Sip and Savor

A Journey Through Austin's Best Bars

Mallika Singh, Sam Song, Ashley Soto, Jaime Wang, Austin Yeh, Haoyi Zhou
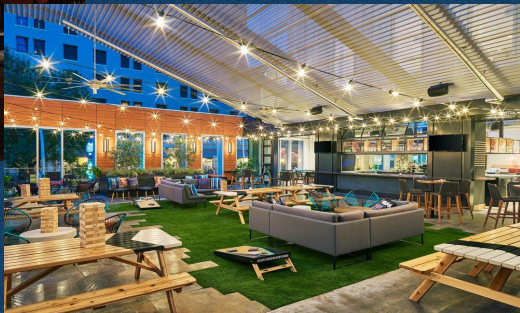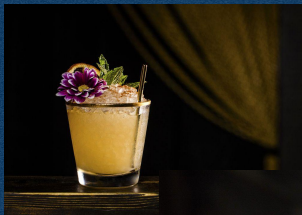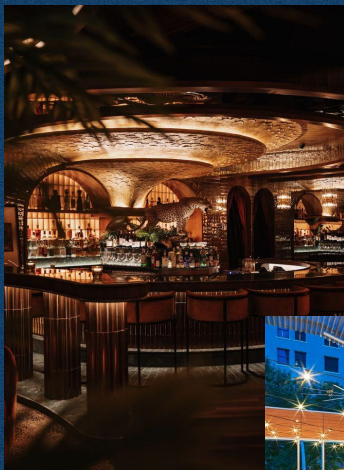
Table of Contents

01

Introduction

Problem & Importance

- Identify the key attributes that customers value most in the Domain vs. Downtown Austin

- Bars in the Domain and Downtown can market effectively by leveraging key audience insights
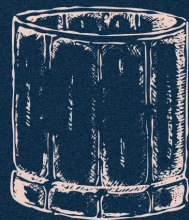
Dataset - yelp

- 45 bars from downtown
- 20 bars from domain
- 11708 reviews

02

Topic
Modeling

Topics from LDA

Atmosphere:
Bar
Place
Music
Great
Good
Like
One
Austin
Night
Drinks

Cocktails:
Drinks
Bar
Place
Great
Cocktails
Drink
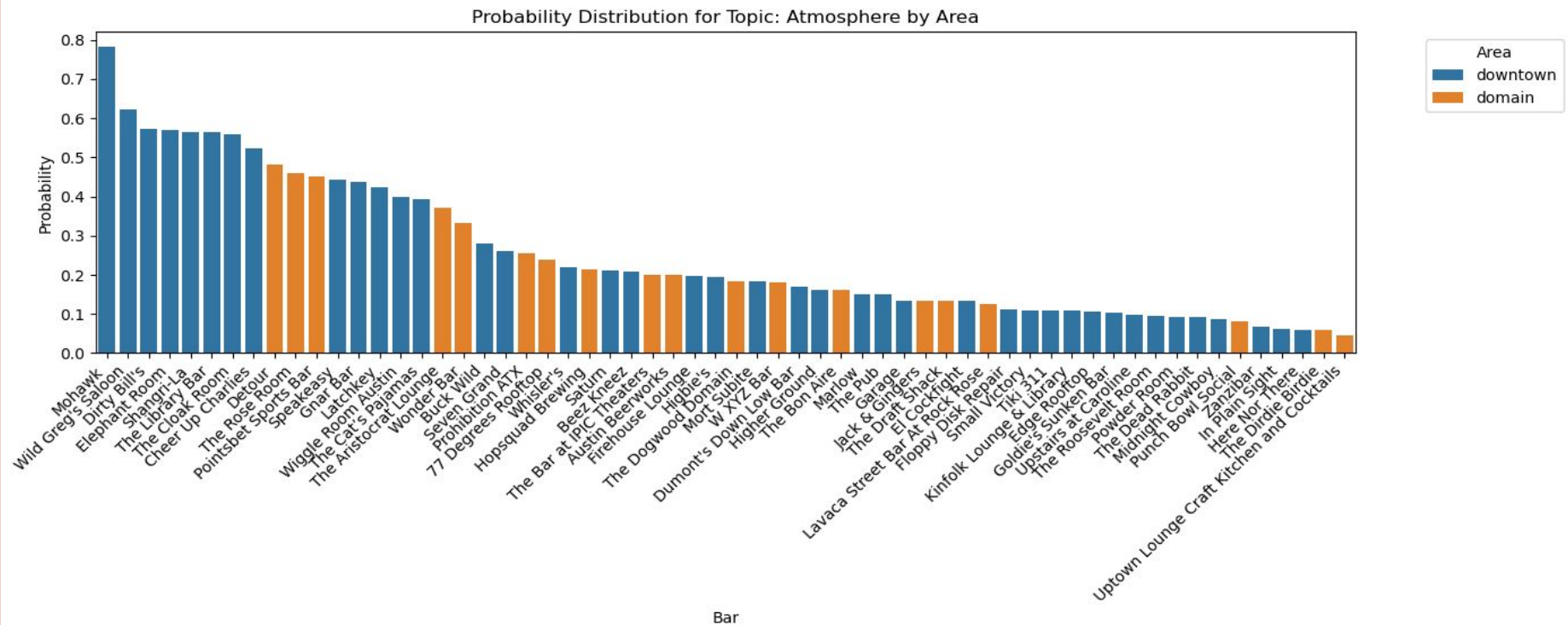Austin
Cocktail
Menu
Cook

