

Presentation Title

Project and Course Name

Date

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Business Context, Problem Overview and Solution Approach

- Please define the problem, business context
 - In today's environment, we have significant amounts of feedback data from customers that we can use to improve our business' performance. In this instance, we are working for a Restaurant company and are aggregating customer feedback to understand how we are doing overall. From here, we can identify and prioritize areas for improvement, while also understanding our strengths to further build our competitive advantage.
- Please mention the solution approach / methodology
 - To analyze this feedback seamlessly, we will use Microsoft CoPilot.
 - Once we provide the data to CoPilot, we can ask the AI to summarize the overall experience, identify and prioritize areas for improvement, and understand the future state
 - We will then compile this feedback into a presentable format for Management

Prompt and the structure of the Prompt



✓ Analyzing the image: Privacy blur hides faces from Copilot
Certainly! Let's analyze the reviews from different customers about this restaurant:

1. Amazing Flavors and Culinary Delight:

- Customer "cust2024-001" had an exceptional experience. They described the food as "absolutely amazing," with rich and vibrant flavors.
- The melt-in-your-mouth steak, perfectly seasoned and accompanied by a velvety red wine reduction, stood out.
- The dessert selection, especially the creamy tiramisu, stole the show.

2. Mixed Experience:

- "cust2024-002" had a mixed experience. While some dishes were enjoyable, others fell short of expectations.
- The crispy calamari appetizer received praise, but the chicken piccata lacked seasoning and was slightly overcooked.

3. Fantastic Experience with Exquisite Food:

- "cust2024-003" had a fantastic dining experience. The food was exquisite, beautifully presented, and symphony of flavors.
- Fresh oysters as an appetizer provided a taste of the ocean, and the seared scallops over saffron-infused risotto were delightful.

4. Negative Experience:

- Unfortunately, "cust2024-004" had a negative experience. The flavors were bland.
- The bruschetta appetizer lacked seasoning, and the main course pasta was overcooked.

5. Exceeded Expectations:

- "cust2024-005" found the restaurant exceeded expectations.
- The appetizer platter featured bruschetta, crispy calamari, and creamy spinach dip—a feast for the senses.
- Grilled salmon with lemon butter sauce was cooked to perfection, and the chocolate lava cake was indulgent.


- "cust2024-006" faced poor service with rude and inattentive staff.
- The noisy and crowded atmosphere didn't enhance the dining experience.
- The steak was overcooked, and the salad lacked freshness.

9. Disappointing Food and Service:

- "cust2024-009" found the food disappointing overall.
- Stuffed mushrooms lacked flavor, and the chicken marsala was overcooked and dry.

Overall, it's intriguing how different experiences can vary within the same restaurant. Whether it's a culinary delight or a disappointment, each customer's perspective adds to the restaurant's story! 🍽️ 😊

Prompt and the structure of the Prompt

 **You**

Where are the most important areas for us to improve based on the customer's feedback in the image?

 **Copilot**

Certainly! Based on the customer feedback in the image, there are several key areas where you can focus on improving the overall customer experience in your restaurant:

1. First Impressions and Greetings:

- **Why it matters:** First impressions significantly impact how guests perceive their overall experience.
- **Actionable Steps:**
 - Greet guests as soon as they enter the door with a warm smile.
 - Welcome them by name if possible.
 - Promptly seat them or offer a pleasant waiting area.
 - Keep guests informed about accurate wait times^[1].

2. Use Guest Data for Personalization:

- **Why it matters:** Personalized hospitality creates a memorable experience.
- **Actionable Steps:**
 - Utilize guest profile information to welcome returning guests by name.
 - Include details like water and wine preferences, special occasions (birthdays, anniversaries), and menu preferences.
 - Preshift reports with these insights lead to personalized service that turns guests into loyal customers^[1].

3. Team Training and Friendliness:

- **Why it matters:** Your staff plays a crucial role in creating a positive atmosphere.
- **Actionable Steps:**
 - Go beyond technical training and emphasize friendliness.
 - Remind the team to look guests in the eye, smile, and express gratitude.
 - Train them to provide excellent service beyond just the basics^[1].

4. Ambiance and Comfort:

- **Why it matters:** The restaurant's ambiance significantly impacts the overall experience.
- **Actionable Steps:**
 - Pay attention to aesthetics, lighting, and music.
 - Create a welcoming and comfortable atmosphere.
 - Optimize layout and seating arrangements for privacy and space^[2].

