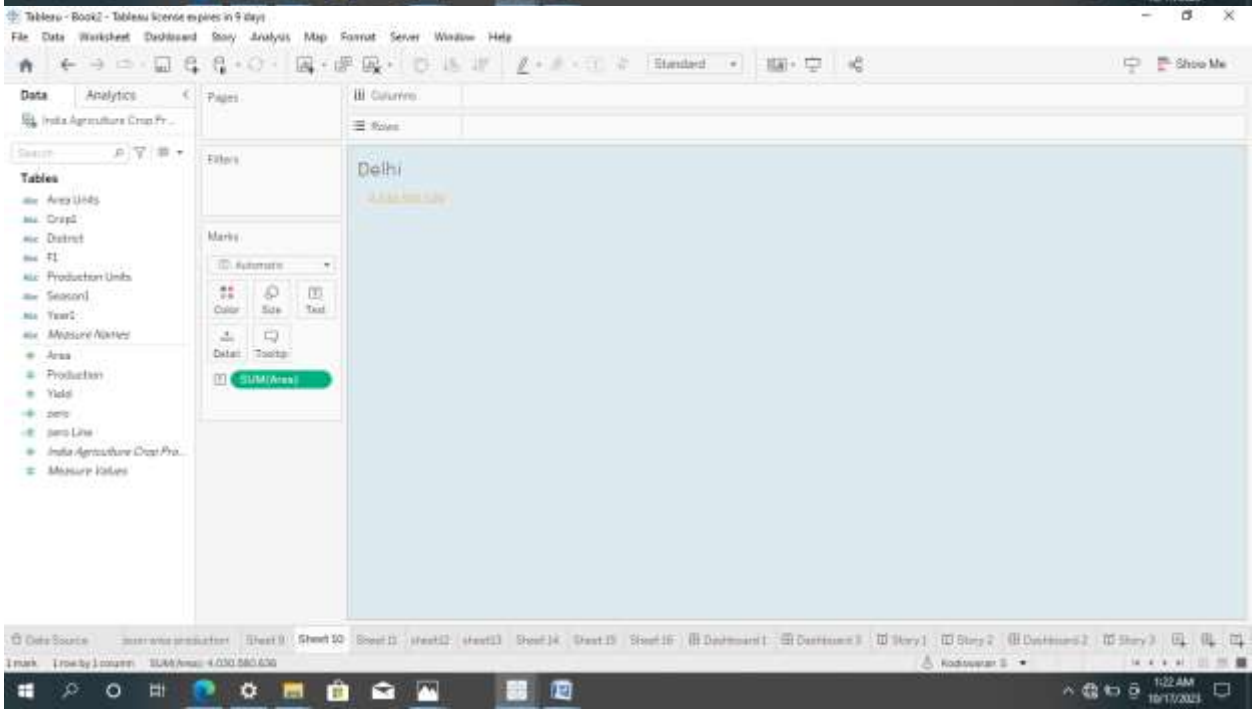
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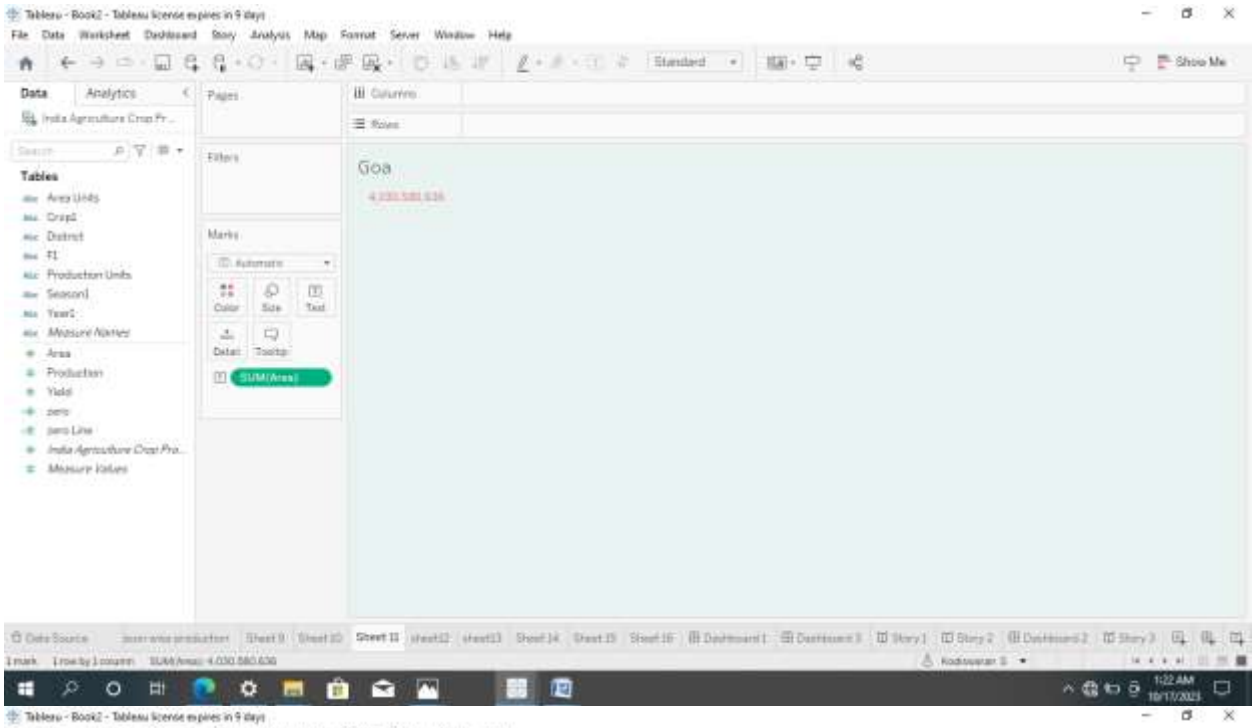