Dining:
Great
Food
Good
Place
Drinks
Service
Beer
Time
Back
Really

Service:
Us
Bar
Get
One
Place
Time
Bartender
Would
Drink
Service

Topic 1: Atmosphere

Probability Distribution for Topic: Atmosphere by Area
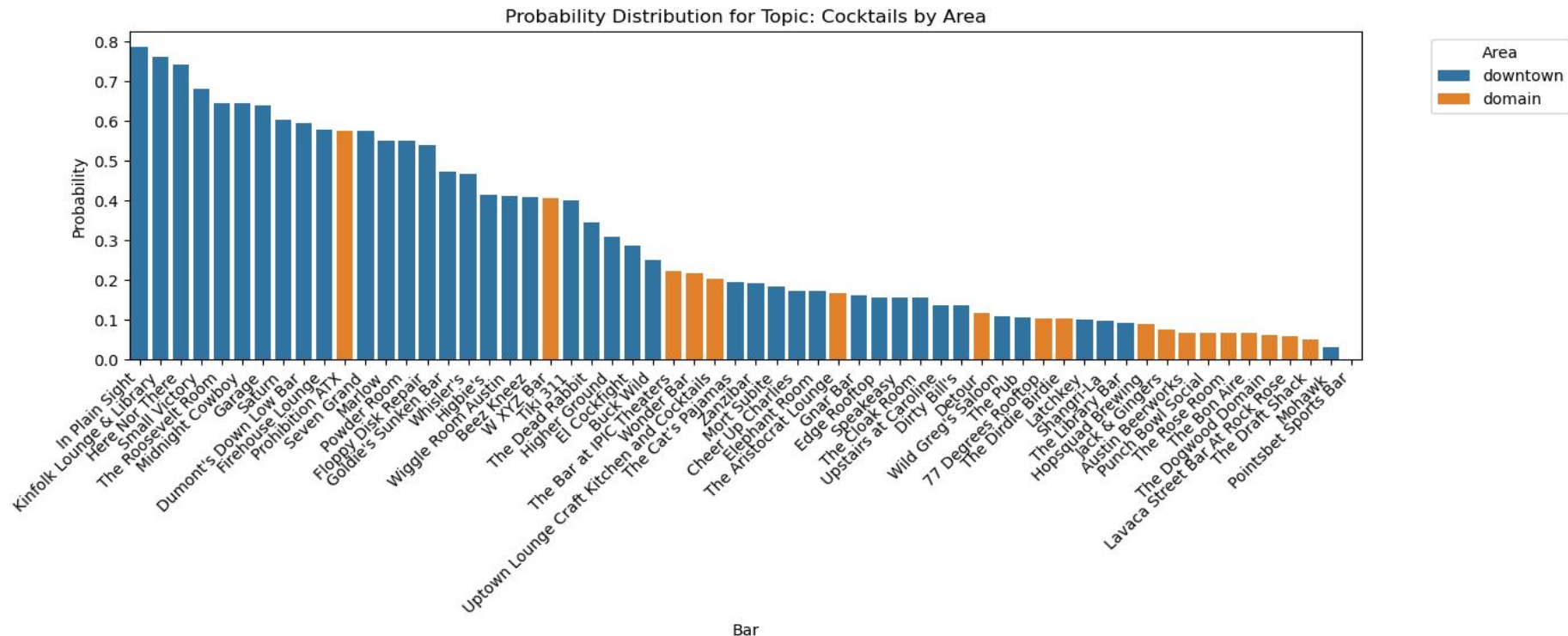
Topic 2: Cocktails