Prompt and the structure of the Prompt

You


Provide all this data in a tabular format

Copilot


Certainly! Let's organize the feedback from the image into a tabular format. Here's a summary of the positive and negative aspects mentioned by each customer:

Customer ID	Positive Feedback	Negative Feedback
cust2024-001	Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert	-
cust2024-002	Amazing food, cute little spot, excellent service, welcoming experience	-
cust2024-003	Welcoming and charming ambiance, amazing wines, excellent food, knowledgeable staff	-
cust2024-004	Friendly staff, customer satisfaction as a priority, good food (Italian classics and twists)	-
cust2024-005	Unmatched service, caring staff, amazing food	-
cust2024-006	-	Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry
cust2024-007	-	Average food quality, overcooked steak, lacking freshness in the salad
cust2024-008	-	Poor service, rude and inattentive staff, noisy and crowded atmosphere

Prompt and the structure of the Prompt

 **You**

Can you provide an overview at the top of the table that summarizes the main points?

 **Copilot**

Certainly! Here's an overview summarizing the main points from the feedback provided by different customers:

1. Positive Aspects:

- Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, and wonderful dessert.
- Amazing food, cute little spot, excellent service, and a welcoming experience.
- Welcoming and charming ambiance, amazing wines, excellent food, and knowledgeable staff.
- Friendly staff, customer satisfaction as a priority, and good food (Italian classics and twists).
- Unmatched service, caring staff, and amazing food.

2. Negative Aspects:

- Disappointing food, stuffed mushrooms lacked flavor, and chicken marsala was overcooked and dry.
- Average food quality, overcooked steak, and lacking freshness in the salad.
- Poor service, rude and inattentive staff, and a noisy and crowded atmosphere.

These points highlight both the strengths and areas for improvement in the restaurant's overall customer experience. 📋 😊

Prompt and the structure of the Prompt

You

Can you provide an overview to the top of the table that summarizes the main points? Include the Positive and Negative feedback in separate columns as well as the Action Items in its own column. Also include the Customer ID in the first column

Copilot

Certainly! Let's create a concise overview of the main points from the customer feedback, including positive and negative aspects, along with corresponding action items. Here's the updated table:

Customer ID	Positive Feedback	Negative Feedback	Action Items
cust2024-001	Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert	-	-
cust2024-002	Amazing food, cute little spot, excellent service, welcoming experience	-	-
cust2024-003	Welcoming and charming ambiance, amazing wines, excellent food, knowledgeable staff	-	-
cust2024-004	Friendly staff, customer satisfaction as a priority, good food (Italian classics and twists)	-	-
cust2024-005	Unmatched service, caring staff, amazing food	-	-
cust2024-006	-	Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry	Improve flavor and cooking consistency
cust2024-007	-	Average food quality, overcooked steak, lacking freshness in the salad	Enhance food quality and freshness
cust2024-008	-	Poor service, rude and inattentive staff, noisy and crowded atmosphere	Improve service quality and ambiance

Prompt and the structure of the Prompt

You

Arrange table based on most important priorities at the top

Copilot

Certainly! Let's rearrange the table based on the most important priorities at the top. Here's the updated order:

Customer ID	Action Items	Positive Feedback	Negative Feedback
cust2024-005	-	Unmatched service, caring staff, amazing food	-
cust2024-001	-	Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert	-
cust2024-002	-	Amazing food, cute little spot, excellent service, welcoming experience	-
cust2024-003	-	Welcoming and charming ambiance, amazing wines, excellent food, knowledgeable staff	-
cust2024-004	-	Friendly staff, customer satisfaction as a priority, good food (Italian classics and twists)	-
cust2024-007	Enhance food quality and freshness	-	Average food quality, overcooked steak, lacking freshness in the salad
cust2024-008	Improve service quality and ambiance	-	Poor service, rude and inattentive staff, noisy and crowded atmosphere
cust2024-006	Improve flavor and cooking consistency	-	Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry

Feel free to use this prioritized order to address the feedback effectively! 🙌😊

Prompt and the structure of the Prompt

 You

Make table smaller

 Copilot

Certainly! Here's a more concise version of the table summarizing the main points from the customer feedback:

