



الأكاديمية السعودية الرقمية
SAUDI DIGITAL ACADEMY



وزارة السياحة
Ministry of Tourism



VISION 2030
رؤية ٢٠٣٠
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA



Tourism in The Kingdom of Saudi Arabia

Web Scraping for: [Booking.com](https://www.booking.com)



Outline

- Quality of Life Program
- Ministry of Tourism
- Case Study
- Dashboard
- Trip Advisor website EDA
- Booking EDA
- Machine Learning Models
- Conclusion



Quality of Life Program



- Launching the tourist visa scheme.
 - Increasing the number of registered sites on the UNESCO World Heritage List.
 - Localizing leadership professions in the hospitality sector.
 - Establishes enabling mechanisms for the private sector and Automating the licensing process.
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Ministry of Tourism



Vision

It seeks valuable and distinctive tourism development with social, cultural, environmental, and economic benefits, based on its Islamic values, the authenticity of its ancient heritage and its traditional hospitality.

Ministry of Tourism



Mission

- facilitating sustainable and successful development of the tourism industry in the Kingdom by providing a clear direction for this industry
 - working through close partnerships with industry leaders and partners to create an environment in which this emerging industry can achieve a high degree of self-sufficiency.
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CaseStudy

The project objective:

- Analyzing the Saudi tourism data to study the state of Riyadh city in Quality of Life Program, which is part of the 2030 Vission .

Dataset Sources:

- Statistical data from the Ministry of Tourism
 - Web scrpaing of TripAdvisor website
 - Web scrpaing of Booking website
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Tripadvisor®

Activity Dataset



Tripadvisor

Activity Dataset Before web scribing

Unnamed: 0	level_0	index	URLS	Title	OverAll	Time	Rank	Unnamed: 8
0	0	0	41 https://www.tripadvisor.com//Attraction_Review...	['Kingdom Centre Tower']	['4.5 of 5 bubbles. 1,861 reviews']	['12:00 AM - 11:59 PM']	['#5	88 things to do in Riyadh']
1	1	1	48 https://www.tripadvisor.com//Attraction_Review...	['National Museum']	['4.5 of 5 bubbles. 696 reviews']	['9:00 AM - 9:00 PM']	['#3	88 things to do in Riyadh']
2	2	2	55 https://www.tripadvisor.com//Attraction_Review...	['Al Masmak Fortress']	['4.5 of 5 bubbles. 619 reviews']	['8:00 AM - 12:00 PM, 4:00 PM - 9:00 PM']	['#4	88 things to do in Riyadh']
3	3	3	62 https://www.tripadvisor.com//Attraction_Review...	['Al Nakheel Mall']	['4.5 of 5 bubbles. 287 reviews']	['9:30 AM - 11:30 PM']	['#2	88 things to do in Riyadh']
4	4	4	68 https://www.tripadvisor.com//Attraction_Review...	['Al Rajhi Grand Mosque']	['5.0 of 5 bubbles. 318 reviews']	['12:00 AM - 11:59 PM']	['#1	88 things to do in Riyadh']



Tripadvisor

Activity Dataset after cleaning

	Title	Rank	Rating_by_Reviews	Review	Time_of_Opening	Time_of_Closing	Type_of_activety
0	Kingdom Centre Tower	5	4.5	1,861	12:00 AM	11:59 PM	things to do
1	National Museum	3	4.5	696	9:00 AM	9:00 PM	things to do
2	Al Masmak Fortress	4	4.5	619	8:00 AM	12:00 PM, 4:00 PM	things to do
3	Al Nakheel Mall	2	4.5	287	9:30 AM	11:30 PM	things to do
4	Al Rajhi Grand Mosque	1	5.0	318	12:00 AM	11:59 PM	things to do



