

# Data Analytics



<http://bit.ly/32Sw8Kv> - ลงทะเบียน

<http://bit.ly/2CVdvL7> - สไลด์

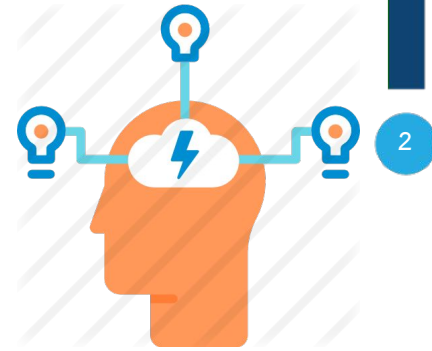
<http://bit.ly/2COhzwU> - เอกสาร

โดย

ดร.อนันท์ ชกสุริวงศ์

ภาควิชาวิศวกรรมคอมพิวเตอร์ คณะวิศวกรรมศาสตร์

# Agenda



Machine Learning บน Google Colab

- เรียนรู้การใช้งานข้อมูล
- วิเคราะห์ข้อมูลและแสดงผล

**Day 1**

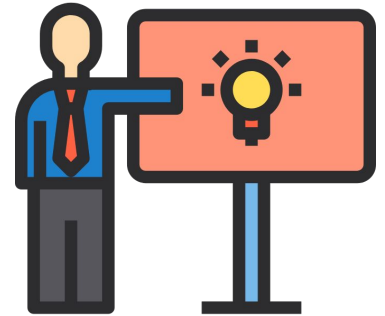
Google Data Analytics

- พื้นฐาน Google Data Studio
- Case Study

**Day 2**

# What is Google Data Studio?

Google Data Studio is a FREE data visualization tool that allows you to import data from multiple sources and visualize them on a report that is easy to read and share. You can import data from any source using Google Sheets or Data Connectors to create the report you want.



# Why Google Data Studio?

Google Data Studio marks the birth of a new era of how organizations consume, share, and use analytics data to drive insights and create even greater business value.

— Joao Correia - Director of Data Insights, Blast Analytics & Marketing



# Benefits of Data Studio

1. You can create comprehensible and understandable reports
2. Pull data from multiple sources - a single report can use data from two or more sources
3. Create dynamic reports - easy to refresh data
4. Create fully customizable reports - drag & drop
5. You can get updates in real time
6. You can create unlimited reports
7. It's FREE

# Documents (anant.c@psu.ac.th)

6

- <https://datastudio.google.com/overview>
- <http://bit.ly/2C0hzwU>
- <http://bit.ly/2p1G6WW>

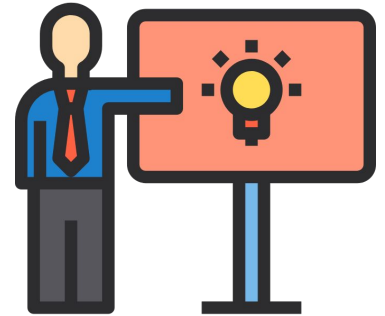
## Add-on

- <http://bit.ly/2Ks6buP>
- <https://www.kaggle.com/datasets>
- <http://bit.ly/33XCZ6Q>



# What is Google Colaboratory?

Colaboratory is a free Jupyter notebook environment that requires no setup and runs entirely in the cloud. With Colaboratory you can write and execute code, save and share your analyses, and access powerful computing resources, all for free from your browser.



