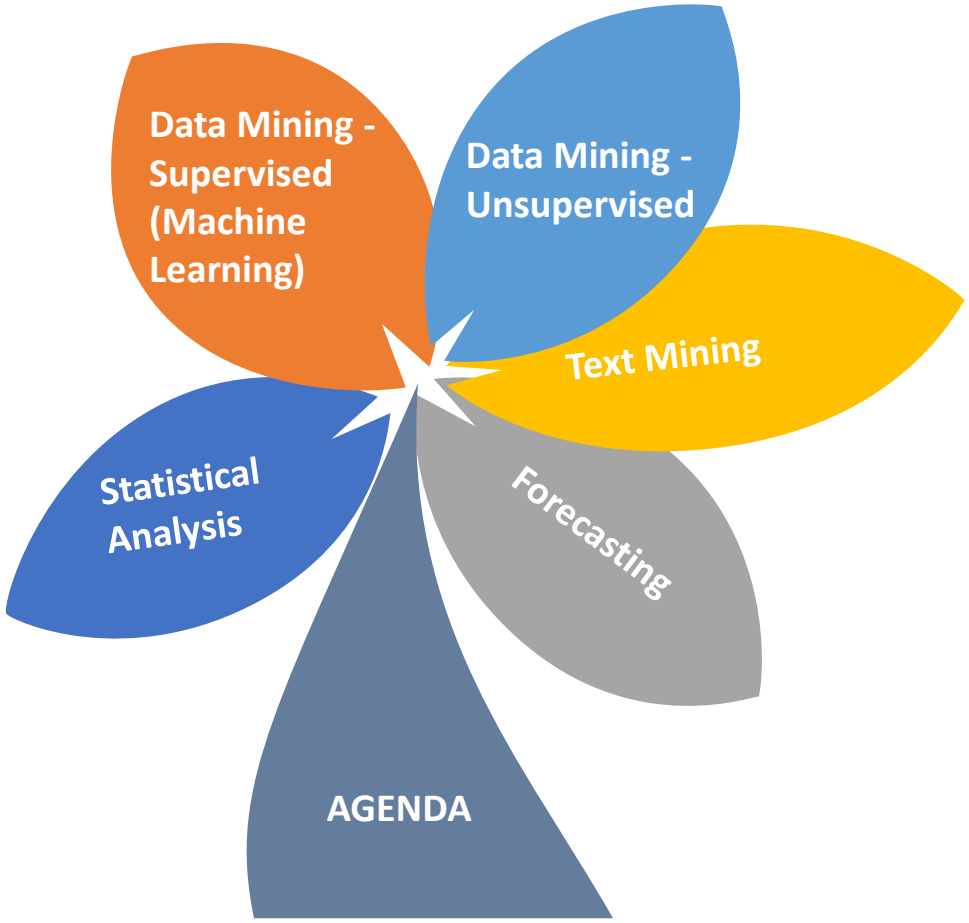
Certification Program Data Science using Python & R

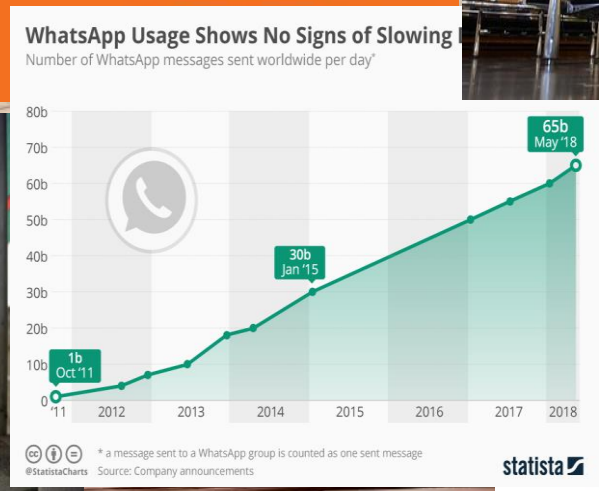
Overall Agenda



Agenda – Data Science Primer

1. Introduction to Data Science & Analytics
2. Data in Information Age
3. Big Data in Real Time
4. Demand & Supply Gap for Data Scientists
5. Analytical Tools
6. Average Salary for Data Scientists
7. Case Study
8. Stages of Analytics
9. CRISP DM

