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BIDD 330A

Module 02

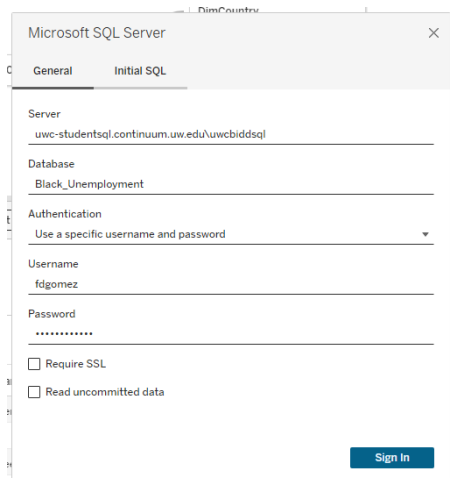
GitHub BIDD 330_Spring2024 Link: https://github.com/Phillips094/BIDD330_Spring2024

Tableau Application Development

Introduction:

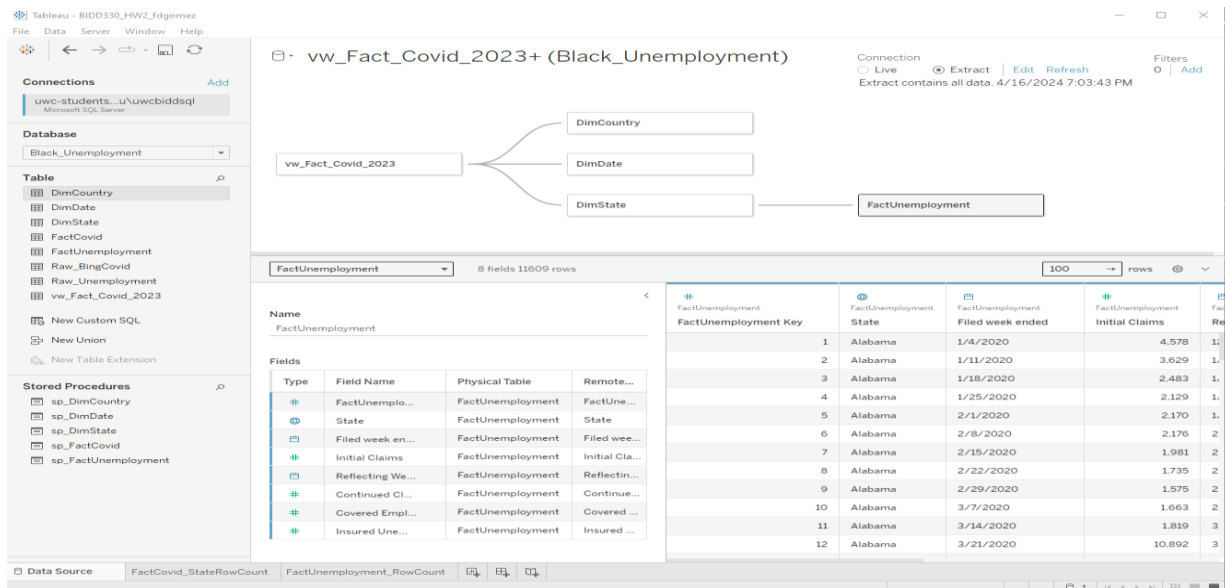
For module 02, we focus on developing a Tableau report using our Black_Unemployment database from our uwc-students server. In this assignment we construct a similar report as we did in Module 01 where we used Power BI. The structure is very similar to that of Power BI, where we can develop a data model using our dimension and fact tables from our data warehouse Black_Unemployment. After properly connecting our dimension and fact tables, we can then create our two reports required for Module 02, “FactCovid_StateRowCount” and “FactUnemployment_RowCount”.

We first begin connecting to our data source from Tableau. We must ensure that BIG-IP Edge Client is turned on and we have logged in using our credentials. Once this is turned on, we are then able to connect to our Black_Unemployment database in SQL Server. Below are our credentials for connecting to our Black_Unemployment database:

