**Project Development Phase**
**Model Performance Test**

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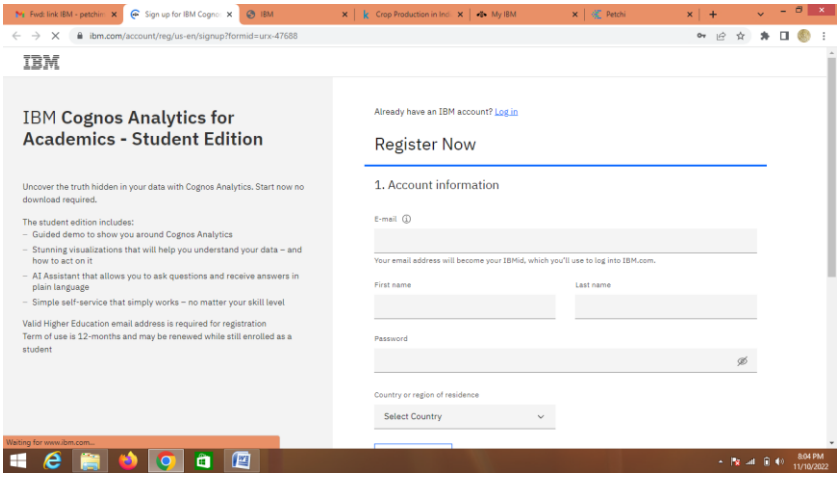
|---|---|
| Date | 10 November 2022 |
| Team ID | PNT2022TMID13569 |
| Project Name | Estimate The Crop Yield Using Data Analytics |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

Project team shall fill the following information in the model performance testing template.