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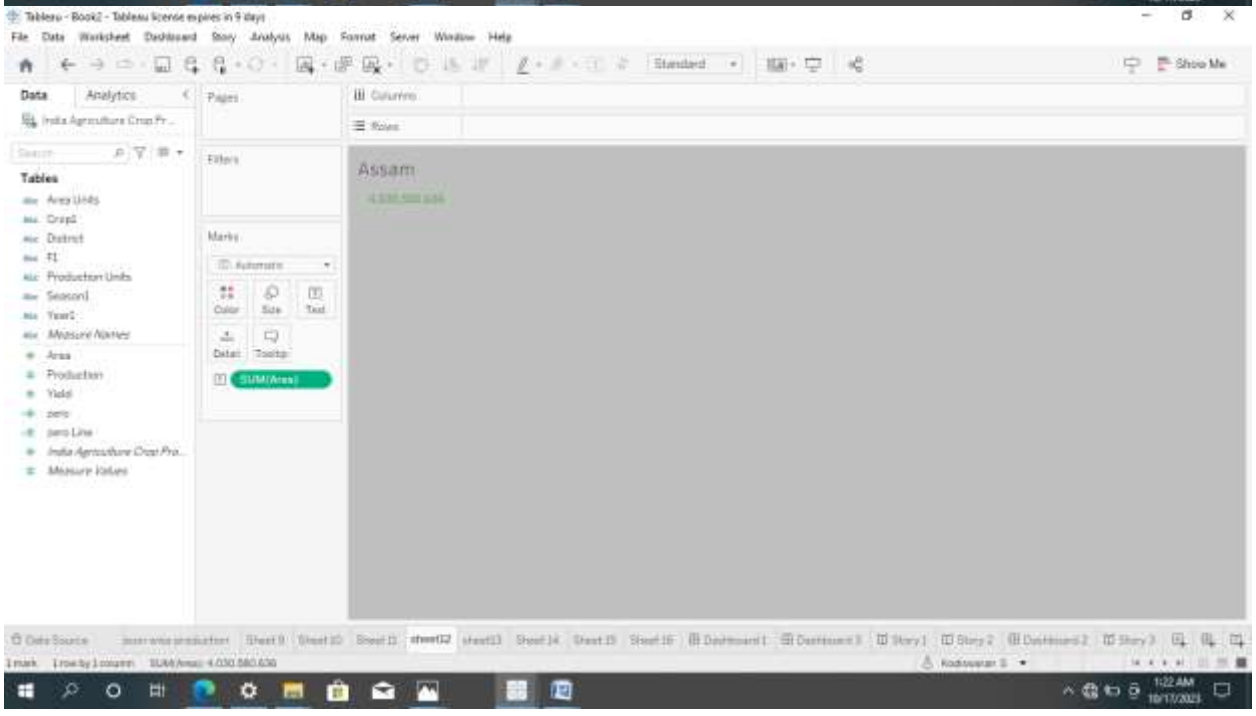
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