Eco 32500 Salman Haider & Md Taifur Rashid

John Droescher 5/12/23

**Report on Final project**

After looking into both topics for the final project we had decided as a group that we will choose and complete the Pizza Prompt. We started off by understanding the prompt that was given to us “I am looking to open a pizza restaurant, what suggestions do you have for success?”. The prompt led us to using the tables provided on the azure data studio server. We took that data, and we created a new query which included the tables through running a SQL code, and then we cleaned up the data as well. Next, we saved the tables filled with data on pizza as an excel.csv file on our computer. Next, we opened jupyterhub to type the python part of the project. On jupyter hub we first added the excel.csv file we had saved on our computer and then we brought the file onto the page with running code, and next we cleaned the data from the excel sheet. Next, we ran a code to get a graph of sales through 5 different boroughs. Taking in the fact we live in NYC we were proposing the idea that we are going to open pizzeria in one of the five boroughs in NYC, further studies showed that Manhattan had the highest margin of sales. leading to our decision to choose a location in Manhattan to open our pizzeria. The next code we used was as we came to the decision of opening a pizzeria in Manhattan, we looked more into which zip codes in Manhattan have the most sales to narrow down our decision on an exact location. The highest number in sales margin came in the 10001-zip code, so we decided we would like to open our pizzeria there. Following further research, the next python code next, we used to be on the preference of pizza type in that zip code, and as you can see, we had set a score for the highest preference, which was pepperoni, this narrows down our decision on presenting our store promotion and what type of pizzas we will include. also helps us take into mind how much stock we need for certain items depending on sales. The next two codes we used were for determining the types of ingredients and types of toppings people preferred for their pizzas. The code ran gave us a graph of which ingredients and toppings were highly preferred in the area we plan to open our pizzeria. In a pizzeria, if you gain popularity a lot of people would want your food, but some cannot come to your pizzeria’s locations, and as a little research showed on the graph given by the code written deliveries made more sales and profit for the pizzeria. Critical thinking next led to the decision of which sides profit from the pizzeria more and which sides are preferred more in our location. Doing some research led us to this graph, which shows us the profit per day based on sales for each side.