# Documents (Basic)

- <https://colab.research.google.com/notebooks>
  - basic\_features\_overview.ipynb
  - io.ipynb
  - charts.ipynb
  - snippets/altair.ipynb





# Documents (Advance)

## Document

- <http://bit.ly/32PRS9S> [The Beginner's Guide]
- <http://bit.ly/20my1df> [Object detection]
- [https://github.com/matterport/Mask\\_RCNN](https://github.com/matterport/Mask_RCNN)

## Let's do it

- <http://bit.ly/2NU0N5Z> [Intro to pandas]
- <http://bit.ly/355MnoX> [Object Recognition]
- <http://bit.ly/2Xm9Yik> [Video Recognition]

ขอขอบคุณ

# มา Update ความรู้กันด้วย 10 เทคโนโลยีที่ควรรู้ในปี 2561

## Artificial Intelligence



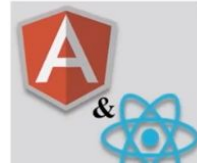
### Big Data



## Cloud Computing



## Angular & React



## Blockchain



## Fast & DevOps



## Internet of Things (IoT)



### Intelligent Apps



## AR & VR –



## RPA – Robotic Process Automation



No Code Required



Automate Repetitive

# RPA – Robotic Process Automation



No Code Required



Automate Repetitive Tasks



Cost Savings

10

Top 3 Tools  
Implementing RPA

UiPath

blue  
prism



A  
AUTOMATION  
ANYWHERE

Companies

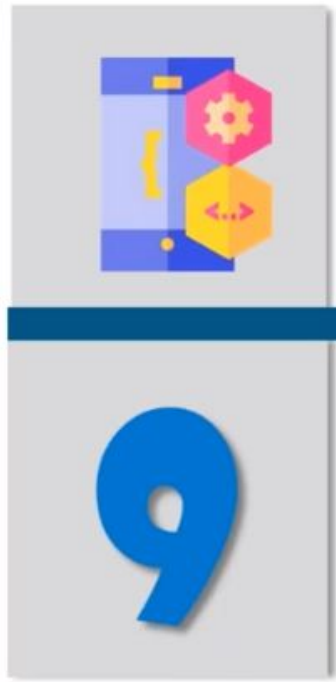
Deloitte.

IBM

intel

DELL

# Intelligent Apps



**What are Intelligent Apps?**  
 One can see intelligent apps as an appliance of artificial intelligence and advanced machine learning in the form of an application.

