

Project Title: Agriculture Data Analytics in Crop Yield Estimation using IBM Cognos

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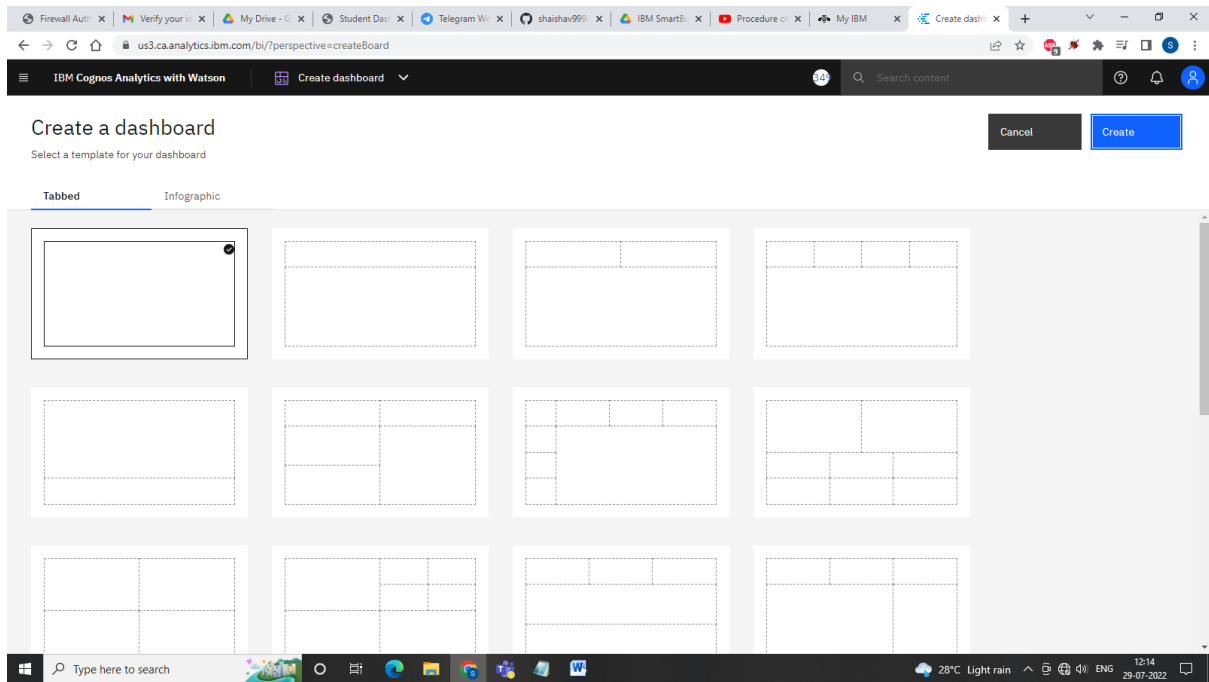
Step-1: Understanding and then uploading the dataset crop_production.csv in IBM Cognos Analytics with Watson Account

In the given data set there are 7 columns i.e State_Name, District_Name, Crop_Year, Season, Crop, Area, Production and 2,46,901 rows. The data set provides the information of various states of india (District-wise) producing various crops with the amount of production and area of cultivation according to seasons (Year-wise).

The image displays two screenshots. The top screenshot shows a Microsoft Excel spreadsheet titled 'crop_production - Microsoft Excel'. The spreadsheet has columns labeled A through X, with data starting from row 1. The data includes State_Name, District_Name, Crop_Year, Season, Crop, Area, and Production. The bottom screenshot shows the IBM Cognos Analytics interface. The browser address bar shows 'us3.ca.analytics.ibm.com/bi/?perspective=content'. The page title is 'IBM Cognos Analytics with Watson'. The 'Content' tab is selected, showing a list of content items: 'crop_production.csv', 'demo-day-6', 'Project', and 'US Superstore data.xls'. Each item shows its last accessed time and a download icon.