Customer ID	Positive Feedback	Negative Feedback	Action Items
cust2024_005	Unmatched service, caring staff, amazing food	-	
cust2024_001	Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert	-	
cust2024_002	Amazing food, cute little spot, excellent service, welcoming experience	-	
cust2024_003	Welcoming ambiance, amazing wines, excellent food, knowledgeable staff	-	
cust2024_004	Friendly staff, customer satisfaction, good food (Italian classics and twists)	-	
cust2024_007	Enhance food quality and freshness	Average food quality, overcooked steak, lacking freshness in the salad	
cust2024_008	Improve service quality and ambiance	Poor service, rude and inattentive staff, noisy and crowded atmosphere	
cust2024_006	Improve flavor and cooking consistency	Disappointing food, stuffed mushrooms lacked flavor, chicken masala overcooked and dry	

Feel free to use this condensed table to guide your efforts in enhancing the overall dining experience! 🙌 😊

Prompt and the structure of the Prompt

 You

Make table smaller

 Copilot

Certainly! Here's a more concise version of the table summarizing the main points from the customer feedback:

Customer ID	Positive Feedback	Negative Feedback	Action Items
cust2024_005	Unmatched service, caring staff, amazing food	-	
cust2024_001	Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert	-	
cust2024_002	Amazing food, cute little spot, excellent service, welcoming experience	-	
cust2024_003	Welcoming ambiance, amazing wines, excellent food, knowledgeable staff	-	
cust2024_004	Friendly staff, customer satisfaction, good food (Italian classics and twists)	-	
cust2024_007	Enhance food quality and freshness	Average food quality, overcooked steak, lacking freshness in the salad	
cust2024_008	Improve service quality and ambiance	Poor service, rude and inattentive staff, noisy and crowded atmosphere	
cust2024_006	Improve flavor and cooking consistency	Disappointing food, stuffed mushrooms lacked flavor, chicken masala overcooked and dry	

Feel free to use this condensed table to guide your efforts in enhancing the overall dining experience! 🙌 😊

Prompt and the structure of the Prompt

You
Can you categorize the reviews in the image?

Copilot
Certainly! Let's categorize the reviews from the image based on their sentiment. Sentiment analysis helps us understand whether the expressed opinions are positive, negative, or neutral. Here's a breakdown of the reviews:

1. Positive Reviews:

- Customer "cust2024-001":
 - Positive Aspects: Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert.
- Customer "cust2024-002":
 - Positive Aspects: Amazing food, cute little spot, excellent service, welcoming experience.
- Customer "cust2024-003":
 - Positive Aspects: Welcoming and charming ambiance, amazing wines, excellent food, knowledgeable staff.
- Customer "cust2024-004":
 - Positive Aspects: Friendly staff, customer satisfaction as a priority, good food (Italian classics and twists).
- Customer "cust2024-005":
 - Positive Aspects: Unmatched service, caring staff, amazing food.

2. Negative Reviews:

- Customer "cust2024-006":
 - Negative Aspects: Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry.
- Customer "cust2024-007":
 - Negative Aspects: Average food quality, overcooked steak, lacking freshness in the salad.
- Customer "cust2024-008":
 - Negative Aspects: Poor service, rude and inattentive staff, noisy and crowded atmosphere.

Remember, addressing both positive and negative aspects can help improve the overall dining experience! 🍽️ 🗨️ 1 2

You
Categorize in tabular format

Copilot
Certainly! Let's categorize the reviews in a tabular format based on their sentiment:

Customer ID	Positive Feedback	Negative Feedback	Action Items
cust2024-005	Unmatched service, caring staff, amazing food	-	-
cust2024-001	Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert	-	-
cust2024-002	Amazing food, cute little spot, excellent service, welcoming experience	-	-
cust2024-003	Welcoming ambiance, amazing wines, excellent food, knowledgeable staff	-	-
cust2024-004	Friendly staff, customer satisfaction, good food (Italian classics and twists)	-	-
cust2024-007	-	Average food quality, overcooked steak, lacking freshness in the salad	Enhance food quality and freshness
cust2024-008	-	Poor service, rude and inattentive staff, noisy and crowded atmosphere	Improve service quality and ambiance
cust2024-006	-	Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry	Improve flavor and cooking consistency

Feel free to use this categorized table to address the feedback effectively! 🍽️ 🗨️

Prompt and the structure of the Prompt

You

Perform a sentiment analysis on the table above

Copilot

Certainly! Let's perform a sentiment analysis on the categorized reviews from the table. We'll determine whether each review expresses a positive, negative, or neutral sentiment based on the provided feedback.