| S.No. | Parameter | Screenshot / Values |
|---|---|---|
| 1. | Dashboard design | No of Visualizations / Graphs – 5 |
| 2. | Data Responsiveness | Yes, the website is responsive completely,that is by resizing the browser window size as per the test scenario.<br>**CROP PRODUCTION DATASET**<br>The dataset contains 7 rows and 246091 record and dataset contains different state name, different district name, crop year ,crop, area, season and production |
| 3. | Amount Data to Rendered (DB2 Metrics) | **To connect IBM Db2 database cloud with cognos analytics:**<br>By using IBM Db2 to create Dashboard,Report,Story,Visualization andExploratory data analytics(EDA) |
| 4. | Utilization of Data Filters | Utilization of data filters – 5 |
| 5. | Effective User Story | No of Scene Added – 8<br>To create the Registration page of the Website<br>To create the Login page of the Website<br>To create the Dashboard page of the Website<br>To work on the given dataset,Understand the Dataset<br>Load the dataset to Cloud platform then Build the required Visualizations<br>Using the Crop production in Indian dataset,create various graphs and charts to highlight the insights and visualizations.<br>Build a Visualizations to showcase<br>Average Crop Production by Seasons<br>Showcase the Yearly usage of Area in Crop Production |
| 6. | Descriptive Reports | No of Visualizations / Graphs – 5<br>Visualization1 - Average Crop Production by Seasons<br>Visualization2 - Yearly usage of area in crop production<br>Visualization3 - Top 10 States in Crop Yield Production by Area<br>Visualization 4 - Crop Production by State<br>Visualization5 - Represent the States with Seasonal Crop Production using a Text representation |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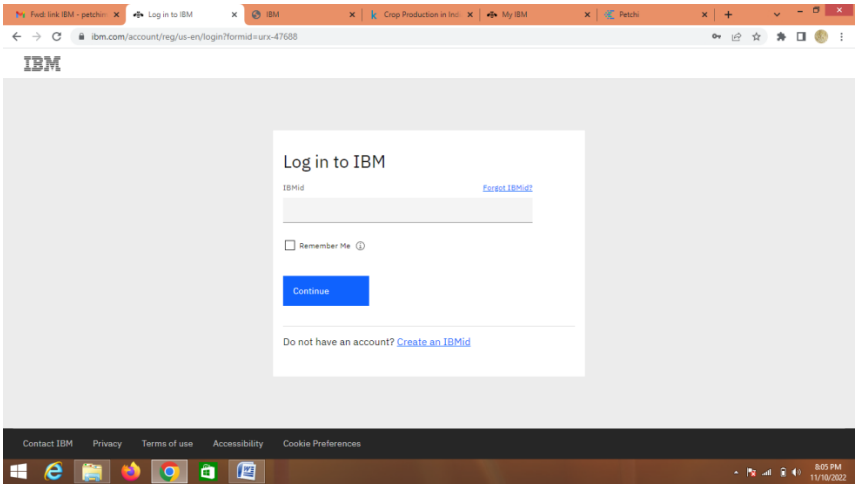
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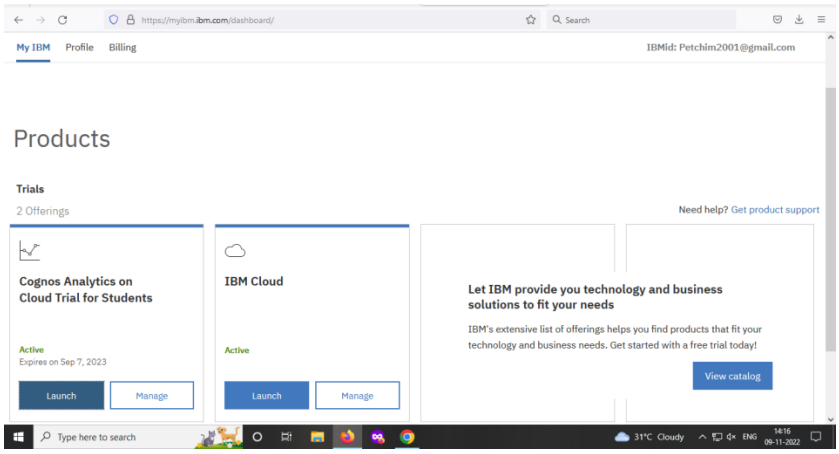
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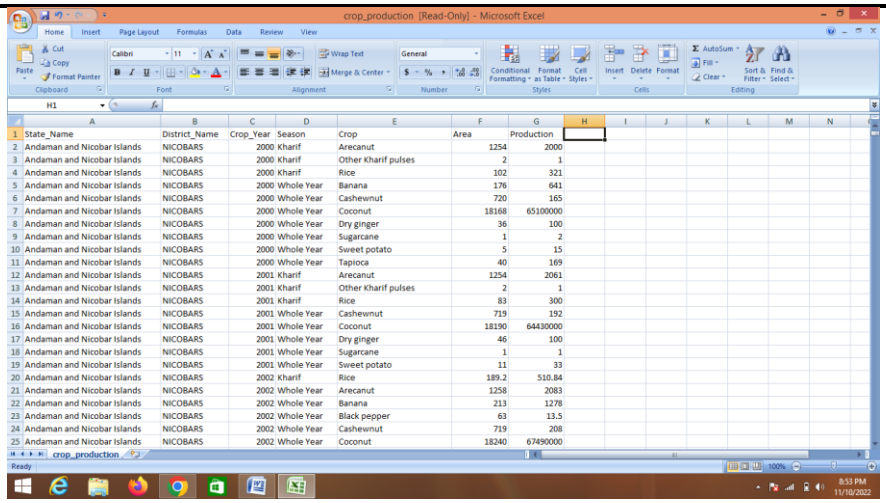
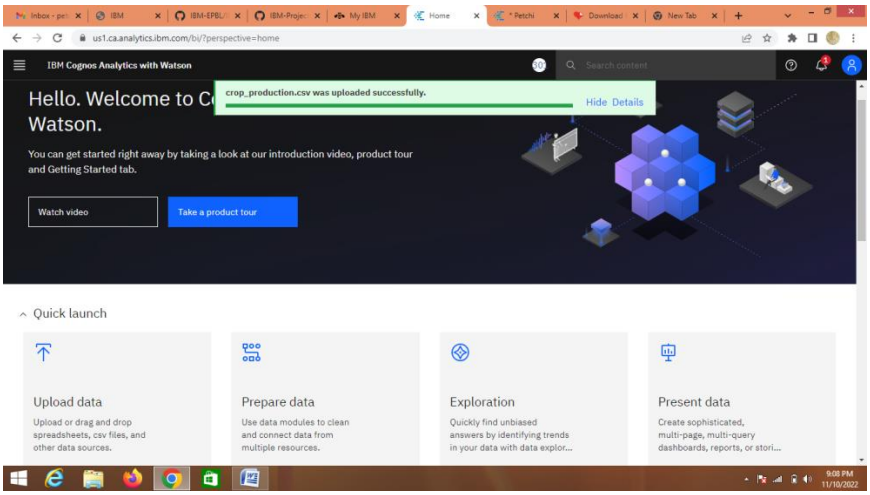
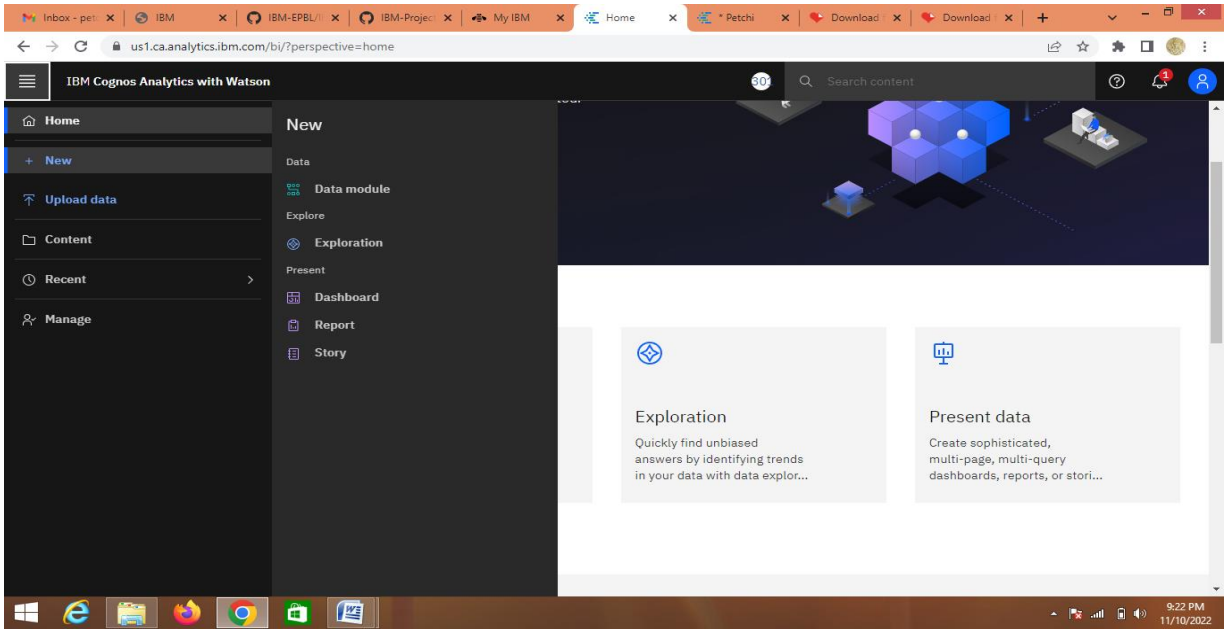