State_Name	District_Name	Crop_Year	Season	Crop	Area	Production
Andaman NIOBARs	2000 Kharif	Areacanut	1254	2000		
Andaman NIOBARs	2000 Kharif	Other Kha	2	1		
Andaman NIOBARs	2000 Kharif	Rice	102	321		
Andaman NIOBARs	2000 Whole Yei	Banana	176	641		
Andaman NIOBARs	2000 Whole Yei	Cashewnu	720	165		
Andaman NIOBARs	2000 Whole Yei	Coconut	18168	6510000		
Andaman NIOBARs	2000 Whole Yei	Dry ginger	36	100		
Andaman NIOBARs	2000 Whole Yei	Sugarcane	1	2		
Andaman NIOBARs	2000 Whole Yei	Sweet pot	5	15		
Andaman NIOBARs	2000 Whole Yei	Tapioca	40	169		
Andaman NIOBARs	2001 Kharif	Areacanut	1254	2061		
Andaman NIOBARs	2001 Kharif	Other Kha	2	1		
Andaman NIOBARs	2001 Kharif	Rice	83	300		
Andaman NIOBARs	2001 Whole Yei	Cashewnu	719	192		
Andaman NIOBARs	2001 Whole Yei	Coconut	18190	64430000		
Andaman NIOBARs	2001 Whole Yei	Dry ginger	46	100		
Andaman NIOBARs	2001 Whole Yei	Sugarcane	1	1		
Andaman NIOBARs	2001 Whole Yei	Sweet pot	11	33		
Andaman NIOBARs	2002 Kharif	Rice	189.2	510.84		
Andaman NIOBARs	2002 Whole Yei	Areacanut	1258	2083		
Andaman NIOBARs	2002 Whole Yei	Banana	213	1278		
Andaman NIOBARs	2002 Whole Yei	Black pep	63	13.5		
Andaman NIOBARs	2002 Whole Yei	Cashewnu	719	208		
Andaman NIOBARs	2002 Whole Yei	Coconut	18240	67490000		
Andaman NIOBARs	2002 Whole Yei	Dry chillie	413	28.8		
Andaman NIOBARs	2002 Whole Yei	Dry ginger	47.3	133		
Andaman NIOBARs	2002 Whole Yei	Sugarcane	5	40		
Andaman NIOBARs	2003 Kharif	Rice	52	90.17		
Andaman NIOBARs	2003 Whole Yei	Areacanut	1261	1525		
Andaman NIOBARs	2003 Whole Yei	Banana	266	1763		

Step-2: Creating Dashboard in IBM Cognos Analytics with Watson and selcting datasource as crop_production.csv