Probability Distribution for Topic: Cocktails by Area

Topic 3: Dining

Probability Distribution for Topic: Dining by Area

Topic 4: Service

Probability Distribution for Topic: Service by Area

Topics from BERT

Topic distribution for top 20 topics
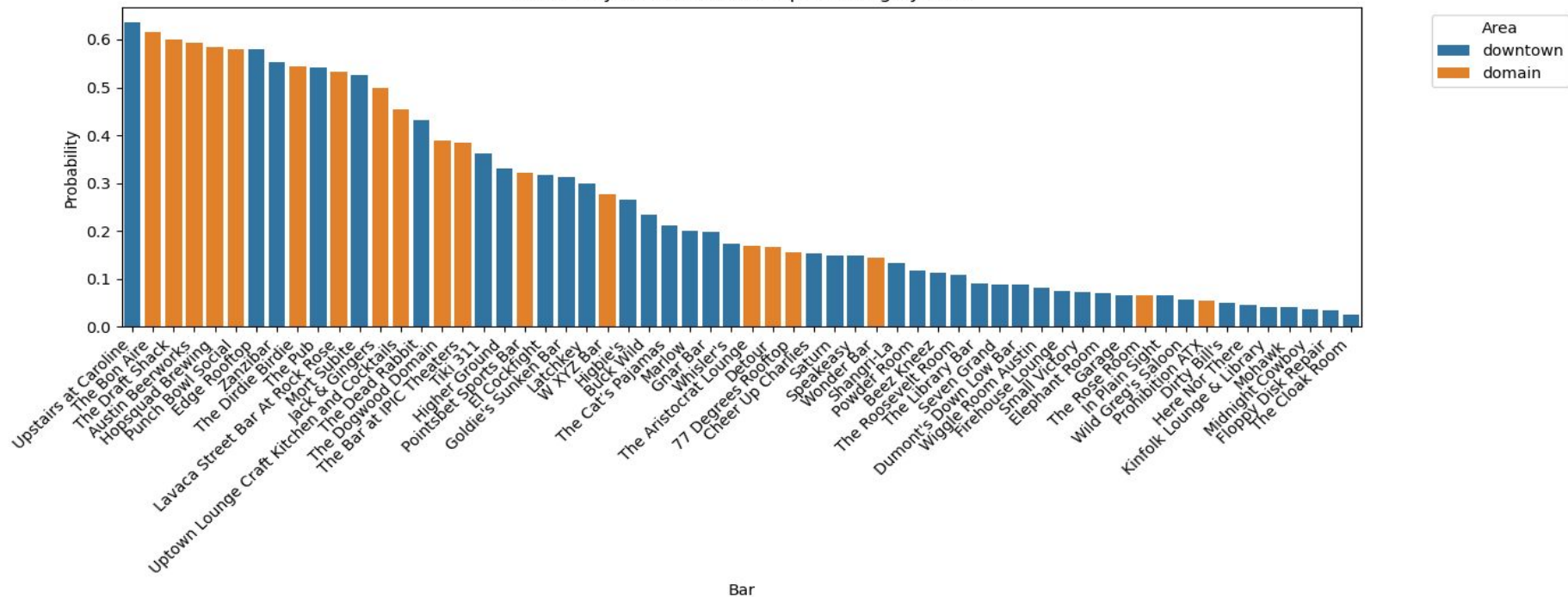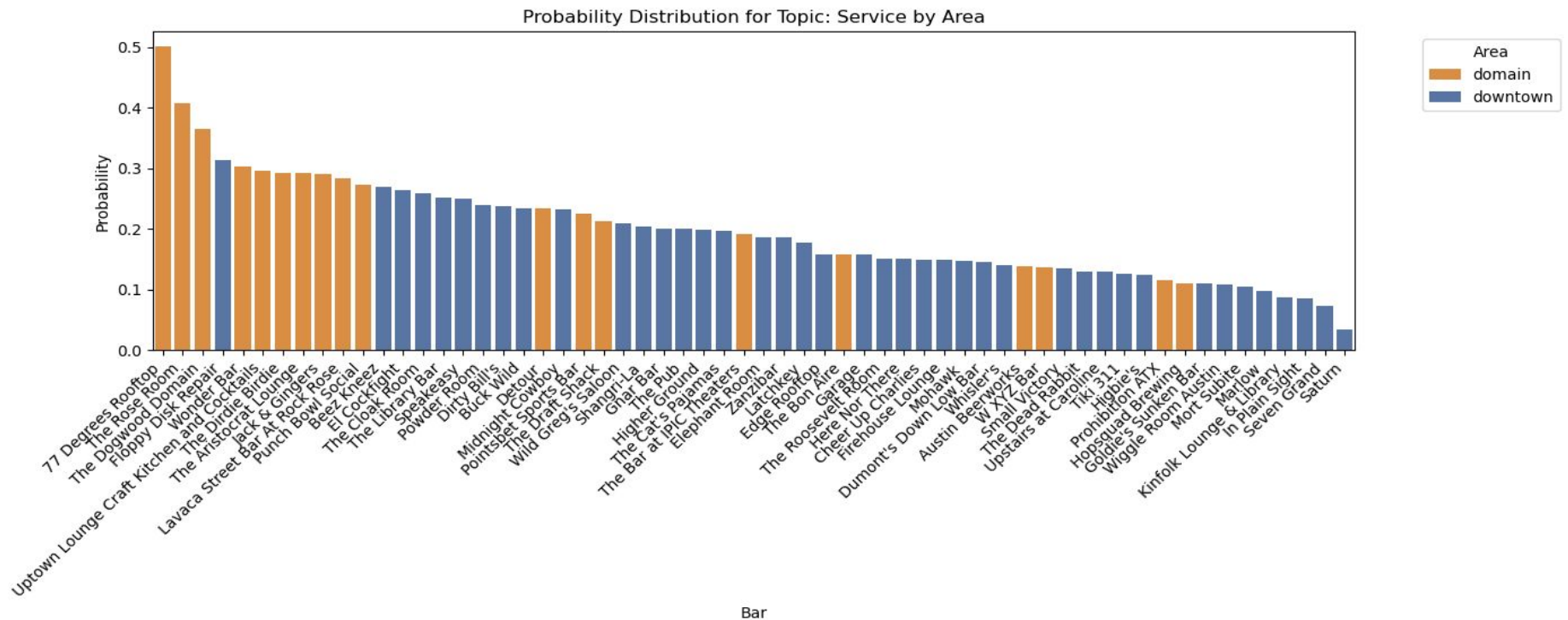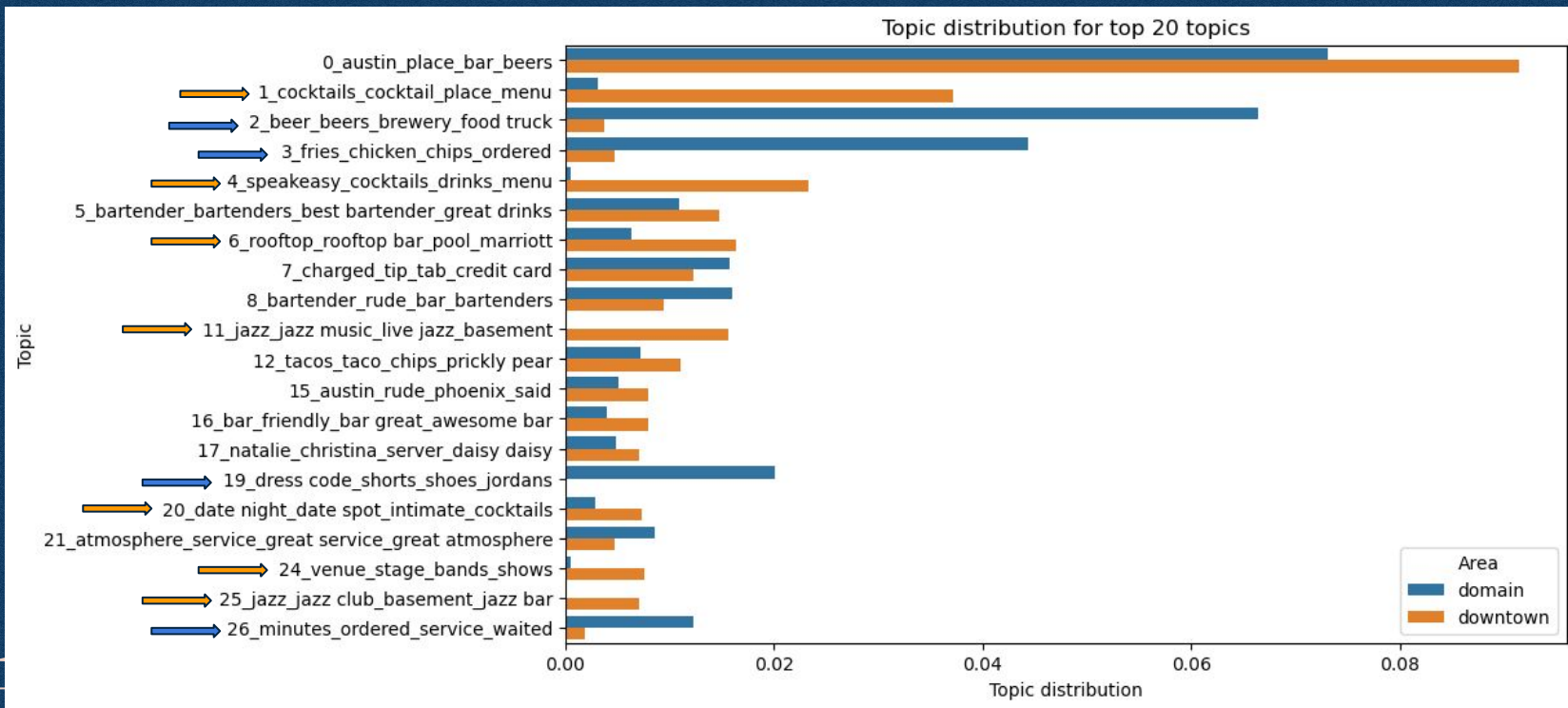
Common Topics