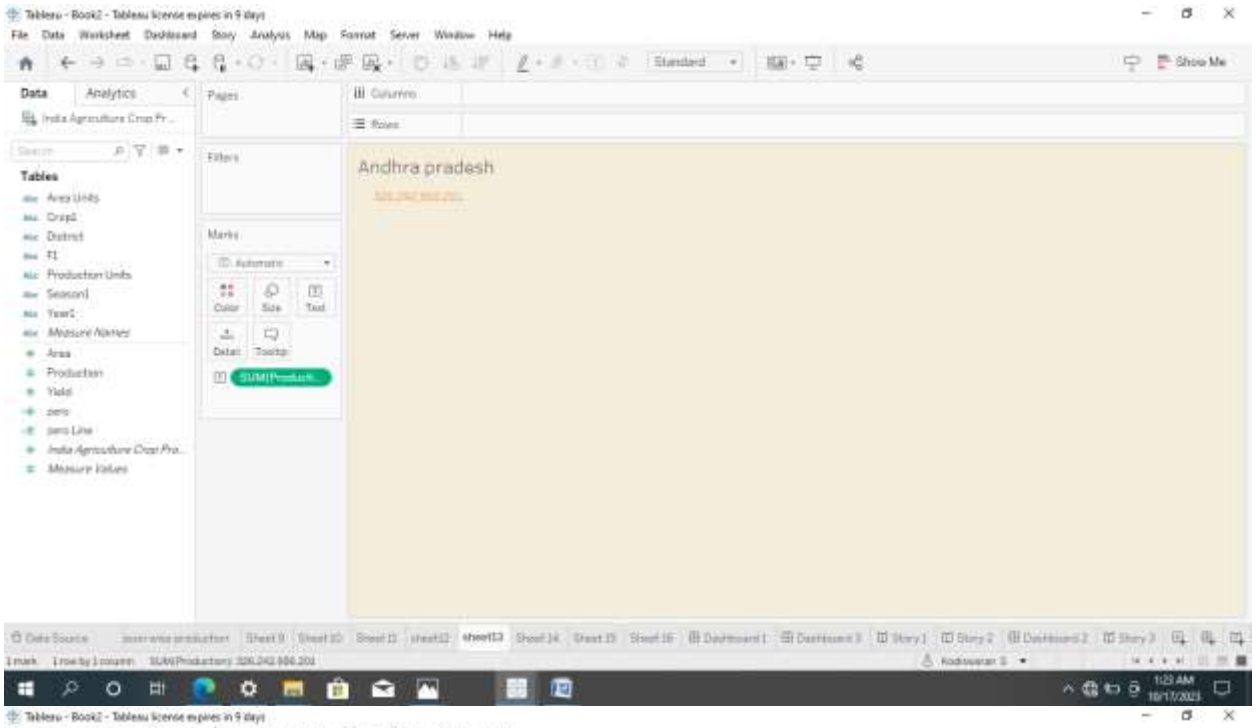
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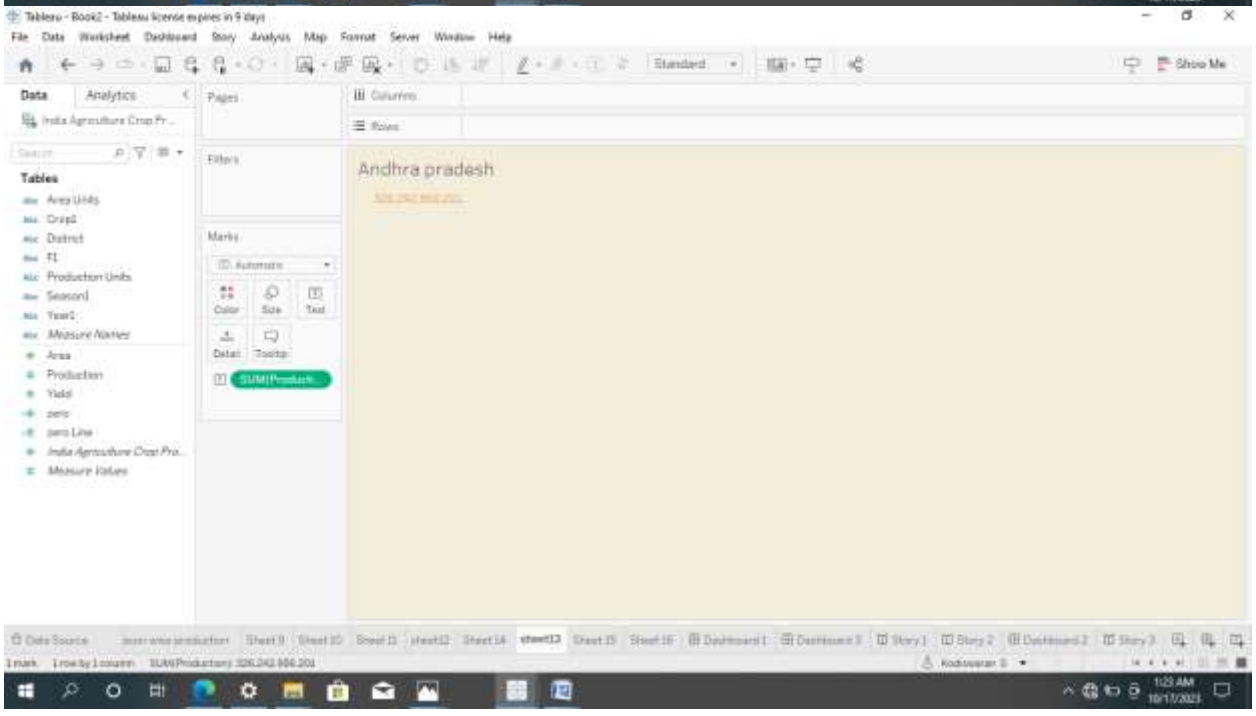