## Applications

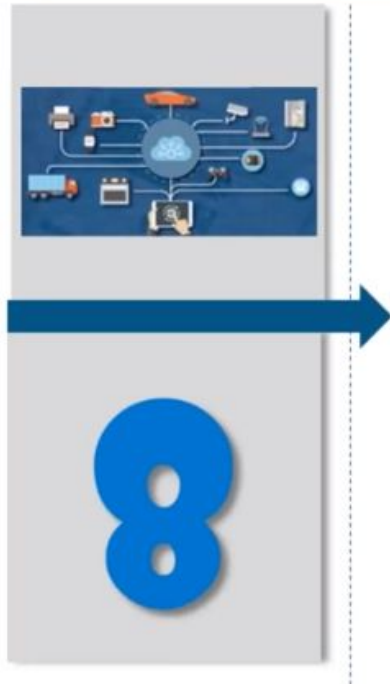
- Chat-bots
- Virtual Assistants



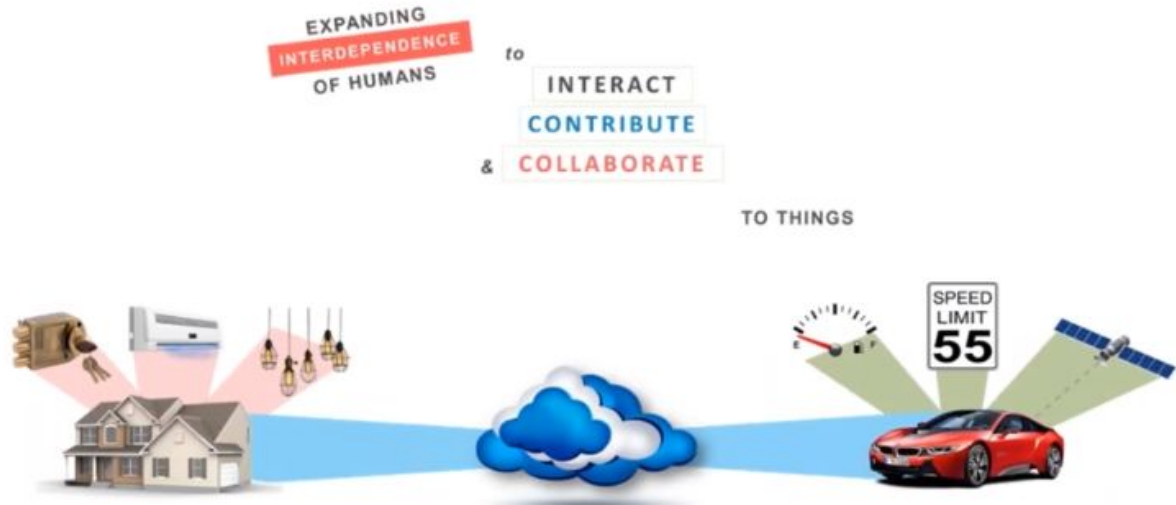
## Companies



# Internet of Things (IoT)



Connecting *everyday things* embedded with *electronics, software* and *sensors* to the internet enabling them to *collect* and *exchange data*

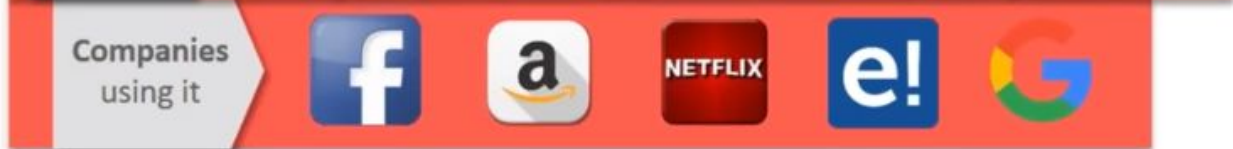


# 7. DevOps



**What Is DevOps?**

- Software development strategy aimed to eliminate the *Silo* between **development & operations**.
- Involves *Continuous Development, Continuous Testing, Continuous Integration, Continuous Deployment & Continuous Monitoring*.

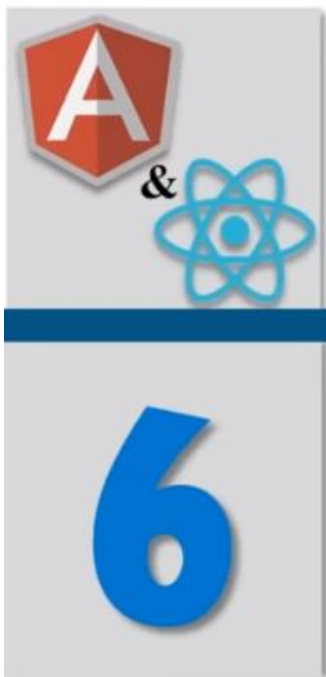


**Features**

- Shorter software development lifecycles → **FASTER**
- Improved quality of software produced → **BETTER**
- Improved work environment → **TEAM COLLABORATION**



# Angular & React



Popular JavaScript based Framework for creating Modern Web Application

## Companies



## Features



Speed & Performance



Modular



Native App Development



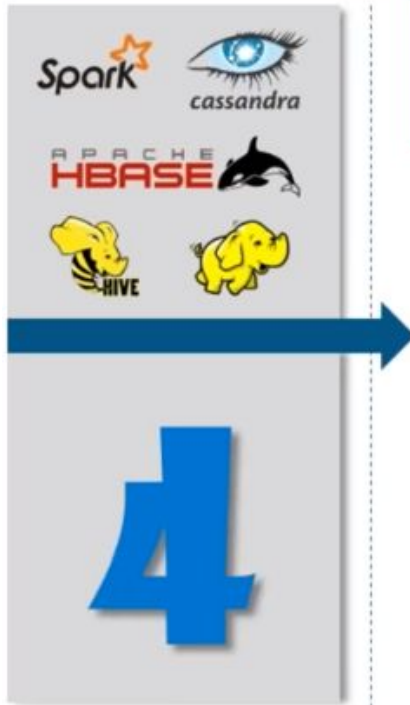
Open Source



# Cloud Computing



# Big Data



Big data is the term for collection of data sets so large and complex that it becomes difficult to process using on-hand database system tools or traditional data processing applications