Austin Bars
austin, place, bar, beers, cocktails, brewery

Great Bartenders
bartender, bartenders, best bartender, great

Payment Issues
charged, tip, tab, credit card, bank

Rude Bartenders
bartender, rude, bar, bartenders, order

Tacos
tacos, taco, chips, prickly pear, brisket taco

Downtown-Specific Topics

Jazz

jazz, jazz music, live jazz,
basement, jazz bands

Cocktails

speakeasy, cocktails,
drinks, menu, place

Stage Music

venue, stage, bands,
shows, music venue

Domain-Specific Topics

Food

fries, chicken, chips,
ordered, sandwich

Sports Bar

place watch, nfl, watch
game, sports, lots tv

Security

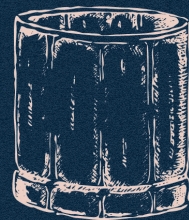bouncer, bouncers, racist,
police, identification

Dress Code

dress code, shorts, shoes,
jordans, white, jeans

03
Recommendation System

Top 20 Frequent Attributes

Top 20 Word Frequency in Domain Reviews
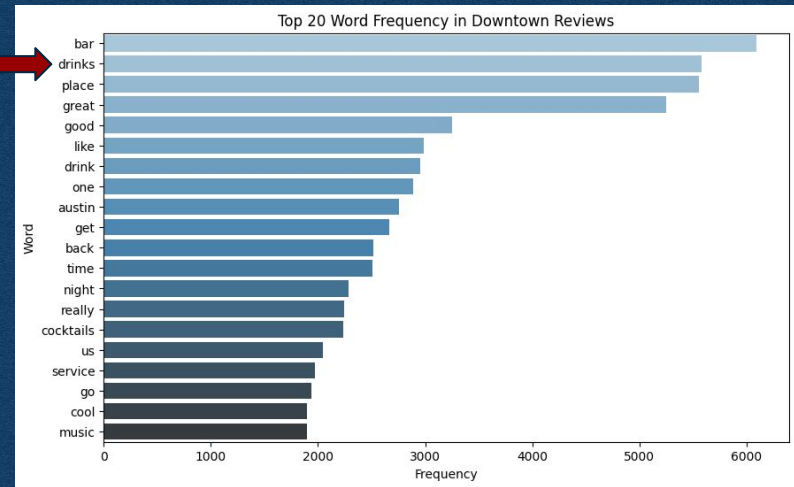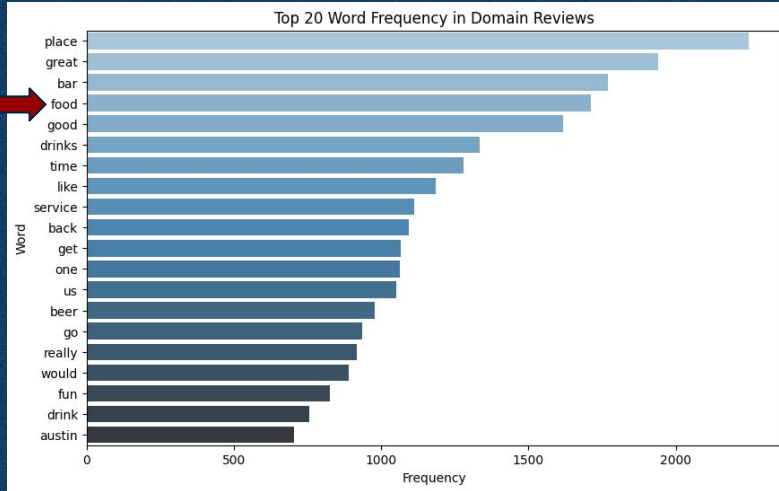
Top 20 Frequent Attributes - Bigram

Top 20 Bigram Frequency in Domain Reviews
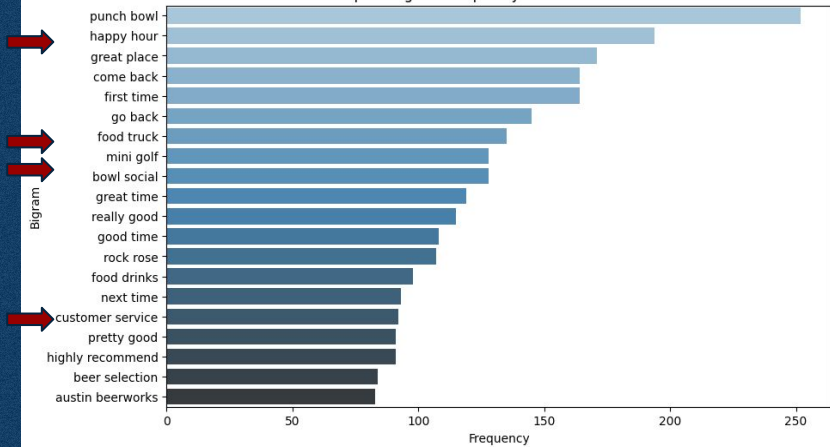
Top 20 Bigram Frequency in Downtown Reviews
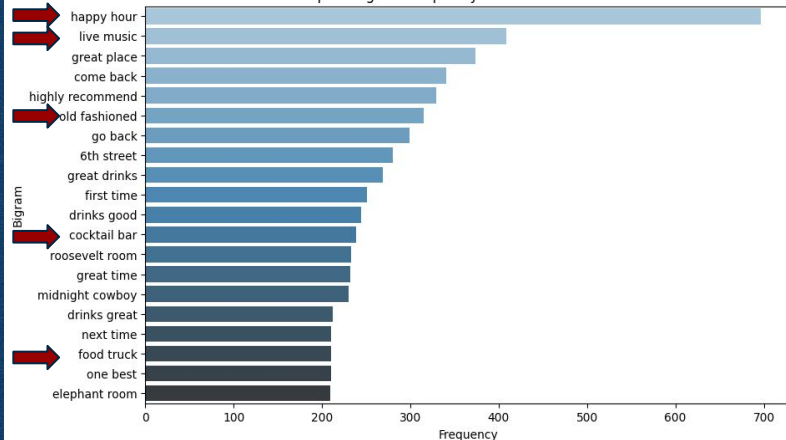
User 1: J. Chen