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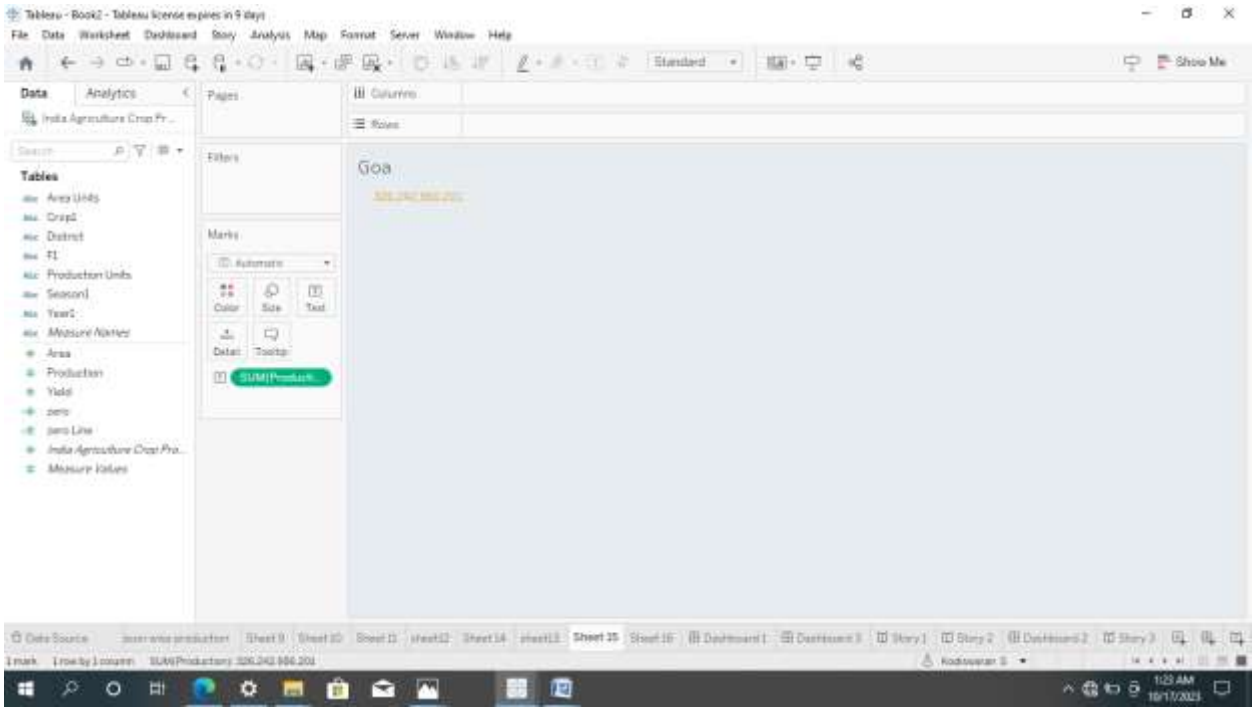