Tripadvisor®

Restaurant Dataset



Restaurant Dataset before the Cleaning

Titles	Reviews	Address	Stars	PriceRange	Cuisine	...	ResturantRank	TypeRank	FoodType	FoodRating	ServiceRating
Oxar Prime Steakhall	0	The Esplanade, Riyadh Saudi Arabia	Nan	15126.0	Steakhouse, American, Barbecue, European, Gril...	...	Nan	Nan	Steakhouse	Nan	Nan
Al Orjouan	1819	The Ritz-Carlton, Riyadh Mekkah Road, Al Hada ...	5.0	4686.0	Mediterranean, Middle Eastern, InternationalSp...	...	Nan	Nan	Mediterranean	[["ui_bubble_rating": "bubble_45"]]	[["ui_bubble_rating": "bubble_45"]]
Zafran Indian Bistro - Rubeen Plaza	894	Northern Ring Road Rubeen Plaza, Exit 2, Riyad...	5.0	550.0	Indian, AsianSpecial	...	2 of 926	1 of 92 Asian	Indian	[["ui_bubble_rating": "bubble_45"]]	[["ui_bubble_rating": "bubble_45"]]
Zafran Indian Bistro - Turki Square	880	Turki Square Mall, Turki Road Makkah Al Mukarr...	5.0	380.0	Indian, Healthy, Soups, GrillSpecial	...	Nan	Nan	Indian	[["ui_bubble_rating": "bubble_45"]]	[["ui_bubble_rating": "bubble_45"]]
Zafran Indian Bistro - Levels Mall	384	Levels Mall, Level 1, Exit 5 Off Northern Ring...	5.0	Nan	Unknown	...	Nan	Nan	Unknown	[["ui_bubble_rating": "bubble_50"]]	[["ui_bubble_rating": "bubble_45"]]



Restaurant Dateset after the Cleaning

	Region	ResturantName	Cuisine	Reviews	Stars	Excellent	VeryGood	Poor	Average	Terrible	FoodRating	ServiceRating	ValueRating	Branch	
0	Riyadh	The Globe	European	2	4.5	633.0	230.0	32.0	94.0	16.0	4.0	4.5	3.5	None	
1	Riyadh	Spazio	French	10	3.5	50.0	59.0	25.0	46.0	20.0	3.5	3.5	3.0	None	
2	Riyadh	Piatto	Italian	0	4.0	339.0	311.0	21.0	83.0	24.0	4.0	4.0	4.0	None	
3	Riyadh	Assaraya	Turkish	Mediterranean	0	4.0	97.0	115.0	21.0	42.0	17.0	4.0	4.0	None	
4	Riyadh	Myazu	Japanese		9	4.5	331.0	101.0	19.0	35.0	15.0	4.5	4.5	4.0	None

Booking.com

Booking Dataset

Booking Dataset Before The Cleaning

URLS	City	Title	Price	RoomType	Check_in	Check_Out
https://www.joldandiyon.com	الرياض	جولدن ديون	US\$96	غرفة سوبيريو	2022-09-03	2022-09-04
https://www.laylala.com	الرياض	فندق لايلا	US\$75	غرفة توأم مع	2022-09-03	2022-09-04
https://www.karamal.com	الرياض	فندق كارم الـ	US\$93	غرفة قياسية	2022-09-03	2022-09-04
https://www.carawan.com	العليا, الرياض	Carawan	US\$66	غرفة مزدوجة	2022-09-03	2022-09-04
https://www.almakan.com	الرياض	Almakan H	US\$46	استوديو	2022-09-03	2022-09-04
https://www.rifdamladz.com	الرياض, الملاذ	فندق ريف الدـ	US\$36	غرفة مزدوجة	2022-09-03	2022-09-04
https://www.manzelara.com	الرياض	manzel ara	US\$32	استوديو	2022-09-03	2022-09-04
https://www.menaal.com	الملاذ, الرياض	MENA AL	US\$37	استوديو	2022-09-03	2022-09-04
https://www.krowan.com	العليا, الرياض	فندق كروان	US\$76	غرفة ديلوكس	2022-09-03	2022-09-04
https://www.sanam.com	العليا, الرياض	أجنحة سنام	US\$55	غرفة قياسية	2022-09-03	2022-09-04
https://www.joudyan.com	العليا, الرياض	Joudyan O	US\$117	غرفة سوبيريو	2022-09-03	2022-09-04
https://www.innyar.com	الرياض	INNYAR H	US\$80	غرفة ديلوكس	2022-09-03	2022-09-04
https://www.braira.com	الرياض	Braira Al W	US\$83	غرفة سوبيريو	2022-09-03	2022-09-04
https://www.almakan.com	الرياض	Almakan H	US\$36	شقة بغرفة نو	2022-09-03	2022-09-04