| State_Name | District_Name | Crop_Year | Season | Crop | Area | Production |
|---|---|---|---|---|---|---|
| Andaman and Nicobar Islands | NICOBARS | 2000 | Kharif | Arecanut | 1254 | 2000 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Kharif | Other Kharif pulses | 2 | 1 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Kharif | Rice | 102 | 321 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Whole Year | Banana | 176 | 641 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Whole Year | Cashewnut | 720 | 165 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Whole Year | Coconut | 18168 | 65100000 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Whole Year | Dry ginger | 36 | 100 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Whole Year | Sugarcane | 1 | 2 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Whole Year | Sweet potato | 5 | 15 |
| Andaman and Nicobar Islands | NICOBARS | 2000 | Whole Year | Tapioca | 40 | 169 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Kharif | Arecanut | 1254 | 2061 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Kharif | Other Kharif pulses | 2 | 1 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Kharif | Rice | 83 | 300 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Whole Year | Cashewnut | 719 | 192 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Whole Year | Coconut | 18190 | 64430000 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Whole Year | Dry ginger | 46 | 100 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Whole Year | Sugarcane | 1 | 1 |
| Andaman and Nicobar Islands | NICOBARS | 2001 | Whole Year | Sweet potato | 11 | 33 |
| Andaman and Nicobar Islands | NICOBARS | 2002 | Kharif | Rice | 189.2 | 510.84 |
| Andaman and Nicobar Islands | NICOBARS | 2002 | Whole Year | Arecanut | 1258 | 2083 |
| Andaman and Nicobar Islands | NICOBARS | 2002 | Whole Year | Banana | 213 | 1278 |
| Andaman and Nicobar Islands | NICOBARS | 2002 | Whole Year | Black pepper | 63 | 13.5 |
| Andaman and Nicobar Islands | NICOBARS | 2002 | Whole Year | Cashewnut | 719 | 208 |
| Andaman and Nicobar Islands | NICOBARS | 2002 | Whole Year | Coconut | 18240 | 67490000 |