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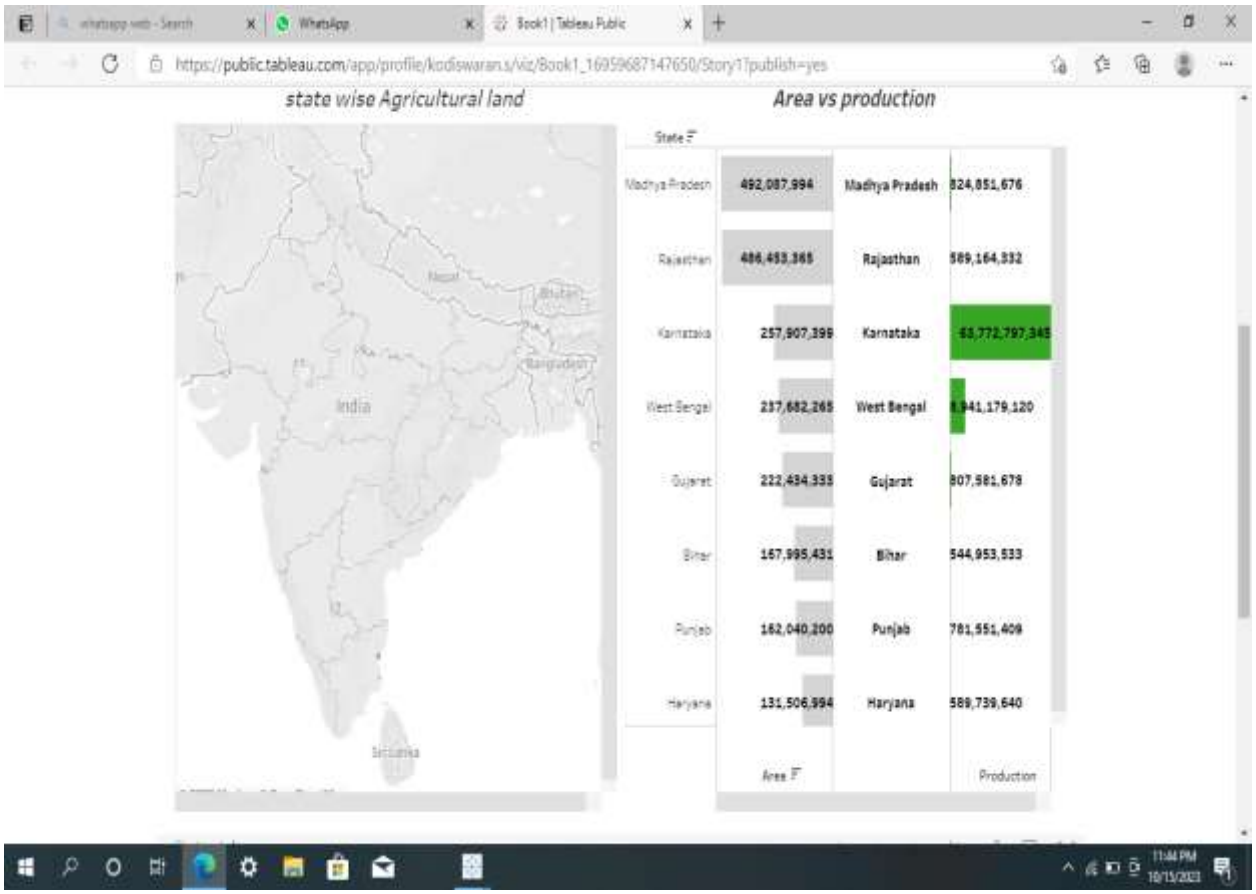
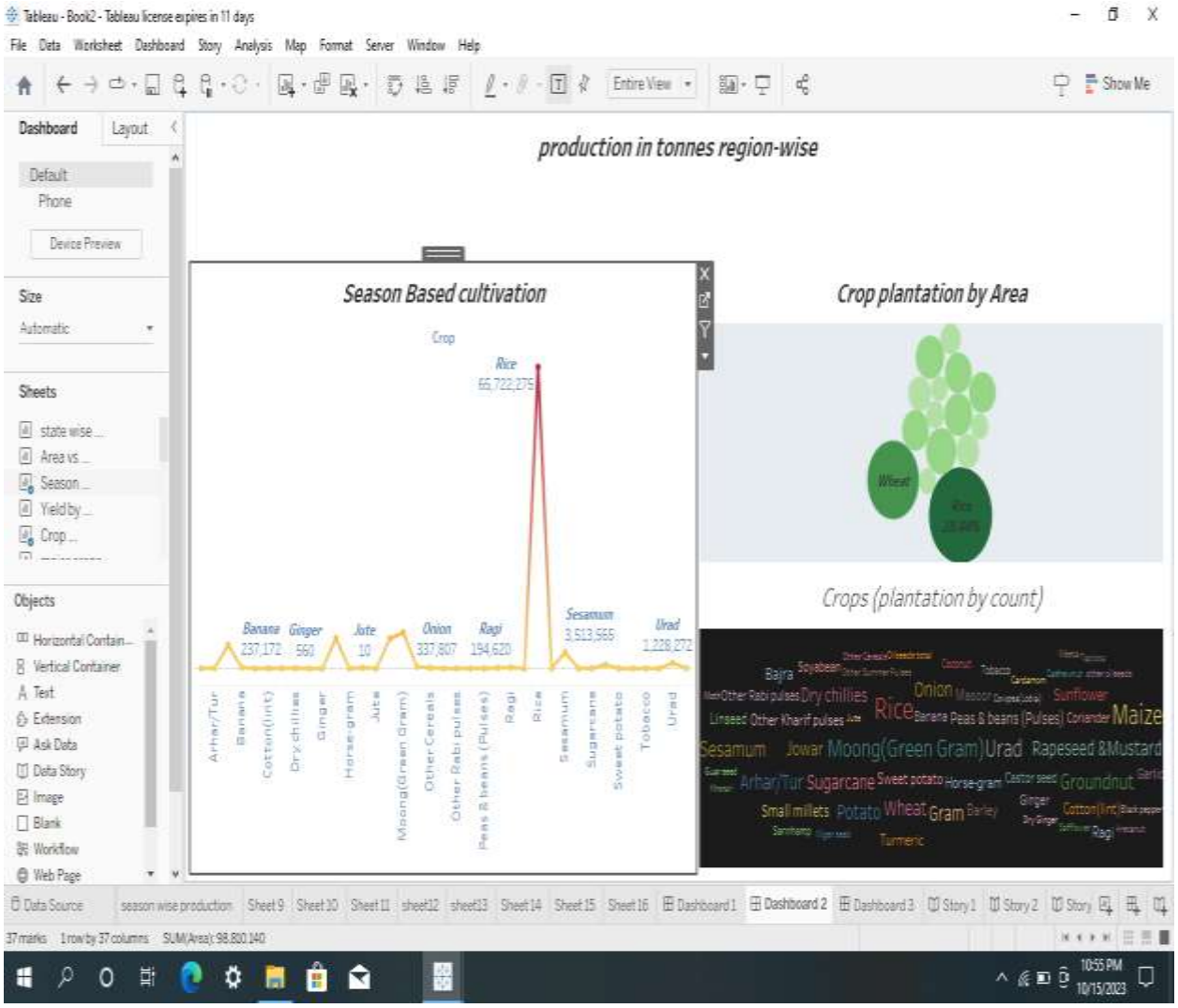
Milestone 5: Dashboard