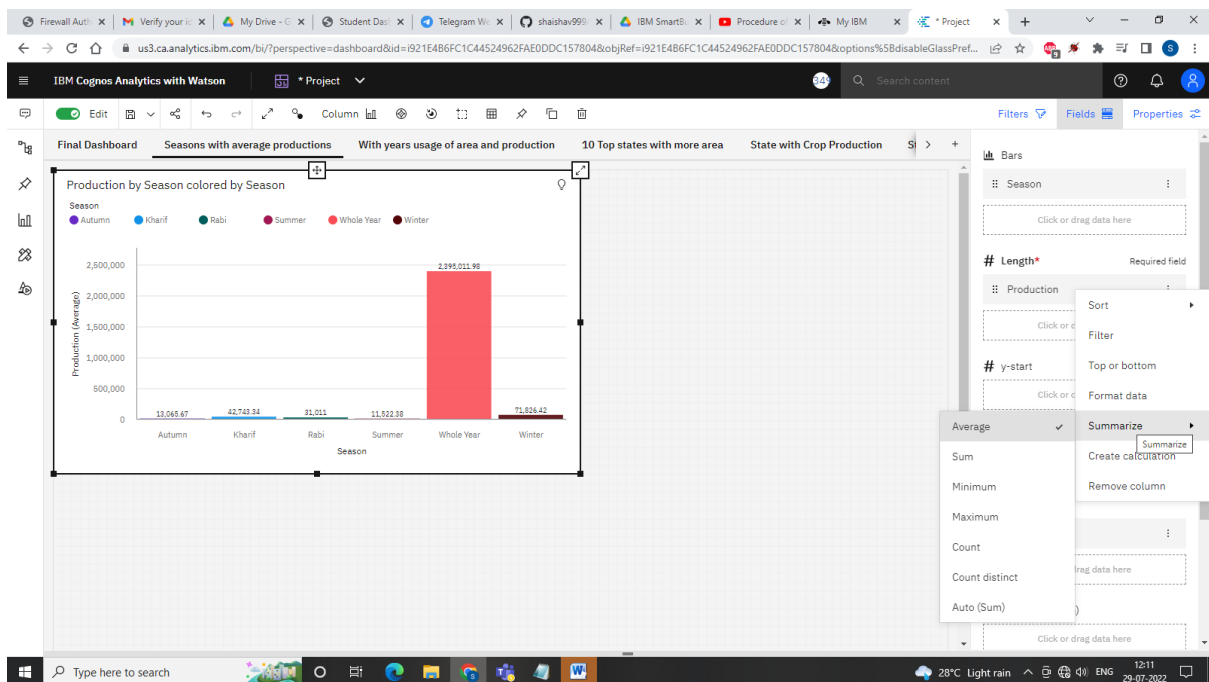


Step-3: Season with Average Productions chart

We create a dashboard and rename it as Season with Average Productions.

We create bar chart and select seasons (from dataset) as bars and Production as Length.

We know summarize the Production as average and show the graph as shown in below screenshot.



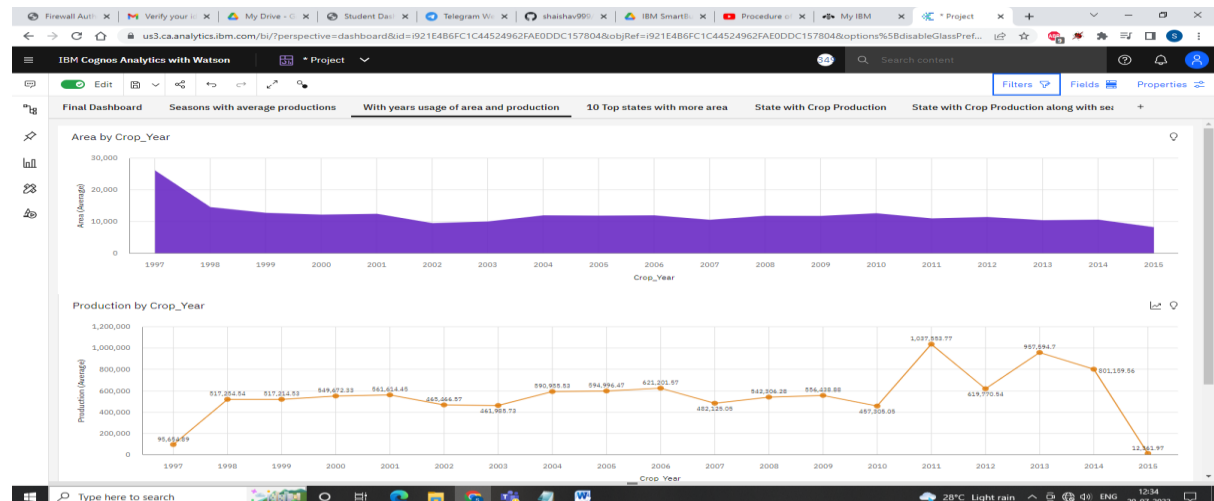
Step-4: With Years Usage of Area and Production chart

We create a dashboard and rename it as With Years Usage of Area and Production chart.

We create area chart and select crop year (from dataset) as x-axis and area as Y-axis.

We create line chart and select crop year (from dataset) as x-axis and Production as Y-axis.

We know summarize in both charts area and Production as average and show the graph as shown in below screenshot.