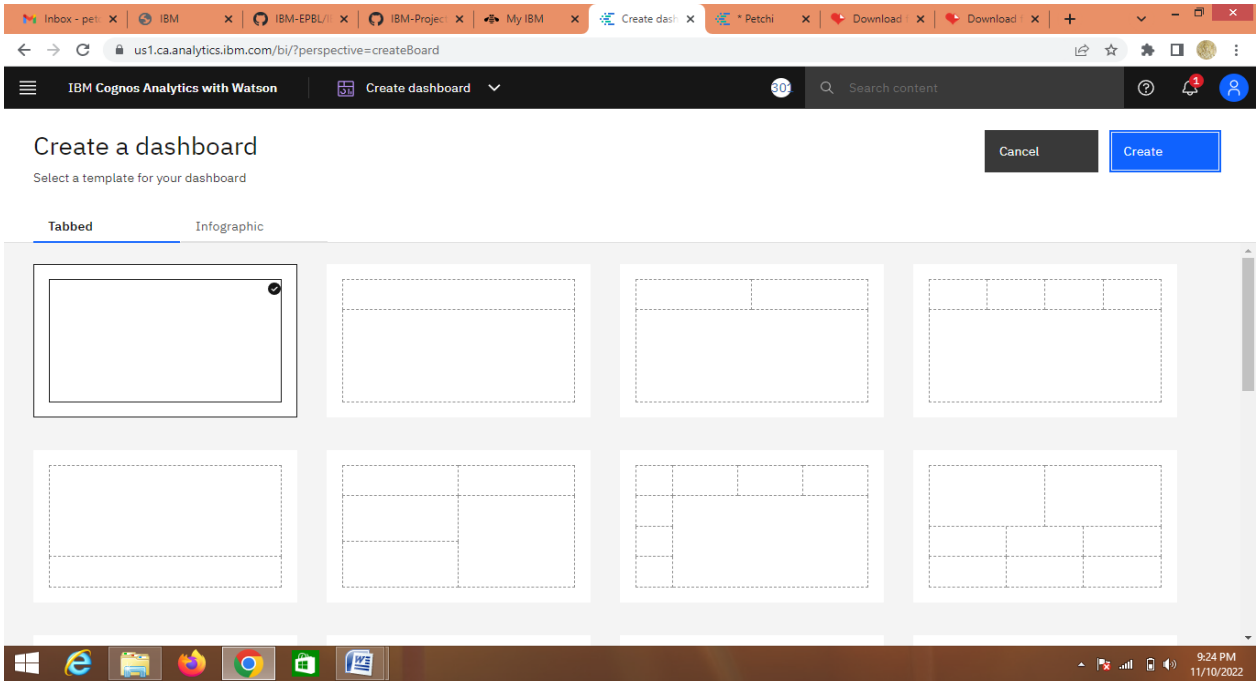


## VISUALISATION

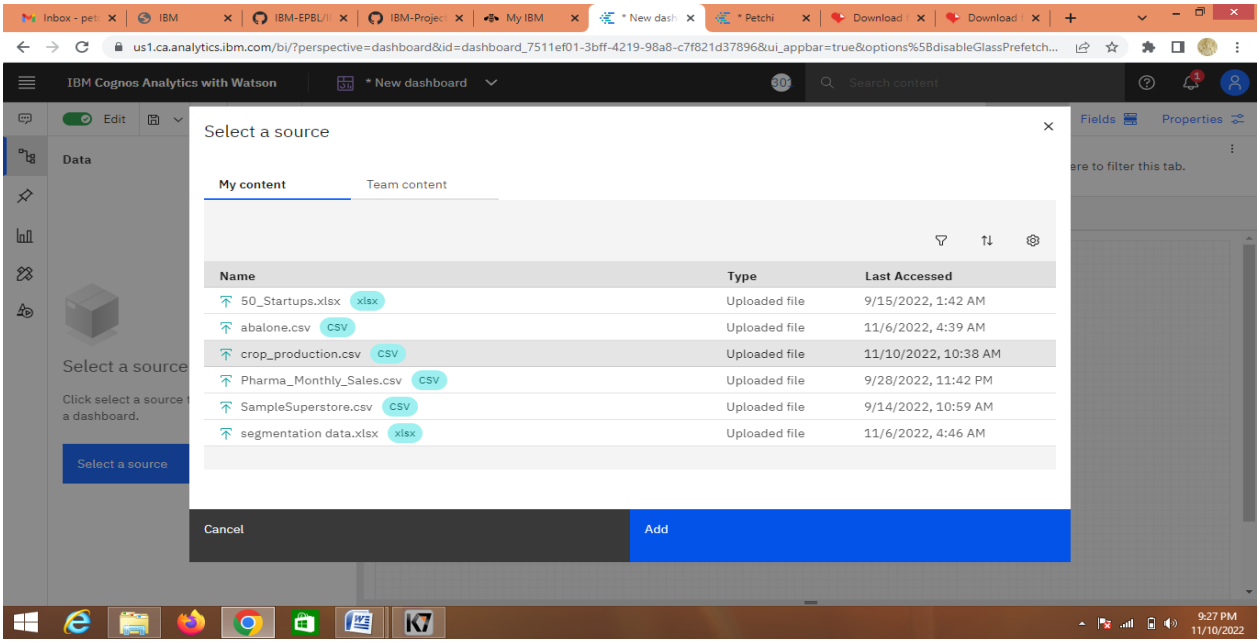
- Login to IBM Cognos then in open menu click **New -> Dashboard .**