Music

Aesthetic

Vibes

Recommendation for User 1

Higbie's

overall similarity	0.486569
overall sentiment	0.926505
overall evaluation	0.451784

Saturn

overall similarity	0.513326
overall sentiment	0.877600
overall evaluation	0.453287

Wiggle Room Austin

overall similarity	0.526905
overall sentiment	0.833675
overall evaluation	0.437696

User 2: Professor Yu

Drinks

Atmosphere

Live Music

Recommendation for User 2

Goldie's Sunken Bar

overall similarity	0.611012
overall sentiment	0.890193
overall evaluation	0.545345

Higbie's

overall similarity	0.597682
overall sentiment	0.926505
overall evaluation	0.553472

Pointsbet Sports Bar

overall similarity	0.591457
overall sentiment	0.902450
overall evaluation	0.533414

(Domain)

User 3: Professor Barua

Music

Ambience

Crowd

Recommendation for User 3

Saturn

overall similarity	0.416300
overall sentiment	0.877600
overall evaluation	0.367747

Higbie's

overall similarity	0.412556
overall sentiment	0.926505
overall evaluation	0.382672

Wiggle Room Austin

overall similarity	0.428980
overall sentiment	0.833675
overall evaluation	0.358014

Why always Downtown?

Using Specific word in Domain Reviews
('dress code', 'ping pong')

Spacy

bar	area	overall_similarity	overall_sentiment	overall_eval	overall_rating
Higbie's	downtown	0.516193	0.926505	0.478630	4.714286
Saturn	downtown	0.534020	0.877600	0.469183	4.909091
Goldie's Sunken Bar	downtown	0.509298	0.890193	0.455505	4.518519
Pointsbet Sports Bar	domain	0.504024	0.902450	0.454882	4.500000
Seven Grand	downtown	0.515076	0.874432	0.451276	4.550000

bar	area	overall_similarity	overall_sentiment	overall_eval	overall_rating
Saturn	downtown	0.534020	0.877600	0.469183	4.909091
Beez Kneez	downtown	0.524391	0.524535	0.275620	3.945946
Wonder Bar	domain	0.523889	0.581466	0.306236	3.329218
Floppy Disk Repair	downtown	0.523824	0.643086	0.338102	3.769531
Shangri-La	downtown	0.523508	0.689368	0.361786	3.819527

Bag of word

bar	area	overall_similarity	overall_sentiment	overall_eval	overall_rating
Goldie's Sunken Bar	downtown	0.004050	0.890193	0.003954	4.518519
Punch Bowl Social	domain	0.005286	0.653211	0.003606	3.597836
77 Degrees Rooftop	domain	0.012863	0.440336	0.003579	2.543478
Latchkey	downtown	0.007759	0.777967	0.002489	4.055556
The Rose Room	domain	0.006499	0.403322	0.001536	2.791667

04

Conclusion
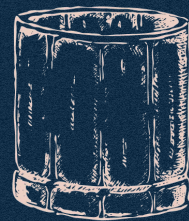
CONCLUSION

After running our system, we observed a clear pattern: **users tend to prefer downtown bars** over those in the Domain.

- Even when user input emphasizes Domain-related attributes, the system still recommends downtown bars, likely due to more favorable reviews for downtown venues.

This recommendation system is ideal for tourists or new residents seeking personalized bar experiences.

- Can be easily adapted to other industries driven by user preferences and reviews (e.g. restaurants, cafes, entertainment venues)