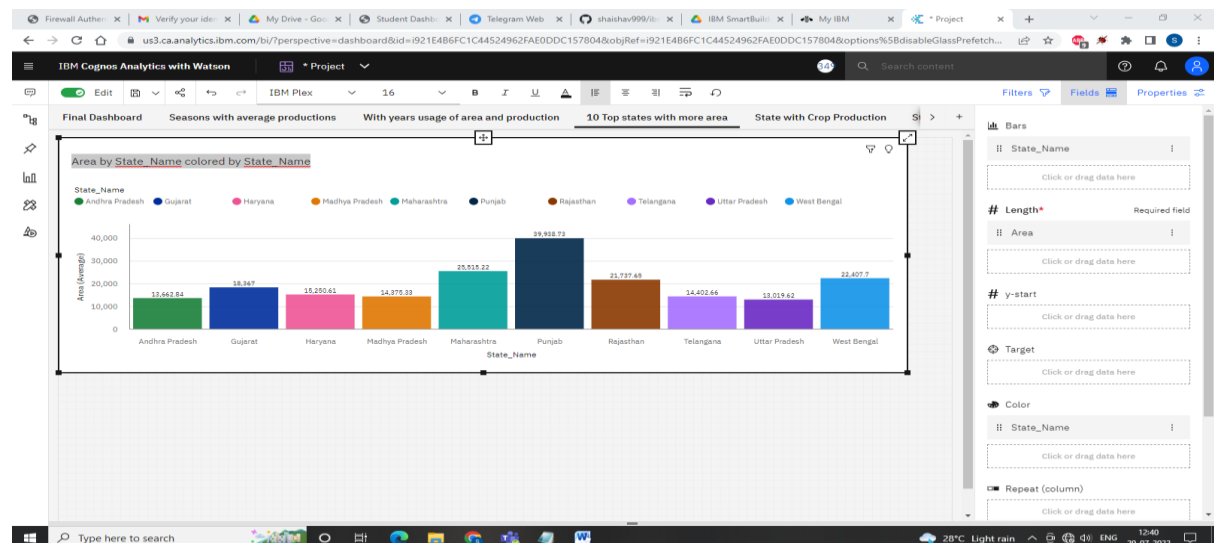
Step-5: Top 10 States with Most Area chart

We create a dashboard and rename it as Top 10 States with Most Area chart.

We create bar chart and select State name (from dataset) as x-axis and area as Y-axis.

We know summarize in charts area as average.

In the State_Name we select top or bottom option and enter 10 to select Top 10 states and show the graph as shown in below screenshot.