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the form of charts, graphs, and tables

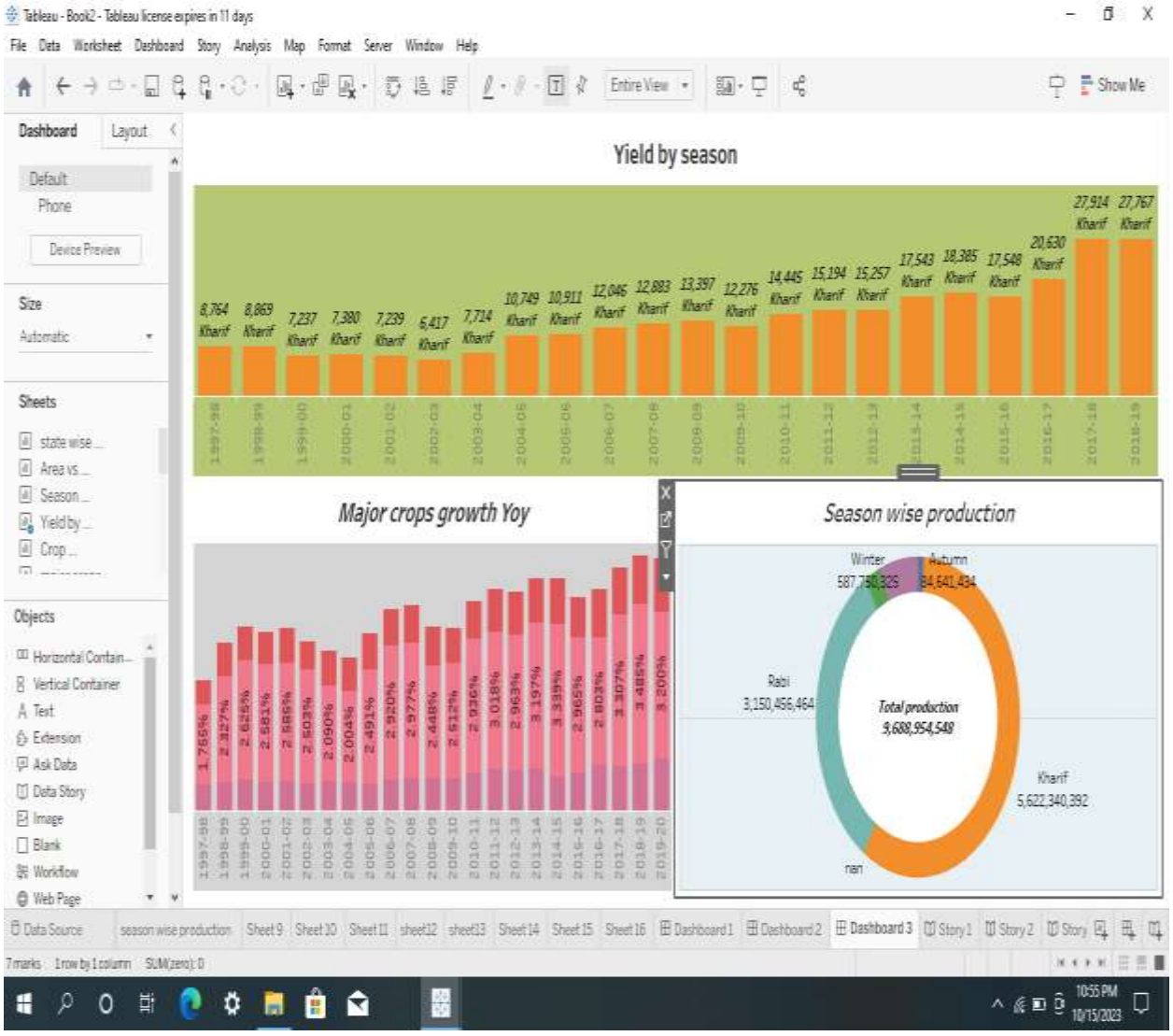
Activity 1.1: Dashboard 1



Activity 1.2: Dashboard 2



Activity 1.3: Dashboard 3



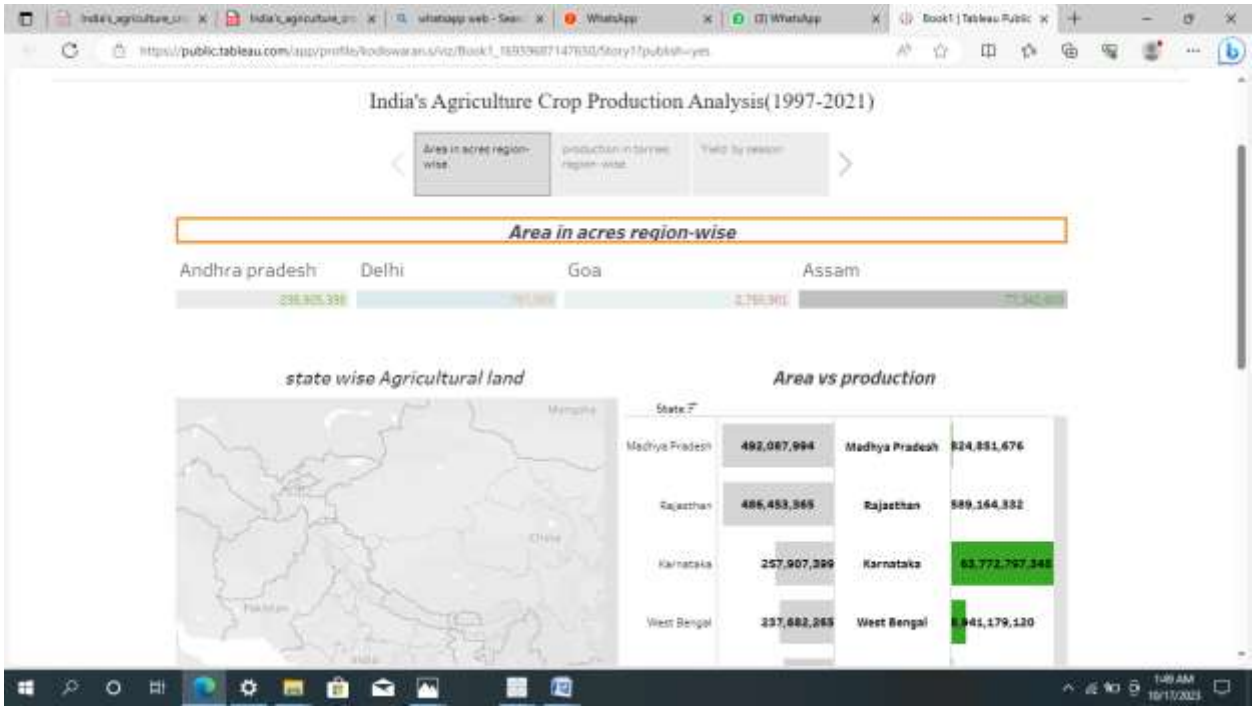
Milestone 6: Story

A data story is a way of presenting data and analysis in a narrative format, intending to make the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis logically and systematically, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos.