Data in Information Age



BIG DATA! – What happens in 1 minute

473,400 tweets **every 60 seconds**

YouTube: **4,333,560** users watch video's **every minute**

12,986,111 messages sent in WHATSAPP in every 60 seconds

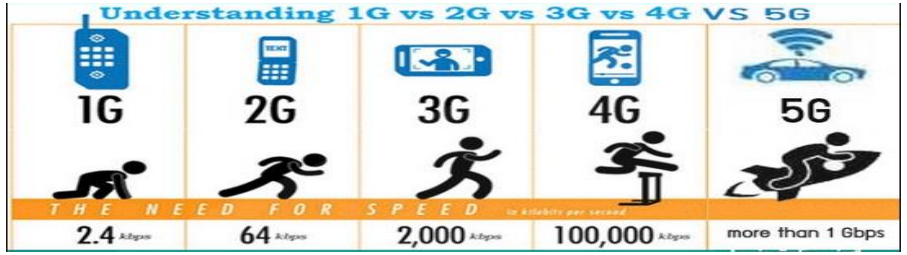
1111 shipping's every **minute**

100 terabytes of data uploaded **daily**
http://www.dnaindia.com/scitech/report-facebook-saw-one-billion-simultaneous-users-on-aug-24-2119428

Processing **100 petabytes** a day
(1 petabyte = 1000 terabytes)

More than **1 million** customer transactions **every hour**
2.5 petabytes of data collected **per hour**

https://www.cnbc.com/2018/11/11/alibaba-singles-day-2018-record-sales-on-largest-shopping-event-day.html



Untapped Opportunity

- Data Scientist- Sexiest job of 21st century – **Harvard**
- Why Data Science is the career of the future – **Towards Data Science**
- Demand for data scientists is booming and will only increase - **TechTarget**
- There is a shortage of data scientists in the US - **Canadaupdates.com**
- August LinkedIn Workforce Report: Data Science Skills are in High Demand Across Industries - **LinkedIn Workforce Report**
- Desperate for Data Scientists – LinkedIn analysis
- The Hunt For Unicorn Data Scientists Lifts Salaries For All Data Analytics Professionals - **Forbes.com**
- Demand and Salaries for Data Scientists Continue to Climb – Indeed.com
- Data Scientists: Why are they so expensive to hire?

Analytical Tools Comparison

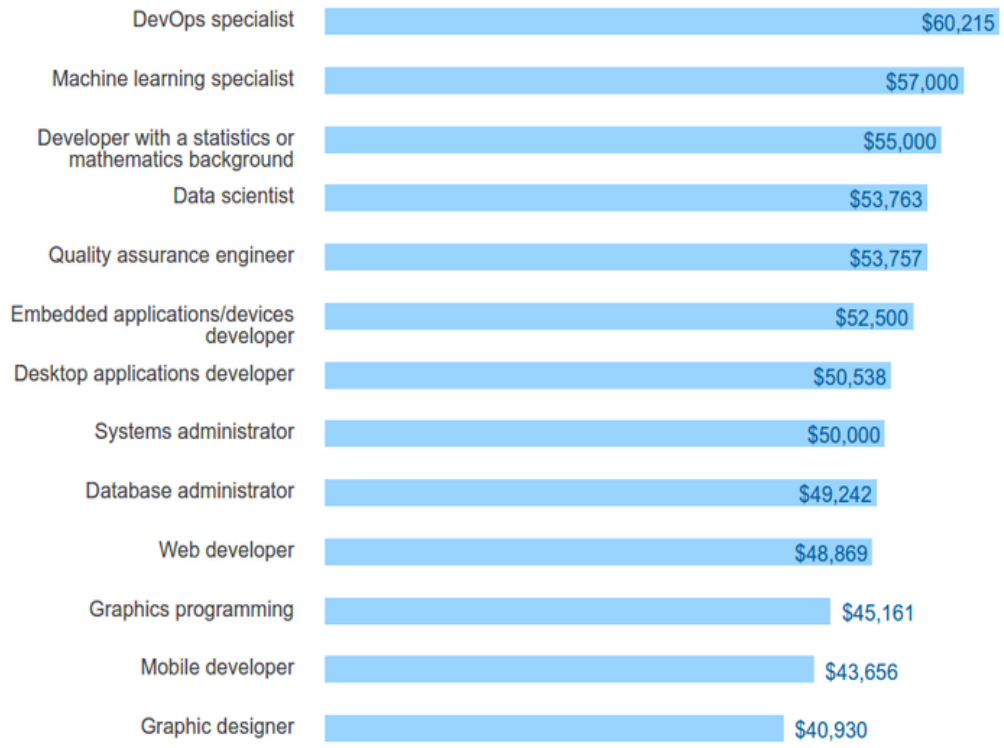
Rank	Tool	2015	Rank	Tool	2016	Rank	Tool	2017	Rank	Tool	2018
1.	R	**46.90%**	1.	R	**49.00%**	1.	**Python**	52.60%	1.	**Python**	**65.60%**
2.	RapidMiner	31.50%	2.	Python	45.80%	2.	R	52.10%	2.	RapidMiner	52.70%
3.	SQL	30.90%	3.	SQL	35.50%	3.	SQL	34.90%	3.	R	48.50%
4.	Python	30.30%	4.	Excel	33.60%	4.	RapidMiner	32.80%	4.	SQL	39.60%
5.	Excel	22.90%	5.	RapidMiner	32.60%	5.	Excel	28.10%	5.	Excel	39.10%
6.	KNIME	20.00%	6.	Hadoop	22.10%	6.	Spark	22.70%	6.	Anaconda	33.40%
7.	Hadoop	18.40%	7.	Spark	21.60%	7.	Anaconda	21.80%	7.	Tensorflow	29.90%
8.	Tableau	12.40%	8.	Tableau	18.50%	8.	Tensorflow	20.20%	8.	Tableau	26.40%
9.	SAS	11.30%	9.	KNIME	18.00%	9.	scikit-learn	19.50%	9.	scikit-learn	24.40%
10.	Spark	11.30%	10.	scikit-learn	17.20%	10.	Tableau	19.40%	10.	Keras	22.20%

