

Coursera Capstone Project

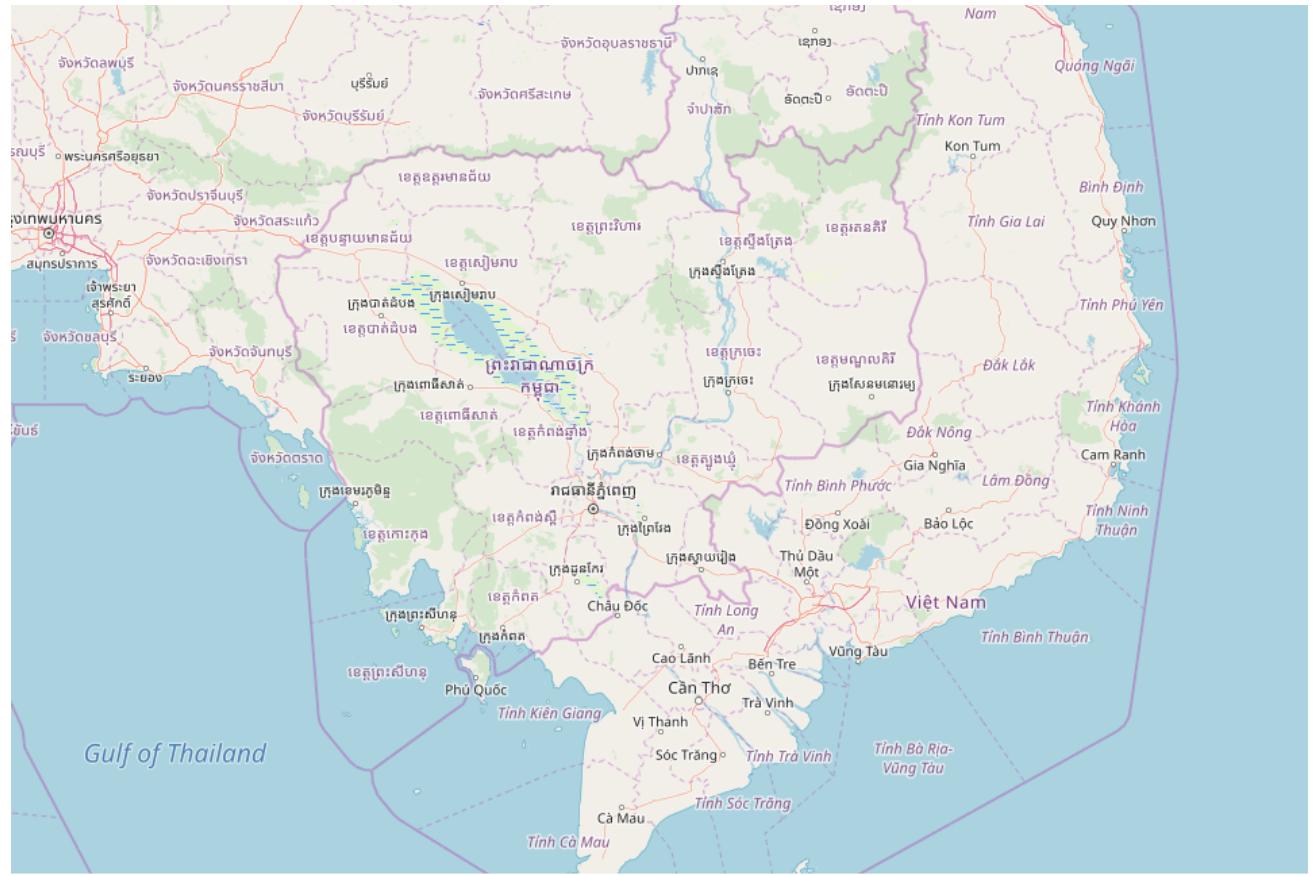
The Battle of Neighborhoods - Final Report (w2)

Sameth Yim

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Cambodia Map

Cambodia, officially the **Kingdom of Cambodia** is a country located in the southern portion of the [Indochina](#) peninsula in [Southeast Asia](#). It is 181,035 square kilometres (69,898 [square miles](#)) in area, bordered by [Thailand](#) to the northwest, [Laos](#) to the northeast, [Vietnam](#) to the east and the [Gulf of Thailand](#) to the southwest.