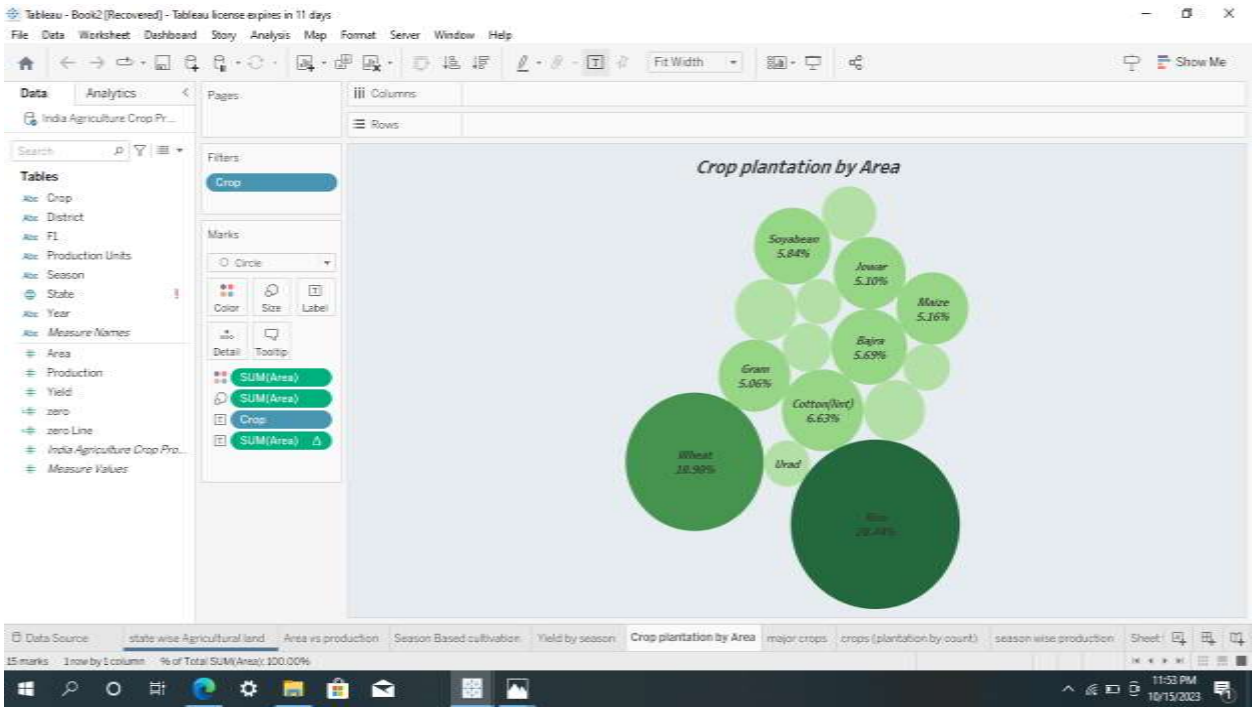
Activity 1: Number of scenes in a story

The number of scenes in a storyboard for a data visualization analysis of the performance of banks will depend on the complexity of the analysis and the specific insights that are trying to be conveyed. A storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes.

Activity 1.1: Story 1



Activity 1.1: story 2



Milestone 8: Publishing

Dashboard link 1:

https://public.tableau.com/app/profile/kodiswaran.s/viz/Book2_16975204962600/Dashboard1?publish=yes

Dashboard link 2:

https://public.tableau.com/app/profile/kodiswaran.s/viz/Book2_16975204962600/Dashboard2?publish=yes

Dashboard link 3:

https://public.tableau.com/app/profile/kodiswaran.s/viz/Book2_16975204962600/Dashboard3?publish=yes

Story link 1:
https://public.tableau.com/app/profile/kodiswaran.s/viz/Book1_16959687147650/Story1?publish=yes

Video link : https://drive.google.com/file/d/1-7_8L-0aRpLnjcVNqUXyDlO9rcAn07Kz/view?usp=drivesdk

CONCLUSION:

i. **COURSE HELPFUL**
   - ❖ Allows for Data driven decisions
   - ❖ Better Customer knowledge
   - ❖ Competitive edge
   - ❖ Increased Employability
   - ❖ Develop Goals and Objectives

ii. **MENTRING SUPPORT**
   - ❖ Keep an Active Line of Communication
   - ❖ Maintain a Schedule
   - ❖ Share Your Personal Goals
   - ❖ Maintain Mutual Respect
   - ❖ Make Time for Constructive Feedback

iii. **SMART INTERNZ PLATFORM**
   - ❖ It helps students acquire technical and professional competencies while working on real-world challenges and creating innovative solutions.

- **The program encourages students to think critically and creatively, and it is designed to provide industry-level training at the college level.**

THANKING NAAN MUDHALVAN & TAMILNADU GOVERNMENT