

Stage Mobila

A natural language processing system

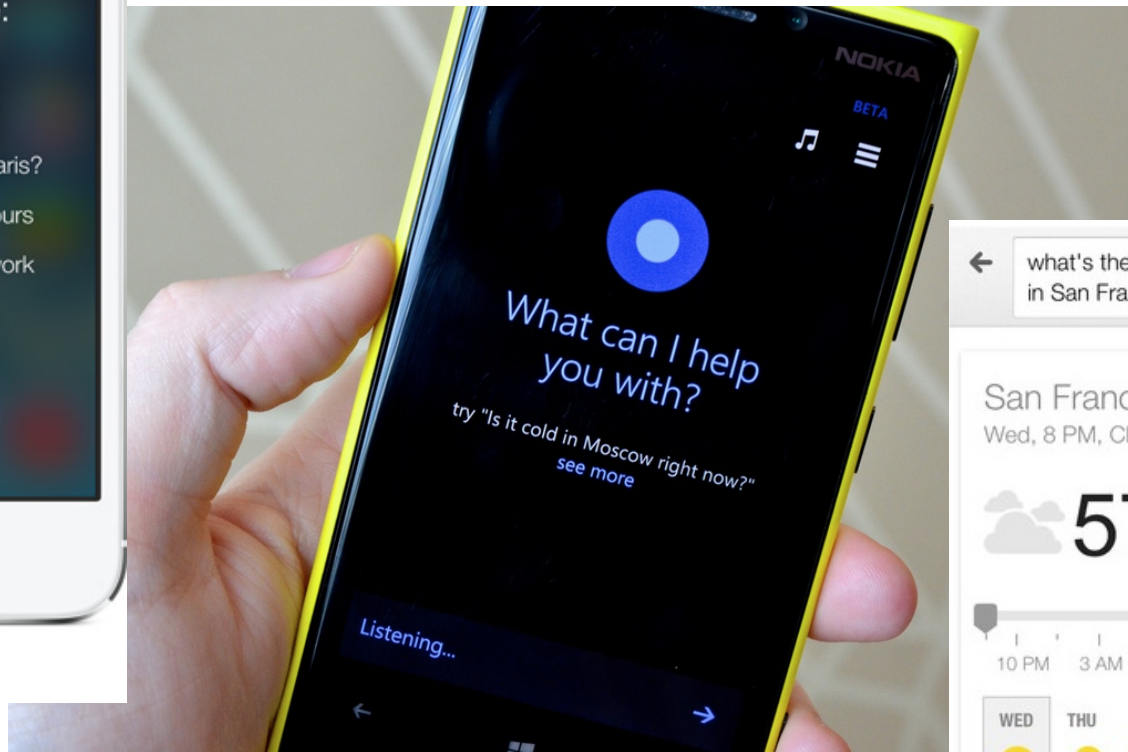
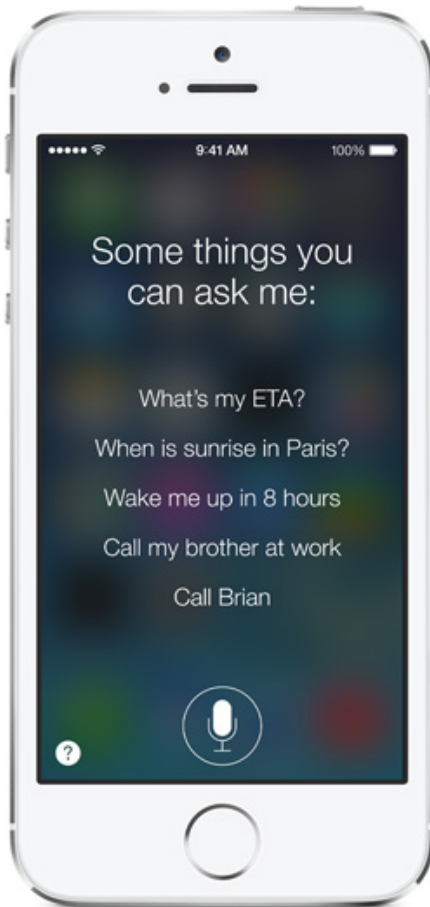


Problem



```
SELECT cdid, artist, title, type
FROM cd_dvd
WHERE artist = 'Pink Floyd'
AND type = 'cd';
```