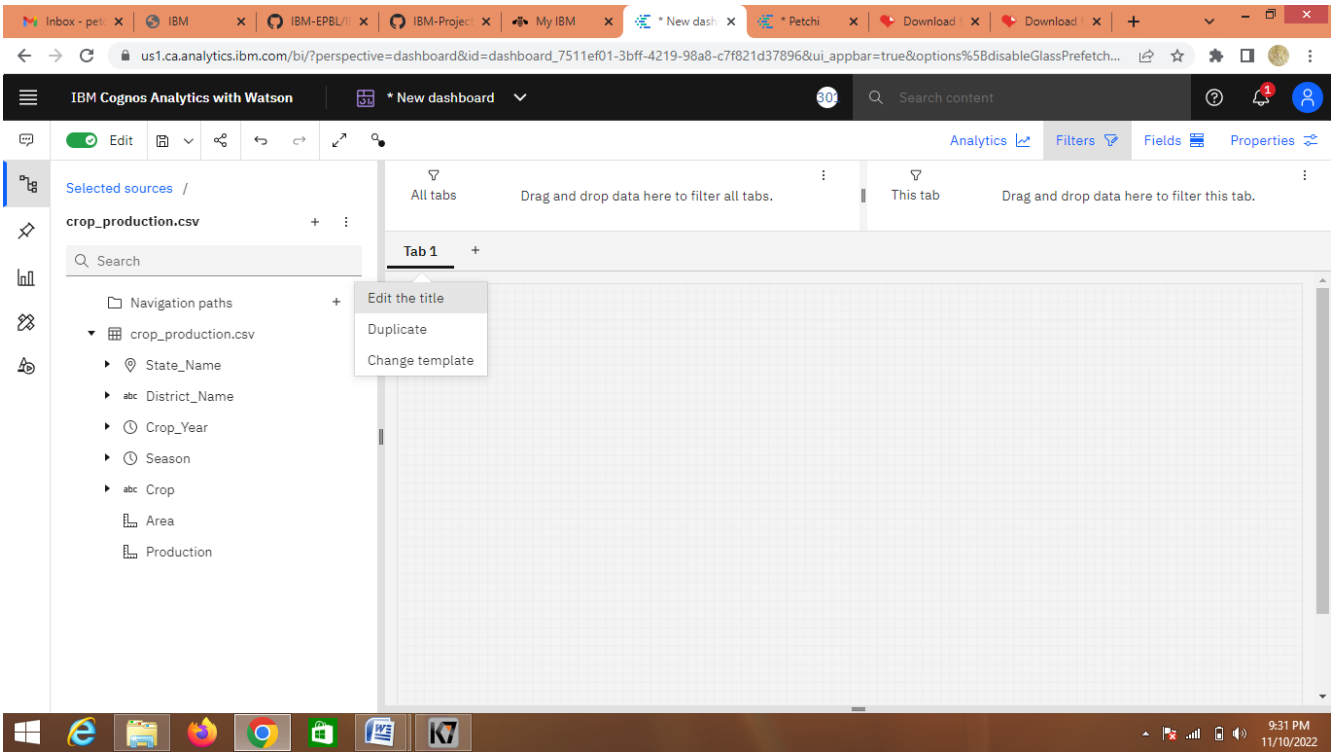

- Select a template for your dashboard and click create.



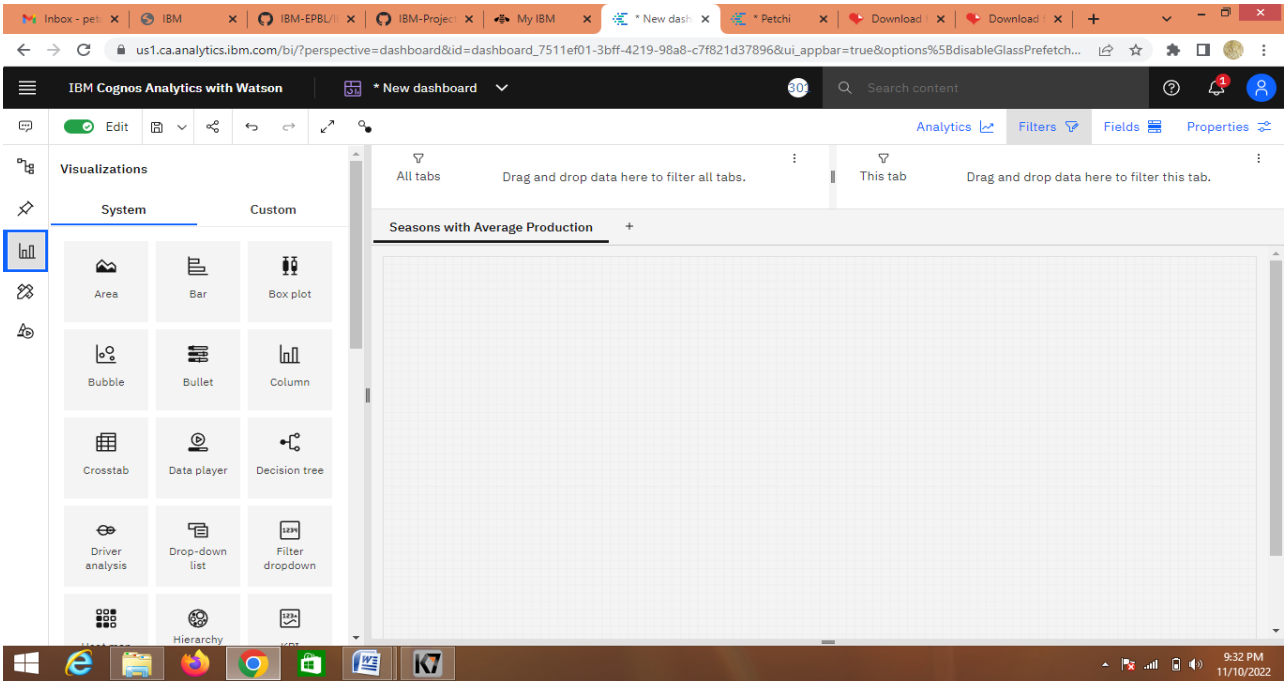
- Click the select a source then select the **crop_production.csv** dataset under **My content** tab and click **Add**