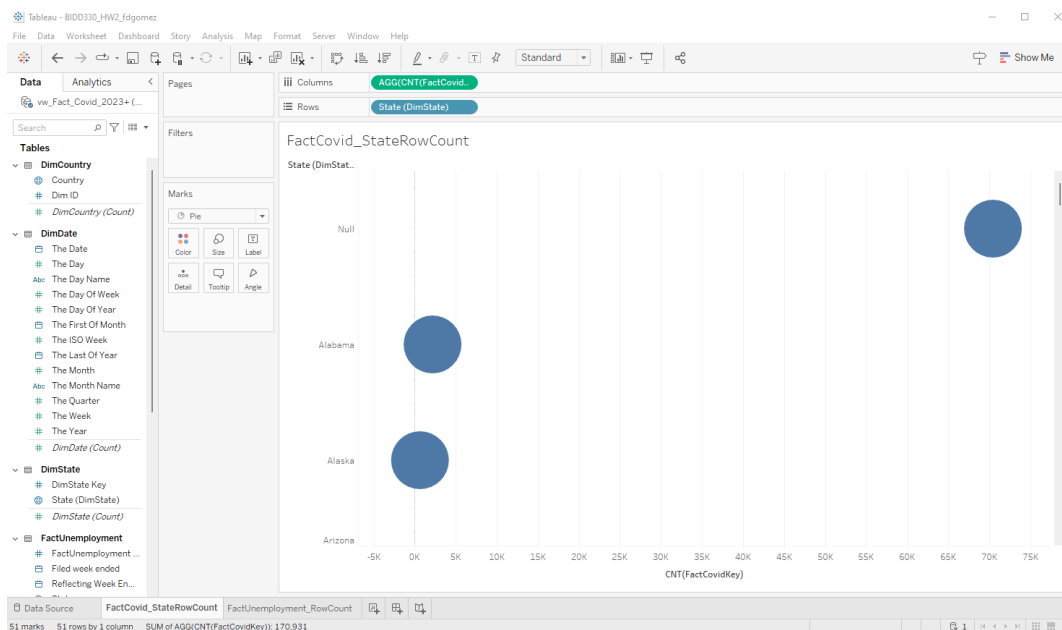


Now that this has been established, we can drag our necessary Dimension and Fact tables and drag them onto our Data Model. We create our connections between our Dimension and Fact tables so that we can begin creating measures and reports. After finalizing our Tableau data model, we have our vw_Fact_Covid_2023 Fact table connected by our 3 dimension tables (Dim Country, Dim Date and Dim State) and our Fact Unemployment connected to just Dim State.

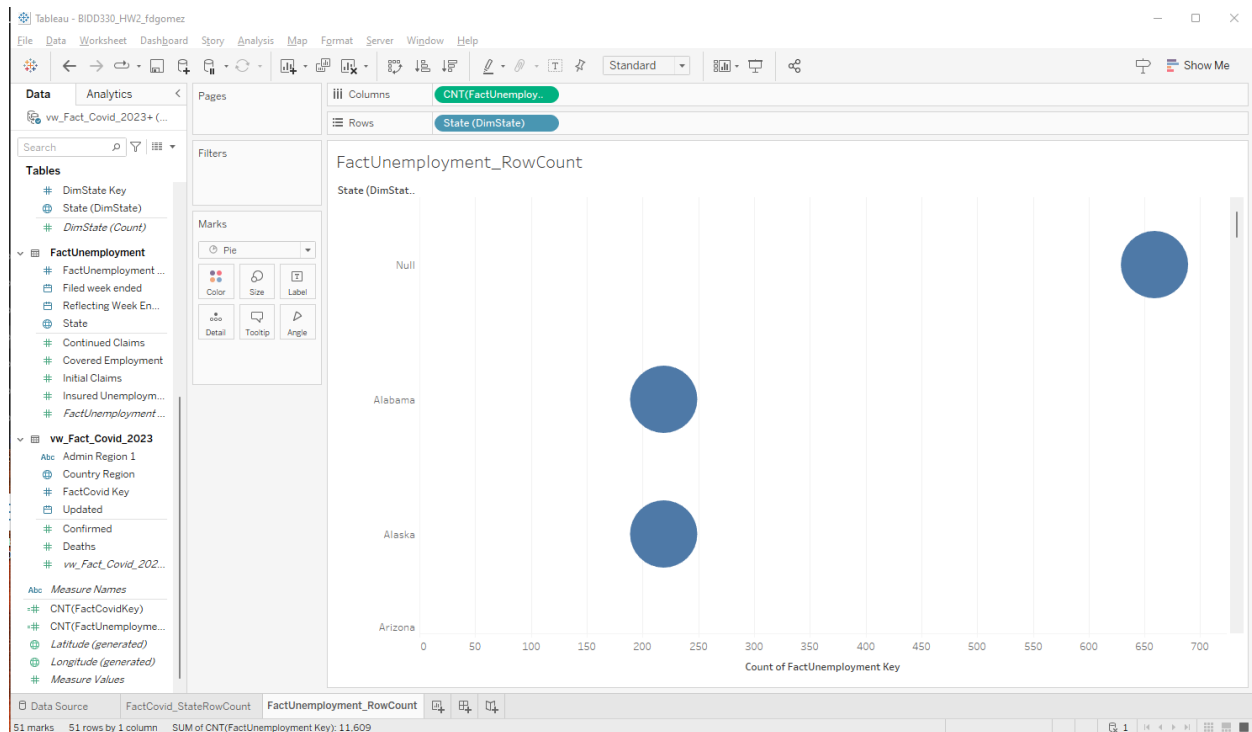
Our final data model is displayed below:



Now that we have our data model, we focus on our first report, “FactCovid_StateRowCount” where we show a count of our Fact Covid keys in our fact table and create a Pie chart where we compare the number of records for each state. As we see, we have over 70000 records that do not have a state assigned to them in the Fact Covid key. The count of records in our columns axis is a measure that we created in Tableau. The final visualization for this report page is shown below:



Similarly, we create a new report page named “FactUnemployment_RowCount” where we perform a similar count of records for each state but from our Fact Unemployment table. We also create a separate measure where we take the count of our Fact Unemployment key to count the number of records in this table. Here we find that there are 659 records that do not have a state assigned to them. Below is a screenshot of our final report visualization for “FactUnemployment_RowCount”.



Summary:

In summary, we have shown that we can create a simple Tableau report using a similar data model as we had done in Power BI. There are some slight differences when using Tableau that make it so the reports are different. It seems that Tableau does a good job in applying appealing visualizations, however I would have to say that Power BI does a better job in the data engineering and data modeling.