

The background of the entire image is a solid red color. Overlaid on this background is a large, stylized arch made of numerous small, light-red dots. The dots are arranged in a way that they form a continuous, flowing line that curves from the left side, peaks in the upper center, and descends towards the right side. The density of the dots is higher in the center of the arch and tapers off towards the ends.

HUST

ĐẠI HỌC BÁCH KHOA HÀ NỘI
HANOI UNIVERSITY OF SCIENCE AND TECHNOLOGY

ONE LOVE. ONE FUTURE.





ĐẠI HỌC
BÁCH KHOA HÀ NỘI
HANOI UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Hệ thống Thu thập, Lưu trữ, Xử lý và Phân tích Dữ liệu thời tiết dự báo thiên tai

Group: 9

ONE LOVE. ONE FUTURE.

Dataset

- 4 bộ dữ liệu:
- + Historical Hourly Weather Data 2012-2017 NYC
- + Vehicle Collisions in NYC
- + Yellow Taxi NYC
- + 311 Service Requests NYC

Historical Hourly Weather Data

- Du lieu thoi tiet tinh theo gio o New York tu 2012-2017

--- Preview dữ liệu ---

	datetime	temperature	humidity	pressure	weather_desc	\
0	2012-10-01 12:00:00	15.07	58.0	1012.0	few clouds	
1	2012-10-01 13:00:00	15.07	58.0	1012.0	few clouds	
2	2012-10-01 14:00:00	15.10	57.0	1012.0	few clouds	
3	2012-10-01 15:00:00	15.18	57.0	1012.0	few clouds	
4	2012-10-01 16:00:00	15.26	57.0	1012.0	few clouds	

	wind_direction	wind_speed
0	260.0	7.0
1	260.0	7.0
2	260.0	7.0
3	260.0	7.0
4	260.0	7.0

Vehicle Collisions in NYC

- Du lieu cac vu tai nan tai thanh pho New York
- Cac truong thong tin quan trong: Datetime, So nguoi chet, so nguoi bi thuong, dia diem, nguyen nhan tai nan,...
- Tong so ban ghi: ~200.000 (2016)

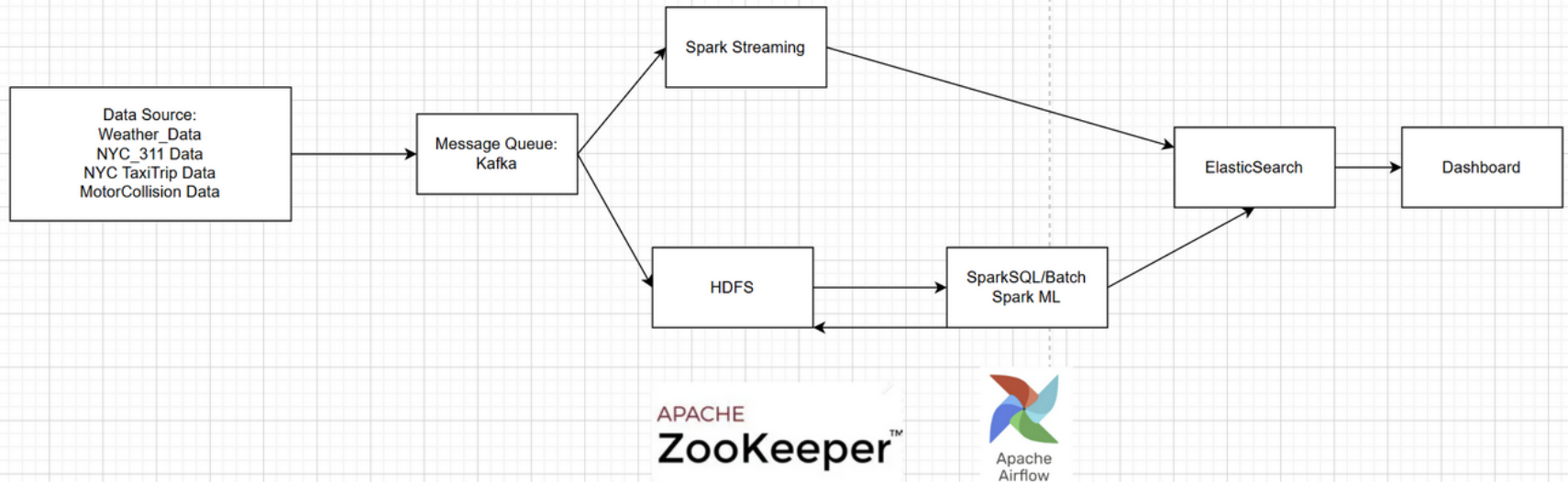
- Du lieu taxi vang o thanh pho New York
- So ban ghi: $\sim(10.000.000)$ (2016)

- Du lieu phan nan cua dan cu New York gui ve
- So ban ghi (~2.200.000) (2016)

--- KẾT QUẢ KHAI PHÁ: THỜI TIẾT TÁC ĐỘNG GỈ ĐẾN KHIẾU NẠI? ---

	antecedents	consequents	support	confidence	lift
67	(Spike_DOOR, Weather_Cold)	(Spike_PLUMBING, Spike_HEAT)	0.051913	0.633333	9.658333
69	(Spike_PLUMBING, Weather_Cold)	(Spike_DOOR, Spike_HEAT)	0.051913	0.575758	8.104895
62	(Spike_DOOR, Spike_PLUMBING, Weather_Cold)	(Spike_HEAT)	0.051913	0.826087	7.752508
64	(Spike_DOOR, Spike_HEAT, Weather_Cold)	(Spike_PLUMBING)	0.051913	0.904762	6.758017
19	(Weather_Hot)	(Spike_WATER)	0.051913	0.513514	6.712355
44	(Spike_DOOR, Weather_Cold)	(Spike_HEAT)	0.057377	0.700000	6.569231
71	(Spike_HEAT, Weather_Cold)	(Spike_DOOR, Spike_PLUMBING)	0.051913	0.612903	6.409217
65	(Spike_PLUMBING, Weather_Cold, Spike_HEAT)	(Spike_DOOR)	0.051913	0.904762	6.020779
38	(Spike_PLUMBING, Weather_Cold)	(Spike_HEAT)	0.057377	0.636364	5.972028
57	(Spike_DOOR, Weather_Cold)	(Spike_PLUMBING)	0.062842	0.766667	5.726531

Pipeline triển khai



- 4 producer, moi producer tuong ung voi 1 loai du lieu
- ≥ 2 group consumer

Spark Streaming

A large, stylized graphic of the HUST logo. It features a red background with a white, dotted circular pattern that forms a ring around the word "HUST".

HUST

A large, stylized graphic of the HUST logo, composed of concentric circles of dots in a lighter shade of red, set against a solid red background.

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THANK YOU !