- Rename the tab title

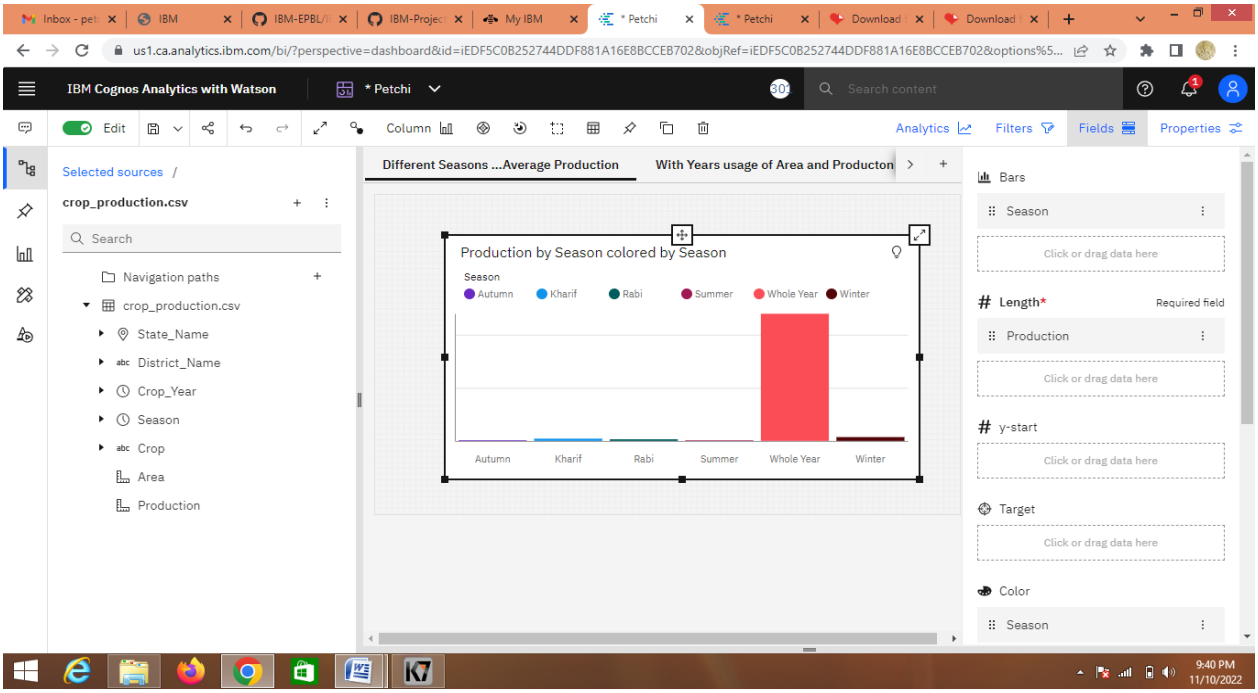


- Select the visualizations and select the system you want.