# AR & VR – Virtual Reality

**VIRTUAL**  
Reality

3

*Virtual reality is an artificial environment that is created with software and presented to the user in such a way that the user suspends belief and accepts it as a real environment*

*The various types of virtual reality differ in their levels of immersion and applicational use cases*

Non Immersive



Jogging with a VR TV

Semi Immersive



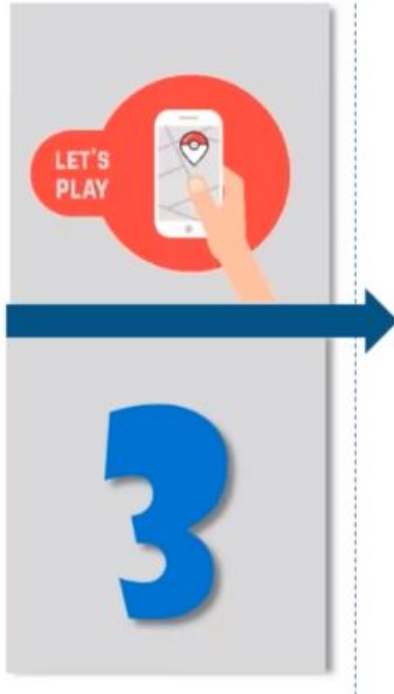
Flight Simulation

Fully Immersive



Immersive VR Gaming

# AR & VR – Augmented Reality



*AR is a technology that superimposes a computer-generated image on a user's view of the real world, thus providing a composite view*



Pokemon Go



AR Integrated Maps

# Blockchain



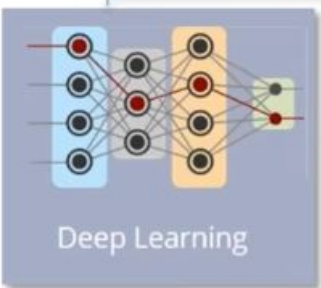
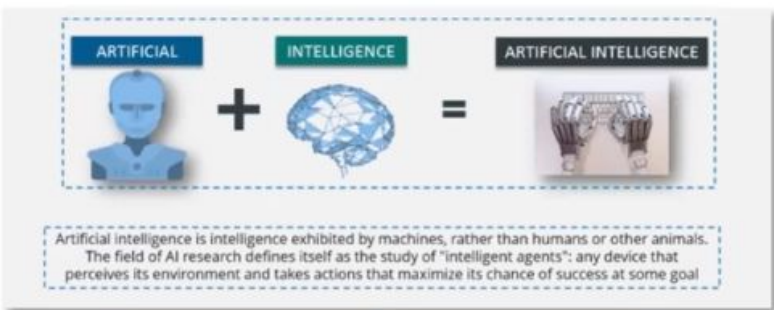
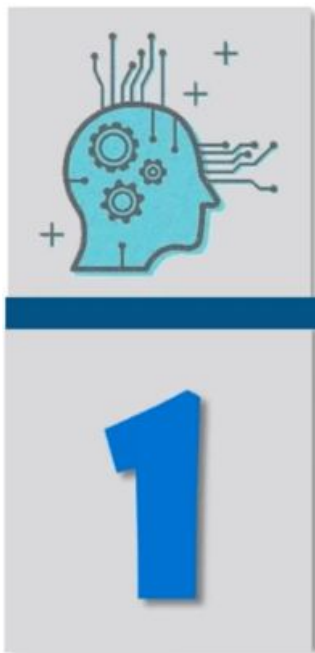
## Features



## Domains



# Artificial Intelligence



Deep Learning



Machine Learning

*Deep Learning is basically advanced Machine Learning that uses Artificial Neural Networks*

- ### Applications
- Education
  - Aviation
  - Retail
  - Finance
  - Healthcare
  - Heavy Industry