Phnom Penh City

Phnom Penh, the biggest city in Cambodia and also its wealthiest, is the cultural, commercial and political centre of the country. It is also home to more than a million of Cambodia's population of over 16 million. Covering an area of 345 sq km, Phnom Penh is located in the south-central region of Cambodia, at the confluence of the Tonle Sap, Mekong and Bassac rivers. The city offers extensive cultural and historical attractions, including temples, museums, the Royal Palace and also has accommodation from simple guesthouses to 5-star hotels. Phnom Penh also features good dining facilities as well as a vibrant and varied nightlife.



Business Problem

- Find a good location to start up a restaurant in Phnom Penh City
- Find a good convenient place and enjoyable place like coffee, foods, shops, wine stores,... in Phnom Penh City

Solving Problem

- View histogram to show the economy trend
- View hotels in Phnom Penh city within walking distance (1.5 Km)
- Find the closet restaurants from the staying hotel by Foursquare API

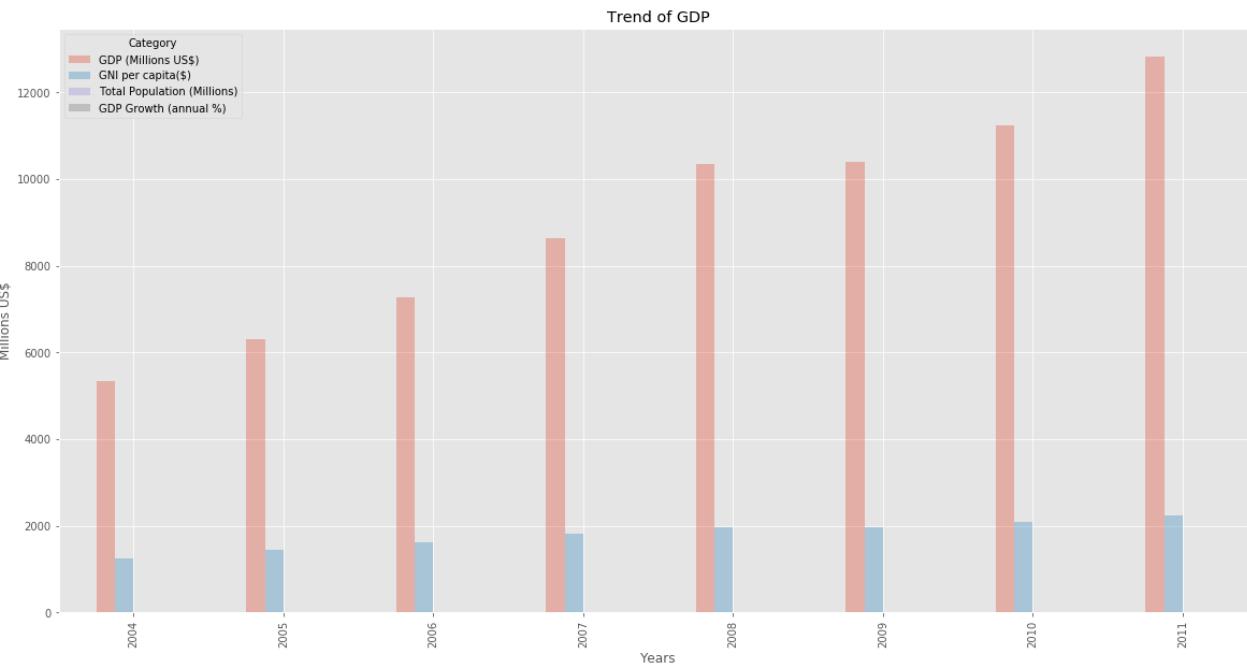
Solving Problem

- Load data from Wikipedia
(https://en.wikipedia.org/wiki/Economy_of_Cambodia)
- View histogram to show the economy trend
- View hotels in Phnom Penh city within walking distance (1.5 Km)
- Find the closest restaurants from the staying hotel by Foursquare API