Booking Dataset After The Cleaning

Price	Distance_to_Airport	Stars	Season	Address	Rate	ResidenceType	WeekDay	Month	Day	CheckInMonth	ResidenceLongitude	ResidenceLatitude	AirPortLongitude	AirportLatitude	DistanceToAirport	ReviewRating
360	Long	3	Fall	شارع سعود	8.1	Room	Weekend	9	4	September	24.6883	46.8029	24.9637	46.7008	32.3101266	Good
281.25	Medium	3	Fall	فندق لايرلا	7.3	Room	Weekend	9	4	September	24.7945	46.8185	24.9637	46.7008	22.24734441	Good
348.75	Long	4	Fall	Prince Mu	8.6	Room	Weekend	9	4	September	24.7548	46.7061	24.9637	46.7008	23.2348003	Good
172.5	Long	3	Fall	King Fahd	6.6	Studio	Weekend	9	4	September	24.6623	46.7012	24.9637	46.7008	33.51421298	Pleasant
135	Long	3	Fall	طريق الملك	5.5	Room	Weekend	9	4	September	24.659	46.7208	24.9637	46.7008	33.94121314	Pleasant
138.75	Long	1	Fall	3311 Afza	5.7	Studio	Weekend	9	4	September	24.6596	46.7209	24.9637	46.7008	33.8752171	Pleasant
285	Long	4	Fall	طريق العروبة	7.8	Room	Weekend	9	4	September	24.7111	46.6712	24.9637	46.7008	28.24624211	Good
206.25	Long	3	Fall	طريق خريص	7	Room	Weekend	9	4	September	24.6809	46.6926	24.9637	46.7008	31.45684824	Good
438.75	Long	4	Fall	6341, Al C	8.1	Room	Weekend	9	4	September	24.6994	46.6827	24.9637	46.7008	29.44555876	Good
300	Medium	4	Fall	شارع 7275	7.1	Room	Weekend	9	4	September	24.7887	46.6511	24.9637	46.7008	20.09463962	Good
311.25	Long	4	Fall	King Abdu	8.4	Room	Weekend	9	4	September	24.6742	46.7181	24.9637	46.7008	32.23828317	Good
337.5	Medium	4	Fall	7401 King	7.6	Room	Weekend	9	4	September	24.8064	46.625	24.9637	46.7008	19.08916051	Good
322.5	Medium	4	Fall	Imam Abd	8.7	Room	Weekend	9	4	September	24.7957	46.7755	24.9637	46.7008	20.14331592	Good
348.75	Long	4	Fall	9033 King	7.2	Room	Weekend	9	4	September	24.7068	46.6753	24.9637	46.7008	28.68167436	Good
221.25	Long	4	Fall	Prince Mu	6.5	Room	Weekend	9	4	September	24.7033	46.6986	24.9637	46.7008	28.95604263	Pleasant
423.75	Medium	4	Fall	الطريق الدائرة	7.6	Room	Weekend	9	4	September	24.7877	46.7133	24.9637	46.7008	19.61091174	Good
348.75	Long	4	Fall	Ministries	7.8	Room	Weekend	9	4	September	24.6646	46.7113	24.9637	46.7008	33.27531978	Good
243.75	Medium	3	Fall	7077 Muh	7.2	Apartment	Weekend	9	4	September	24.7844	46.77	24.9637	46.7008	21.12410211	Good
498.75	Long	4	Fall	شارع العليا	7.4	Room	Weekend	9	4	September	24.7558	46.6533	24.9637	46.7008	23.60896383	Good
300	Long	4	Fall	شارع عبدالرح	7.6	Apartment	Weekend	9	4	September	24.7592	46.7888	24.9637	46.7008	24.41115812	Good
423.75	Long	4	Fall	طريق المطار	8.7	Room	Weekend	9	4	September	24.6897	46.7173	24.9637	46.7008	30.51291363	Good
840	Medium	5	Fall	3478 Nort	8.5	Room	Weekend	9	4	September	24.7641	46.6534	24.9637	46.7008	22.70387091	Good
378.75	Medium	4	Fall	شارع الرشد	7.9	Room	Weekend	9	4	September	24.8178	46.7409	24.9637	46.7008	16.71996603	Good
442.5	Long	4	Fall	شارع العليا ال	7.1	Room	Weekend	9	4	September	24.6843	46.6904	24.9637	46.7008	31.08562149	Good
333.75	Long	4	Fall	8235 King	8.5	Room	Weekend	9	4	September	24.6848	46.7185	24.9637	46.7008	31.06370213	Good

Recommendation:

- Utilization of digital transformation.
 - Focusing on the trending application and international website.
 - Motivate the tourist places to activate their accounts on the related platform.
 - Evaluation Culture.
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ANY QUESTION



Basmaa Almutairi

Nawaf Alkanhal



Najla Alqahtani

Shahad Ghawa