Solution





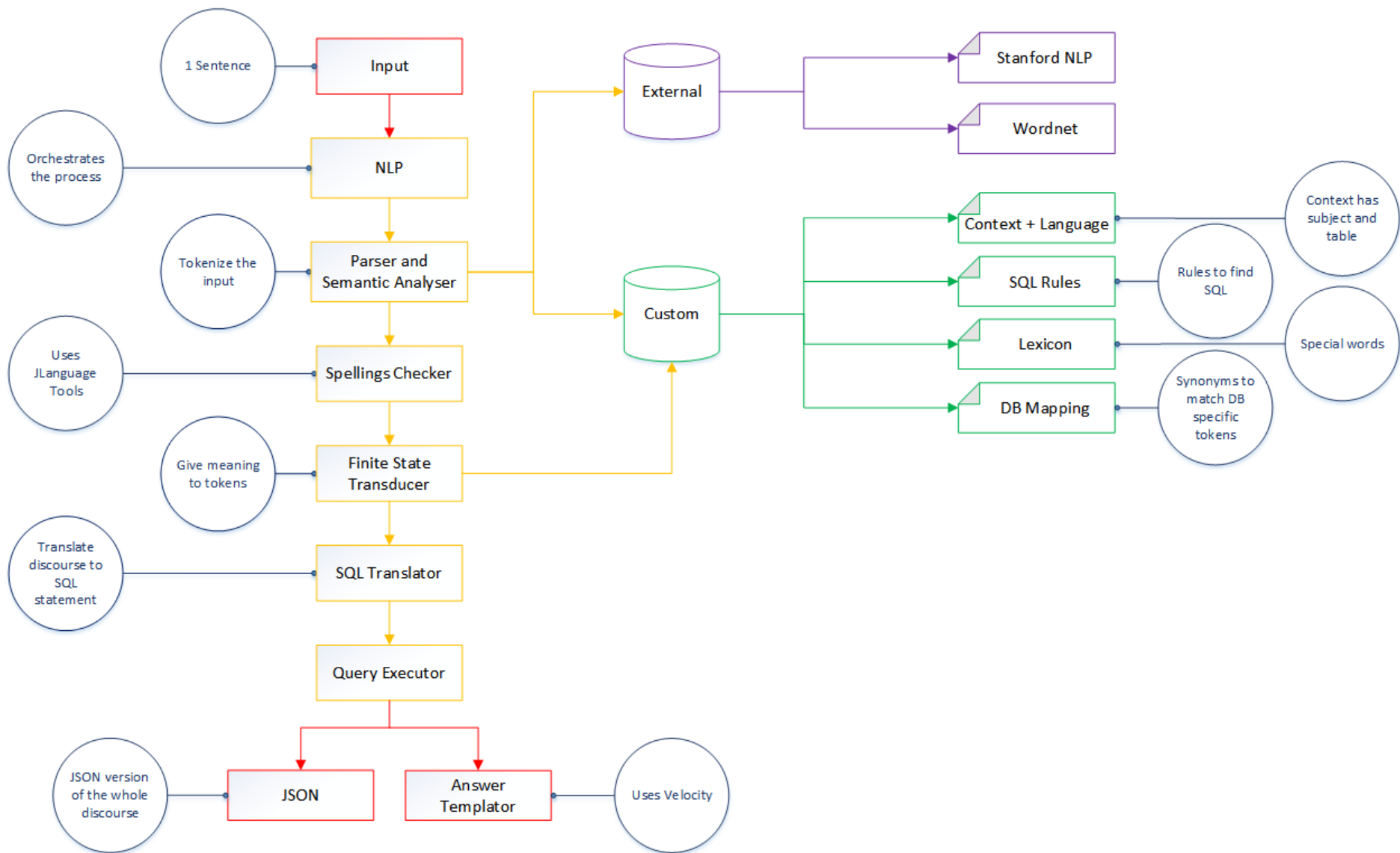
Dialogue System

Send

- English
- Chinese
- Nederlands

[11:03:55] **Computer**

Hello Mr. X, We currently have a french St.-Emillion in promotion - 10% reduction, are you interested and do you want more information?