Source: KDNuggets

Average Salary

Salary

Salary by Developer Type



Median of 12,475 responses; USD

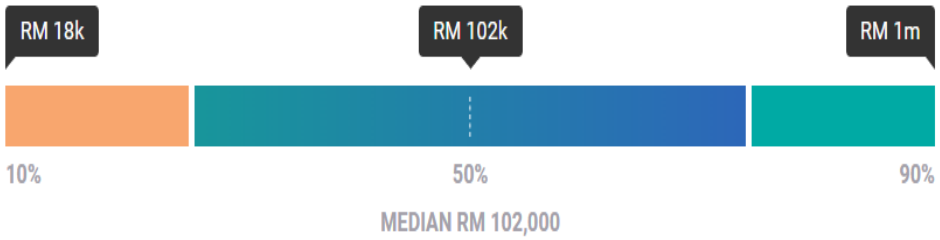
Average Data Scientist Salary in Kuala Lumpur

RM 102,000

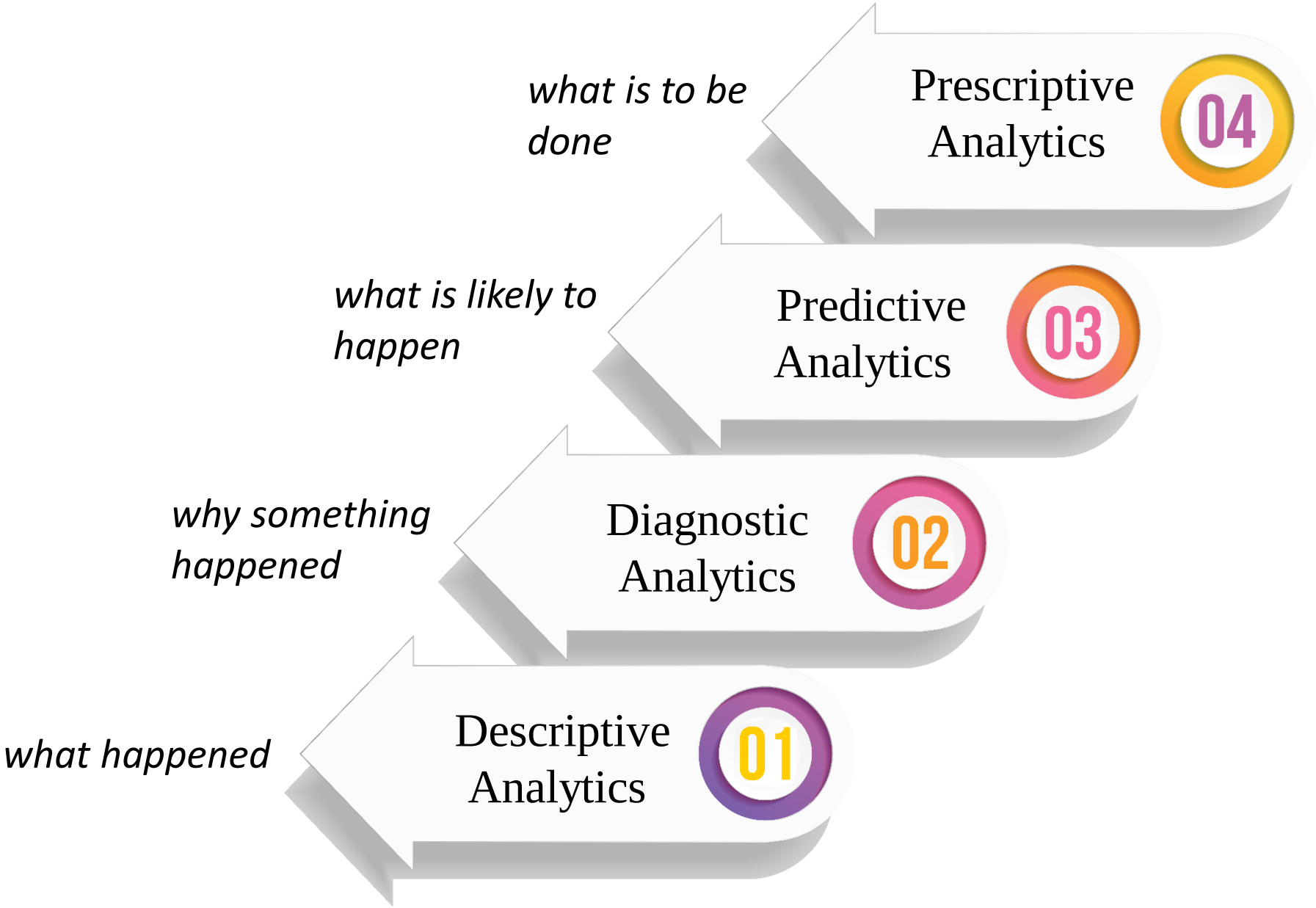
Avg. Salary