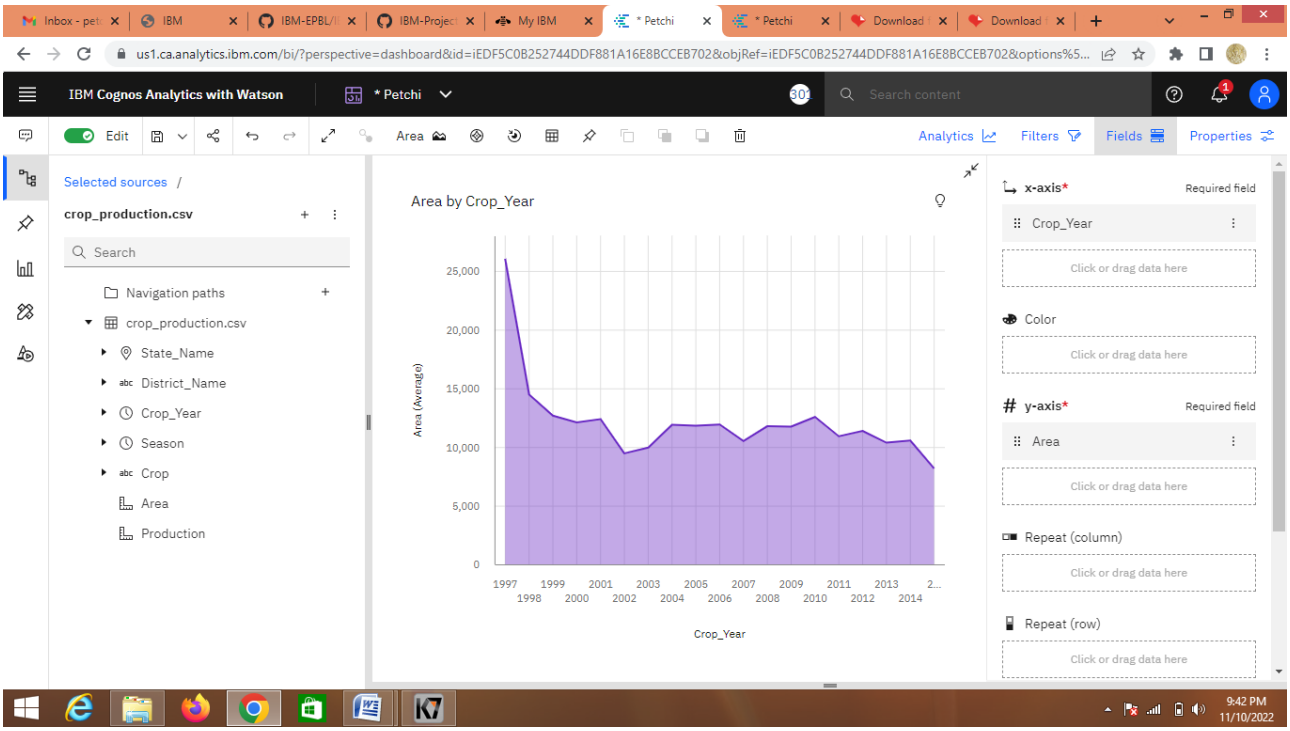

## 1. Seasons With Average Productions

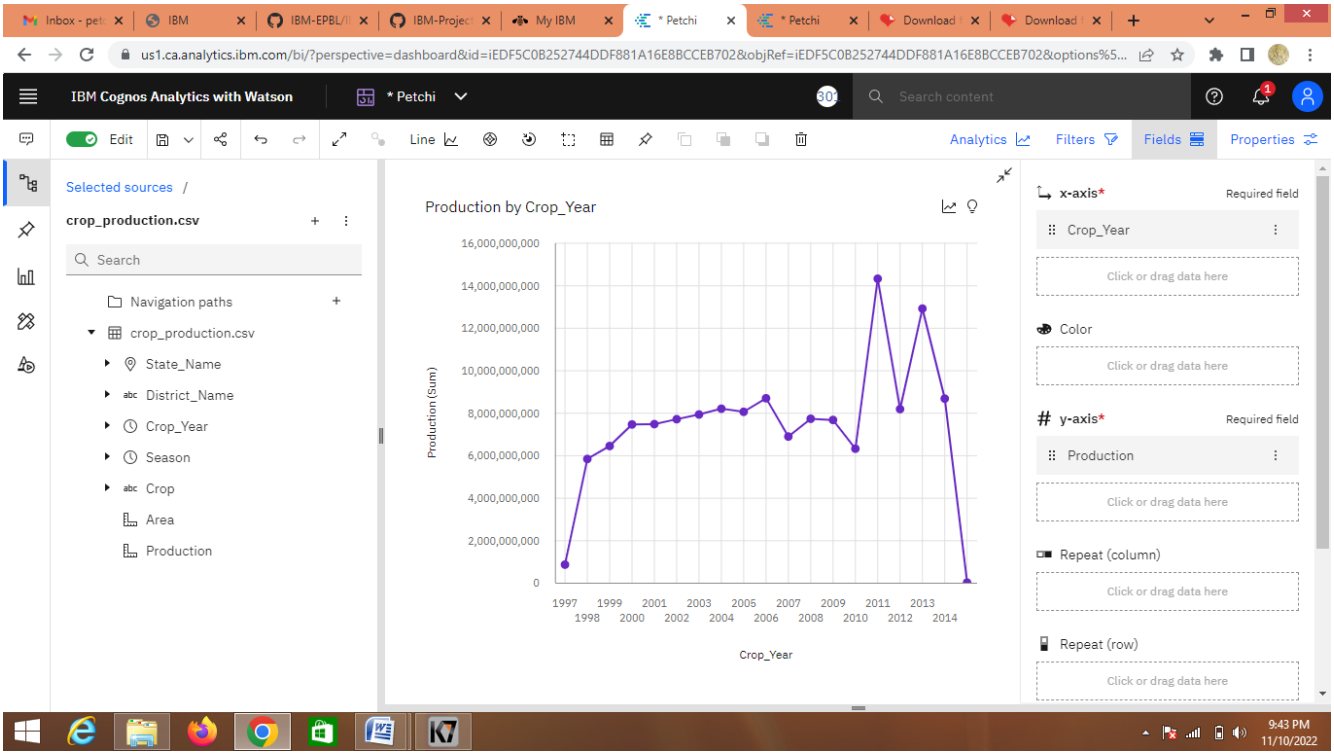
- Select the column in choose visualization and in fields select “Season” for Bars and “Production” for Length.



## 2. With Years Usage Of Area Production

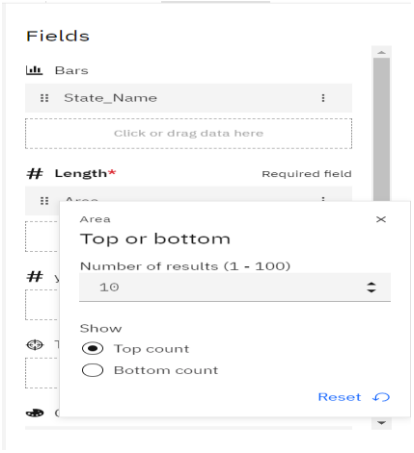
- Select the Area in choose visualization and in fields select "Crop_Year" for X-axisand "Area" for Y-axis.