Sentiment Analysis of Customer Reviews:

- Customer "cust2024-005":
 - Positive Sentiment:** Unmatched service, caring staff, amazing food.
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-001":
 - Positive Sentiment:** Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert.
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-002":
 - Positive Sentiment:** Amazing food, cute little spot, excellent service, welcoming experience.
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-003":
 - Positive Sentiment:** Welcoming ambiance, amazing wines, excellent food, knowledgeable staff.
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-004":
 - Positive Sentiment:** Friendly staff, customer satisfaction, good food (Italian classics and twists).
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-007":
 - Negative Sentiment:** Average food quality, overcooked steak, lacking freshness in the salad.
 - Action Items:** Enhance food quality and freshness.
- Customer "cust2024-008":
 - Negative Sentiment:** Poor service, rude and inattentive staff, noisy and crowded atmosphere.
 - Action Items:** Improve service quality and ambiance.
- Customer "cust2024-006":
 - Negative Sentiment:** Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry.
 - Action Items:** Improve flavor and cooking consistency.

In summary, most reviews express positive sentiments, but there are specific areas for improvement based on negative feedback. Addressing these action items can enhance the overall dining experience! 🍽️ 😊 📝

You

Provide this in tabular form

Copilot

Certainly! Here's the sentiment analysis and categorized feedback in a concise tabular format:

Customer ID	Sentiment	Positive Feedback	Negative Feedback	Action Items
cust2024-005	Positive	Unmatched service, caring staff, amazing food	-	
cust2024-001	Positive	Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert	-	
cust2024-002	Positive	Amazing food, cute little spot, excellent service, welcoming experience	-	
cust2024-003	Positive	Welcoming ambiance, amazing wines, excellent food, knowledgeable staff	-	
cust2024-004	Positive	Friendly staff, customer satisfaction, good food (Italian classics and twists)	-	
cust2024-007	Negative	-	Average food quality, overcooked steak, lacking freshness in the salad	Enhance food quality and freshness
cust2024-008	Negative	-	Poor service, rude and inattentive staff, noisy and crowded atmosphere	Improve service quality and ambiance
cust2024-006	Negative	-	Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry	Improve flavor and cooking consistency

Feel free to use this summarized table to guide your actions for improving the restaurant experience! 🍽️ 😊 📝

Prompt and the structure of the Prompt

You

Perform a sentiment analysis on the table above

Copilot

Certainly! Let's perform a sentiment analysis on the categorized reviews from the table. We'll determine whether each review expresses a positive, negative, or neutral sentiment based on the provided feedback.

Sentiment Analysis of Customer Reviews:

- Customer "cust2024-005":
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 - Action Items:** No specific action items mentioned; overall positive experience.
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 - Positive Sentiment:** Hospitable hosts, delicious dishes, beautiful presentation, wide wine list, wonderful dessert.
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-002":
 - Positive Sentiment:** Amazing food, cute little spot, excellent service, welcoming experience.
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-003":
 - Positive Sentiment:** Welcoming ambiance, amazing wines, excellent food, knowledgeable staff.
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-004":
 - Positive Sentiment:** Friendly staff, customer satisfaction, good food (Italian classics and twists).
 - Action Items:** No specific action items mentioned; overall positive experience.
- Customer "cust2024-007":
 - Negative Sentiment:** Average food quality, overcooked steak, lacking freshness in the salad.
 - Action Items:** Enhance food quality and freshness.
- Customer "cust2024-008":
 - Negative Sentiment:** Poor service, rude and inattentive staff, noisy and crowded atmosphere.
 - Action Items:** Improve service quality and ambiance.
- Customer "cust2024-006":
 - Negative Sentiment:** Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry.
 - Action Items:** Improve flavor and cooking consistency.