Demo

MOBiLA

Mobile Enterprise Applications

SQL Queries engine

English: From which year is the wine with the name in English

Chinese: 从哪年开始有这款葡萄酒-中文

Show me all the wines before the year 2000 and after the year 2000

Go

Here are all the wines that I have found

region	id	producer	year	name
France	1	Adn	2000	Impressa (also reserve)
Chateau	0	Henry	2000	Chateau & Pyle



NLP Question chinese

English: From which year is the wine with the name St-Emilion

Chinese: 從哪年是法國阿該名酒St-Emilion

從哪年法國阿該名酒Imperial Gran reserva

Get

year

2010



NLP Question Nederlands

English: From which year is the wine with the name St-Emilion

Chinese: 從哪年是法國同該名稱St-Emilion

Van welk jaar is de wijn met de naam St-Emilion?

Get -





Dialogue System

Send

[12:36:07] Computer

producent

Xavier

Do you want more information about this product?

[12:36:07] Person

Implementation

Super easy

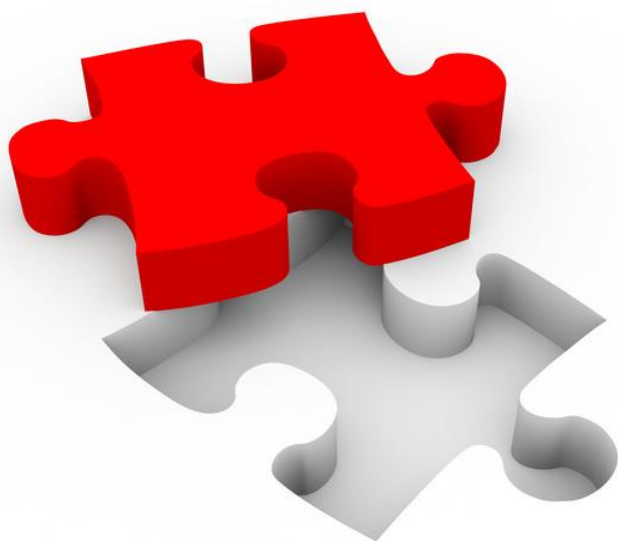
DB Mapping

▲ id	🔑 map	synonym	🔑 type	🔑 language_fk	🌿 relation_fk
1	wine	,wine,wines,	table	1	(NULL)
2	weather	,weather,	table	1	(NULL)
3	year	,year,years,	column	1	1
4	producent	,producent,producents,producer,produce,	column	1	1
5	name	,name,names,	column	1	1
6	region	,region,regions,origin,	column	1	1
7	temperature	,temperature, temperatures,	column	1	2
8	place	,place, places,	column	1	2

SQL Rules

🔑 id	is_column	is_concat	output	🔑 rule	synonym	🔑 language_fk
1	0	0	AVG	avg_stmt	,average,	1
2	0	0	BETWEEN	between_stmt	,between,betwixt,tween,	1
3	1	0	COUNT(*)	count_stmt	,count,number,enumerate,numerate,matter,weigh,	1
4	0	0	=	equal_stmt	,equal,be,touch,rival,match,equalize,equalise,equate,	1
5	0	0	EXCEPT	except_stmt	,except,demur,exclude,leave out, leave off, omit, take o...	1
6	0	0	EXISTS	exists_stmt	,exists,	1
7	0	0	>	greater_stmt	,greater,bigger,older,more,more than,bigger than,after,	1
8	0	0	HAVING	having_stmt	,having,hold,feature,experience,receive,have,got,	1
9	0	0	<	less_stmt	,less,smaller,younger,smaller than,less than,before,	1
10	0	0	LIKE	like_stmt	,contains,begins,	1
11	0	0	MAX	max_stmt	,maximum,maximal,biggest,most,largest,the most,	1
12	0	0	MIN	min_stmt	,minimum,minimal,smallest,least,	1
13	0	0	SELECT	select_stmt	,select,choose,take,select,pick out,show,demo,exhibit,w...	1
14	1	0	*	all_stmt	,all,everything,	1
15	0	1	AND	and_stmt	,and,	1

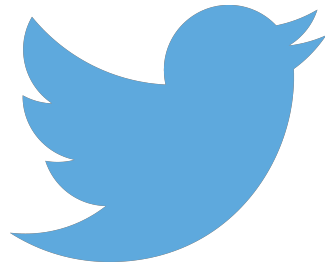
Business



Knowledge =



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