Result Section

Tend of Cambodia's economy

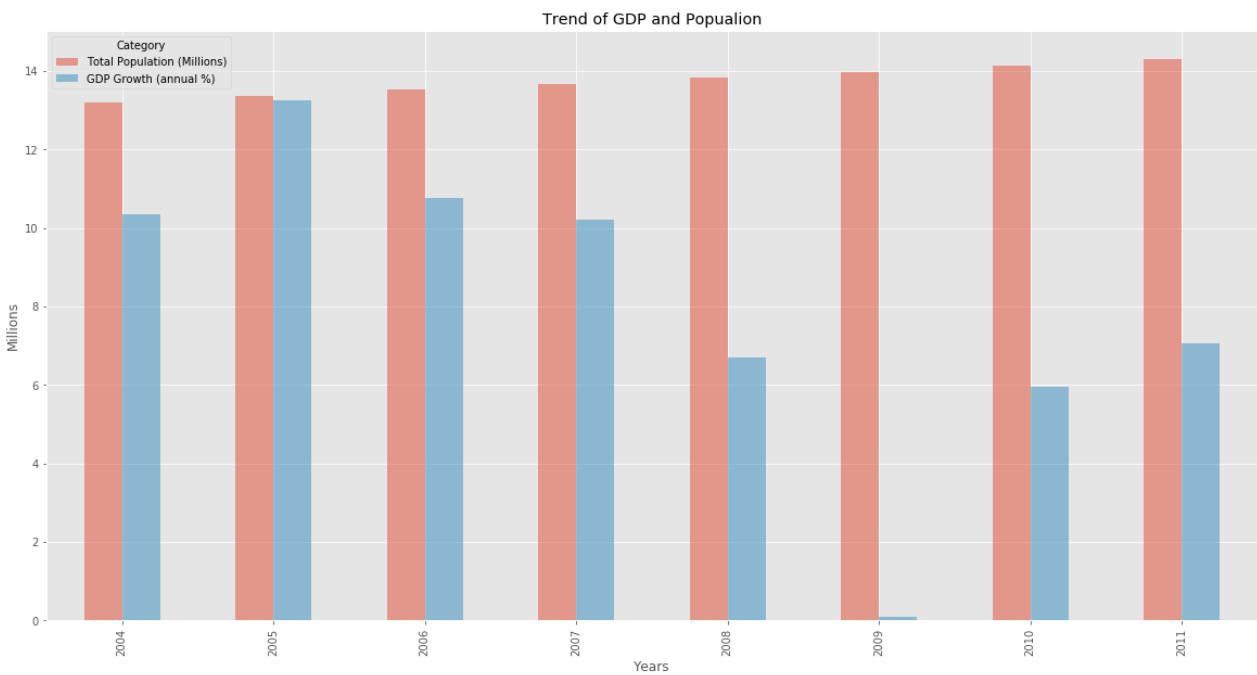
Category	GDP (Millions US\$)	GNI per capita(\$)	Total Population (Millions)	GDP Growth (annual %)
2004	5337.83	1250.0	13.19	10.34
2005	6293.05	1440.0	13.36	13.25
2006	7274.42	1630.0	13.52	10.77
2007	8639.16	1830.0	13.67	10.21
2008	10351.83	1960.0	13.82	6.69
2009	10401.94	1970.0	13.98	0.09
2010	11242.27	2080.0	14.14	5.96
2011	12829.54	2230.0	14.31	7.07