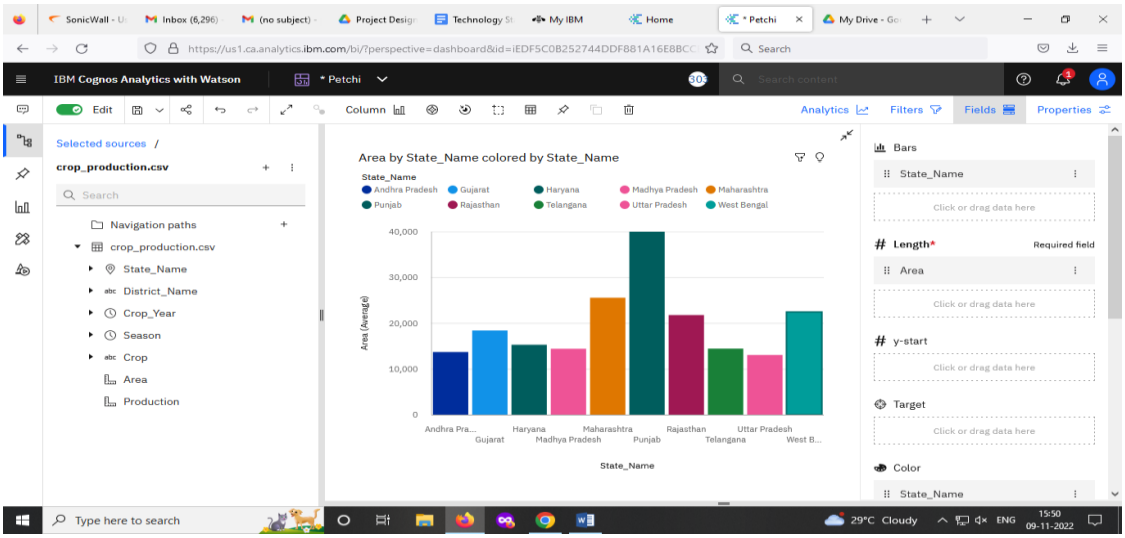


### 3. Top 10 States With Most Area

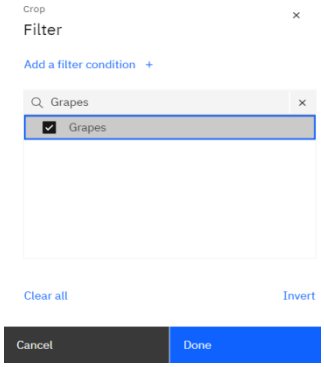
- Select the column in choose visualization and in fields select “State_Name” for Bars ,“Area” for Length “State_Name” for Color.
- Select three dots in Area -> Summarize -> Average.
- In Area click on the three dots then select Top or bottom
- In Number of Result Enter 10 and select the **Top count** .

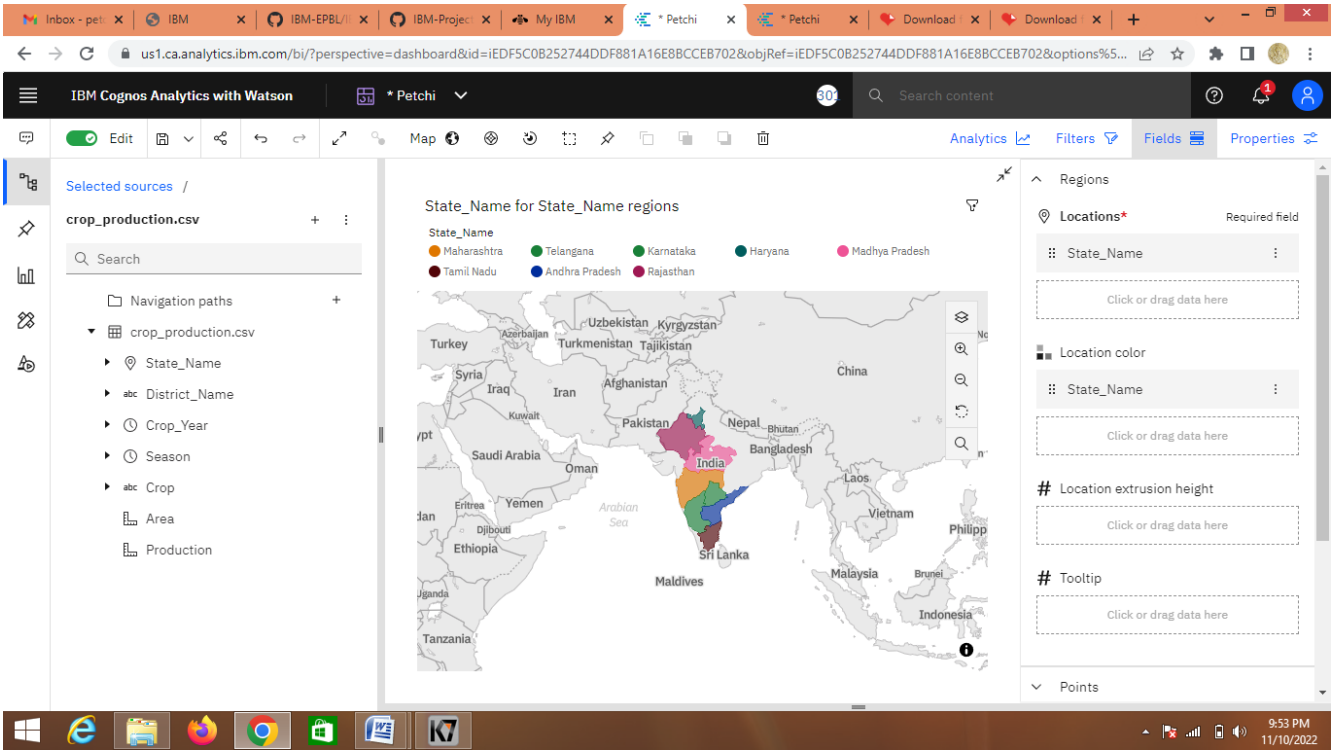


## 4. State With Crop Production

- Select the Map in choose visualization and in fields select “State_Name” for Locationand “State_Name and Crop” for Location Color.
- Click three dots in the Crop then select filter and choose particular crop that you wantthen click done.



## 5. State With The Crop Production Along With Season(Text Table)

- Select the table in choose visualization and in fields select “State_Name andCrop(sort : Grapes)” for Columns this is for Table 1
- Again Select the table in choose visualization and in fields select “Crop(sort : Grapes)and Season” for Columns this is for Table 2