Help us gather more data! Is Data Scientist your job title?
Find out what you're worth.

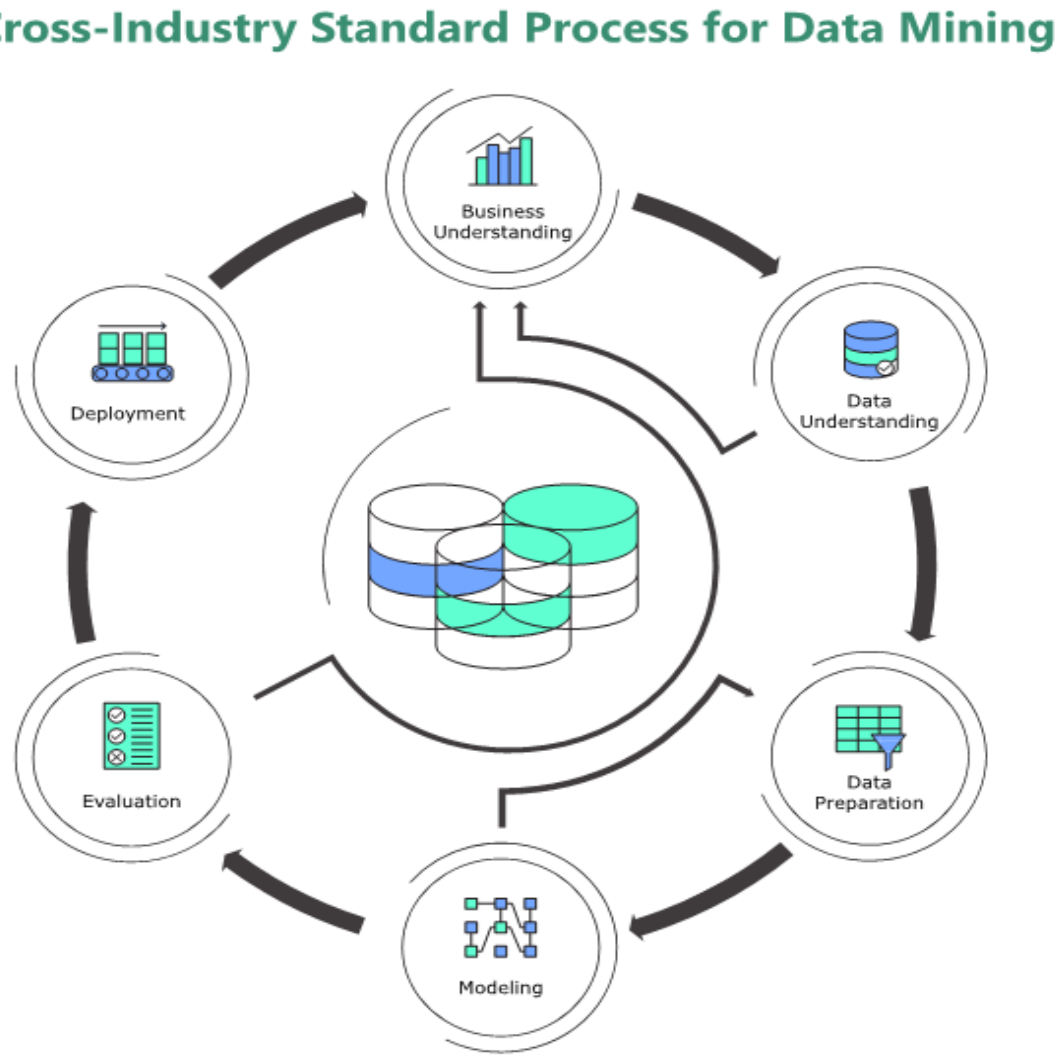
The average pay for a Data Scientist in Kuala Lumpur is RM 102,000 per year.



Stages of Analytics



CRISP DM



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