Result Section

Tend of Cambodia's economy

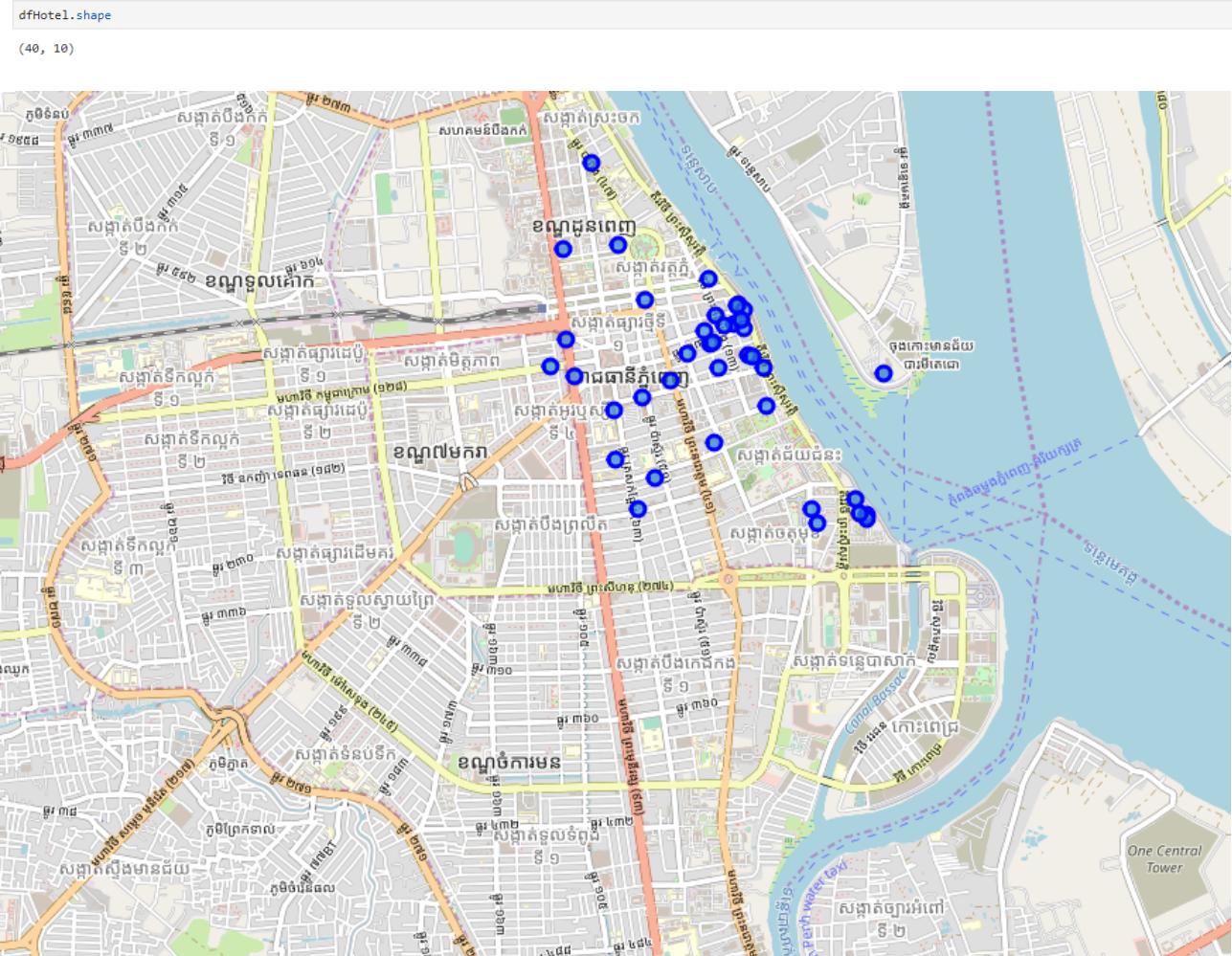
Category	Total Population (Millions)	GDP Growth (annual %)
2004	13.19	10.34
2005	13.36	13.25
2006	13.52	10.77
2007	13.67	10.21
2008	13.82	6.69
2009	13.98	0.09
2010	14.14	5.96
2011	14.31	7.07