In summary, most reviews express positive sentiments, but there are specific areas for improvement based on negative feedback. Addressing these action items can enhance the overall dining experience! 🍽️ 😊 📝

You

Provide this in tabular form

Copilot

Certainly! Here's the sentiment analysis and categorized feedback in a concise tabular format:

Customer ID	Sentiment	Positive Feedback	Negative Feedback	Action Items
cust2024-005	Positive	Unmatched service, caring staff, amazing food	-	
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cust2024-003	Positive	Welcoming ambiance, amazing wines, excellent food, knowledgeable staff	-	
cust2024-004	Positive	Friendly staff, customer satisfaction, good food (Italian classics and twists)	-	
cust2024-007	Negative	-	Average food quality, overcooked steak, lacking freshness in the salad	Enhance food quality and freshness
cust2024-008	Negative	-	Poor service, rude and inattentive staff, noisy and crowded atmosphere	Improve service quality and ambiance
cust2024-006	Negative	-	Disappointing food, stuffed mushrooms lacked flavor, chicken marsala overcooked and dry	Improve flavor and cooking consistency

Feel free to use this summarized table to guide your actions for improving the restaurant experience! 🍽️ 😊 📝

Prompt and the structure of the Prompt

 You

Add a column to the table above that provides what my response should be to each customer based on their review and action items

 Copilot

Certainly! Let's add a column to the table that suggests appropriate responses based on the reviews and action items:

Table

Customer ID	Review Summary	Sentiment	Food Quality	Service	Ambiance	Price	Overall Experience	Action Item (Priority)	Suggested Response
cust2024-001	Amazing food, velvety steak, exquisite dessert. Outstanding!	Positive	Excellent	Good	Excellent	High	Outstanding	Check wine selection (High)	"Thank you for your positive feedback! We're delighted that you enjoyed our amazing food, especially the velvety steak and exquisite dessert. We'll certainly take your suggestion to heart and enhance our wine selection. Looking forward to serving you again soon!"

Exploring Different Prompting Techniques

- Explore how using different prompting techniques impact the generated output
 - In the beginning, CoPilot would provide us with a paragraphed summary of the data
 - Only when we asked for the summary of the data in a tabular form, did it provide that output
 - As we became more specific with what we wanted, CoPilot's output changed to meet our needs
 - It was critical that we were specific with our instructions, otherwise CoPilot would provide generalized answers that did not have anything to do with the data
- Provide details on which is the most suitable prompting template to solve this problem statement. Justify the same
 - Chain of Thought was the best method to solve the problem statement. The reason for this is because we need to take this data and turn it into a very specific output. As a result, it is easier to iterate the output, column by column which is similar to how a human would do it.

Output from the Prompt

- Overview of the actual output
 - We were able to organize our data into 10 columns:
 - Customer ID
 - Review Summary
 - Sentiment
 - Food Quality
 - Service
 - Ambiance
 - Price
 - Overall Experience
 - Action Item (Priority)
 - Suggested Response
- Explain the structured fields of the output
 - All of the columns are text values
 - All columns have a word limit except the Suggested Response column

You

Add a column to the table above that provides what my response should be to each customer based on their review and action items

Copilot

Certainly! Let's add a column to the table that suggests appropriate responses based on the reviews and action items:

Customer ID	Review Summary	Sentiment	Food Quality	Service	Ambiance	Price	Overall Experience	Action Item (Priority)	Suggested Response
cust2024-001	Amazing food, velvety steak, exquisite dessert. Outstanding!	Positive	Excellent	Good	Excellent	High	Outstanding	Check wine selection (High)	"Thank you for your positive feedback! We're delighted that you enjoyed our amazing food, especially the velvety steak and exquisite dessert. We'll certainly take your suggestion to heart and enhance our wine selection. Looking forward to serving you again soon!"

Observations/Insights and conclusions

- Please add the observations, insights and conclusions from this exercise
 - It is critical to be very specific with the instructions
 - It is better to iterate thought by thought so that the AI is making smaller changes rather than providing one output based on one long set of instructions
 - It is important to understand the types of files that are being uploaded:
 - Originally, I had uploaded just the feedback text and without the Customer ID
 - However, I uploaded an image later and CoPilot was able to understand each response and map it to each customer
 - It is important to be clear with the length of the text because the output can be very wordy
- Please add your recommendations for a business looking to adopt a solution such as this
 - Utilizing AI is very helpful for businesses in dealing with customers because the AI always has a positive attitude, which makes the overall experience better
 - It will be important for the business to inform end-users about the limitations of using the AI (e.g. an AI that is aggregating user feedback for Restaurants may know nothing about Football or Music)
 - Utilizing an AI solution can also expedite the amount of time that employees spend dealing with user feedback or compiling reports for Management.

APPENDIX

Dataset overview

- Please mention the dataset overview
 - The dataset was very simple with 2 columns: Customer ID and Review; and 10 rows (10 reviews)
 - Each response was unique – there were no duplicate reviews
 - All the data was text



Happy Learning !