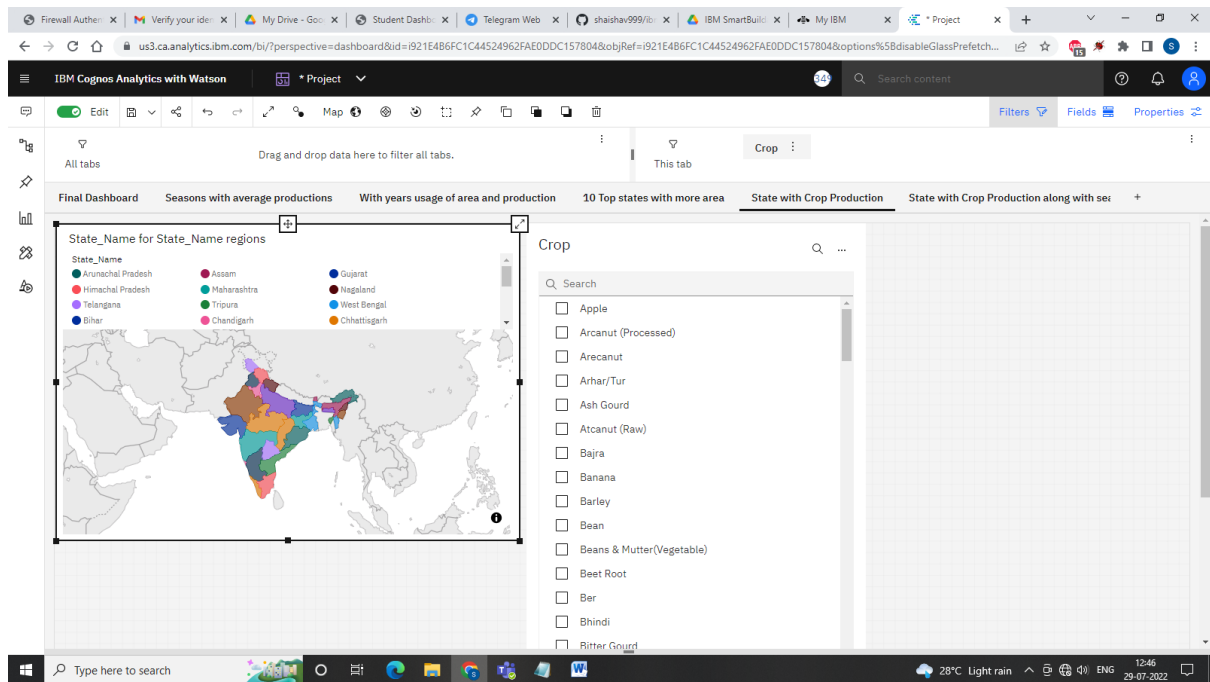


Step-6: State with Crop Production

We create a dashboard and rename it as State with Crop Production.

We select Map as a chart and select State name (from dataset) as location.

In filter we choose crops as option and show the graph as shown in below screenshot.



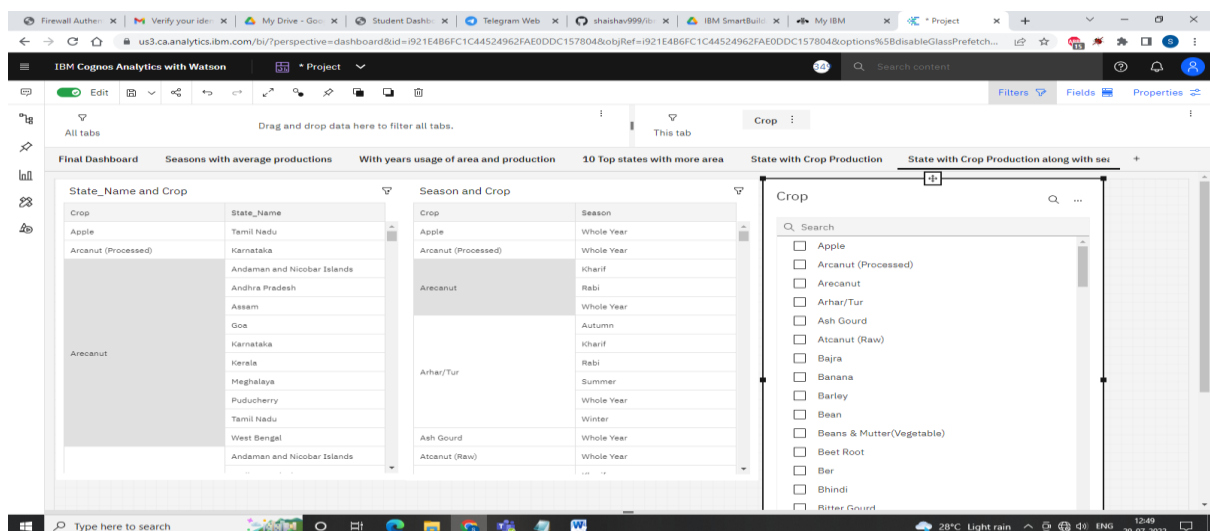
Step 7: States with the Crop Production Along With Season (Text Table)

We create a dashboard and rename it as States with the Crop Production Along With Season.

We select Table and choose crop and State name as columns.

We select another Table and choose crop and season as columns.

We then use crops as filter and show the tables as shown in below screenshot.



Step-8: Final Dashboard

We create final dashboard having all the graphs and tables we have constructed before.