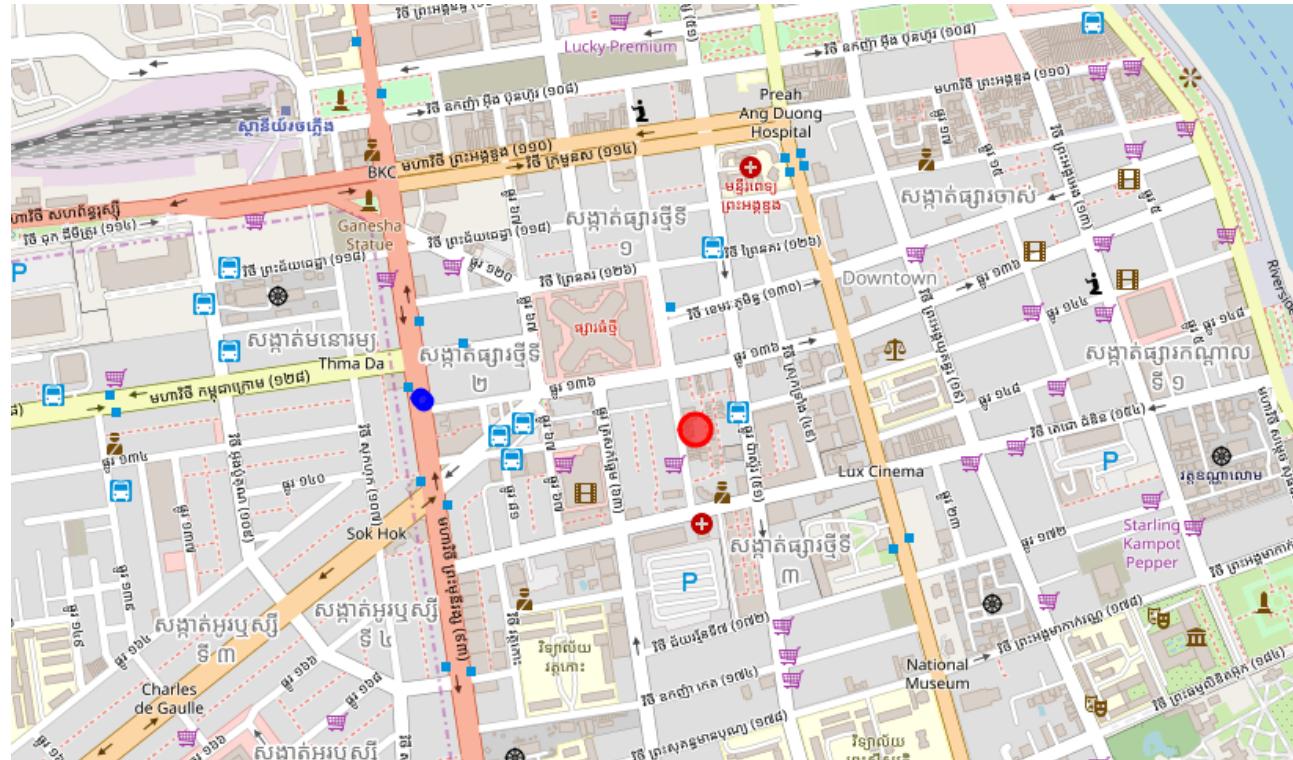
Search for a specific venue category

Amount of hotels locate in Phnom Penh City

	id	Address	location.cc	Country	Distance	Latitude	Longitude	City	name	referralId
0	566444ae490e3f71fdff1afb	Preah Mohaksat Treijani Kossamak	KH	Cambodia	286	11.574328	104.926976	Nan	De Art Boutique Hotel	v-1561710059
1	4d12b87bd1848cfab365be71	No. 1, Street 92, Sangkat Wat Phnom	KH	Cambodia	918	11.576289	104.921491	Phnom Penh	Sunway Hotel	v-1561710059
2	533550f5498ee52eacefc6ca	St Keo Chenda, Phume 1, Sangkat Chroy Changvar	KH	Cambodia	1036	11.568674	104.937639	Phnom Penh	Sokha Phnom Penh Hotel & Residence	v-1561710059
3	4e5c9532183883e00c0ab90c	No. 28-30 ST 130	KH	Cambodia	172	11.571576	104.928505	Phnom Penh	Indochine II Hotel	v-1561710059
4	4bd857a92ecdc7233bad0f2	No 63, Preah Norodom Blvd	KH	Cambodia	720	11.568262	104.924664	Phnom Penh	Sokha Club Hotel	v-1561710059

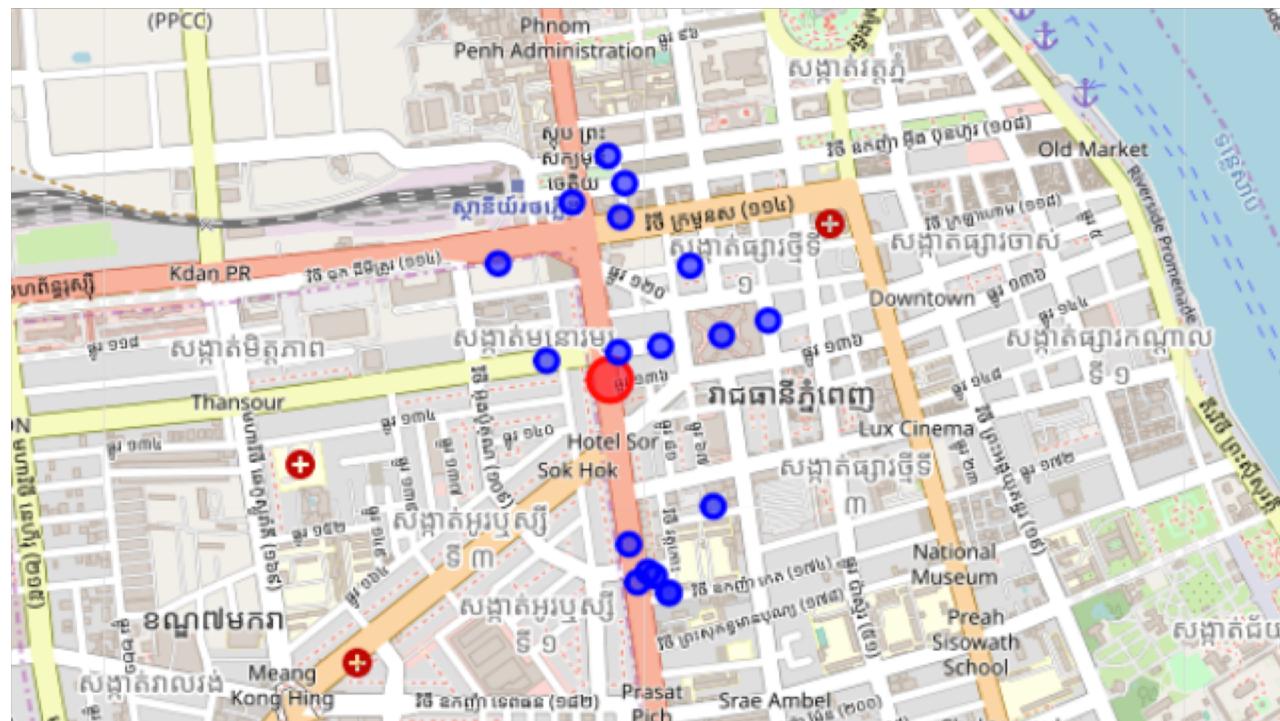


The closest restaurant from Quay hotel



18 restaurant around of KFC

	name	categories	country	distance	Address	lat	lng	state	id
Thmorda Restaurant ទាកដីយ៉ង្ហាន ថ្មី (អូរ)	Cambodian Restaurant	Cambodia	144	[90, Kampuchear Krom St., Toul Kork, ភ្នំពេញ]	11.569060	104.917477	Phnom Penh	4bcd3ff88920b71320929fdc	
Brown Coffee Raintree	Coffee Shop	Cambodia	361	[សៀមរាប]	11.571886	104.918969	Phnom Penh	578738d3498edeb6a9b4c2f2	
ធនាគារឃីយ៉ង្ហាន ល្អកាស់	Cambodian Restaurant	Cambodia	406	[Monivong Blvd, Phnum Pénh, ភ្នំពេញ]	11.572219	104.917962	Phnom Penh	593f75212347241900f78403	
Sam Doo Chinese Restaurant	Chinese Restaurant	Cambodia	68	[សៀមរាប]	11.569232	104.918934	Nan	4c2c2ae357a9c9b6a720f767	
The Billabong Hotel	Hotel	Cambodia	361	[#5 Street 158, Phnum Pénh, ភ្នំពេញ]	11.566158	104.920861	Phnom Penh	4b8ba134f964a520fca432e3	



Discussion section

Through this project, I have done with folium mapping to view Cambodia map and Phnom Penh map. I coded Python to create bar chart for viewing Cambodia's economy trend. Furthermore, I used Foursquare technic to find closest restaurant in Phnom Penh city.

CONCLUSIONS

- In general, i am interesting with overall Coursera project organization, content, explanation, and lab works during the Coursera IBM Certification Course. This Capstone project provided me a great experience and opportunity to practice and apply the Data Science tools with Python.
- I have created a good project that i can present what i have done to show my potential.
- I fell i am becoming a professional Data Scientist. Even some time i am not yet to apply at all but i will continue to explore and create more examples for real practice.
- The end of project and course, thanks to Coursera Team and students have cooperated to improve our knowledge together.