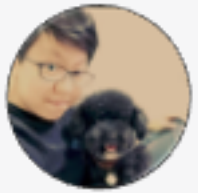
COSCUP 2017
2017.0805



什麼是 kaggle™？

kaggle

- Website : https://www.kaggle.com
- 資料科學和機器學習競賽平台
- 目前已累積超過50萬名、遍布超過194個國家的註冊用戶
- 涵蓋電腦科學、電腦視覺、生物、醫藥

所以 kaggle™?

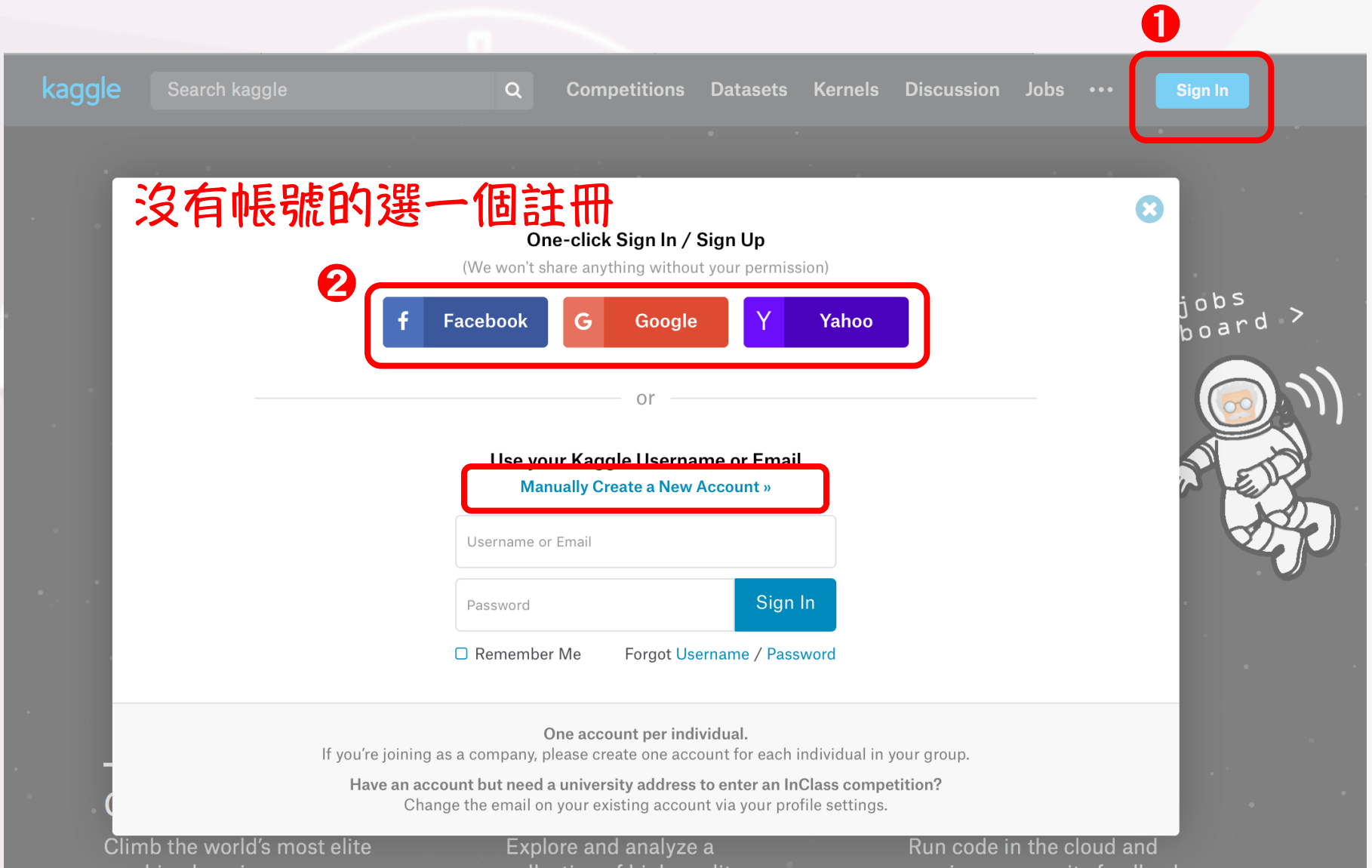
誰在 kaggle 辦過比賽？

如何開始打 kaggle™？

首先你需要...

kaggle

- Account



kaggle

- Account

RLadies Taipei

Taiwan

Joined 7 months ago · last seen in the past day

Competitions Novice

Home | Competitions (2) | Kernels (1) | Discussion (0) | Datasets (0) | ••• | Edit Profile

Competitions Novice	Kernels Novice	Discussion Novice
Unranked	Unranked	Unranked
0 0 0	0 0 0	0 0 0

接著你需要...


Programming
Collective Intelligence
Machine Learning for Hackers
Data Mining

準備好了嗎！

× kaggle™

R-LADIES TAIPEI 2017 KAGGLE 大賽

2017.0722 – 2017.0723

主辦單位

R-Ladies Taipei

贊助單位

國泰慈善基金會 Cathay Charity Foundation

STAR ROCKET

Microsoft

Pinkoi

in Bloom 印花樂

DATA LAB

Girls in Tech TAIWAN

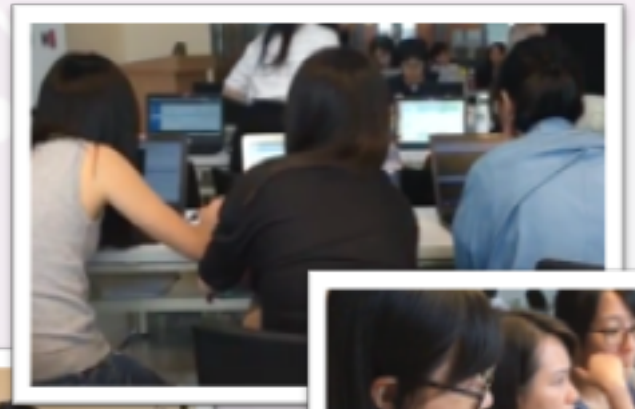
7/22 11:00

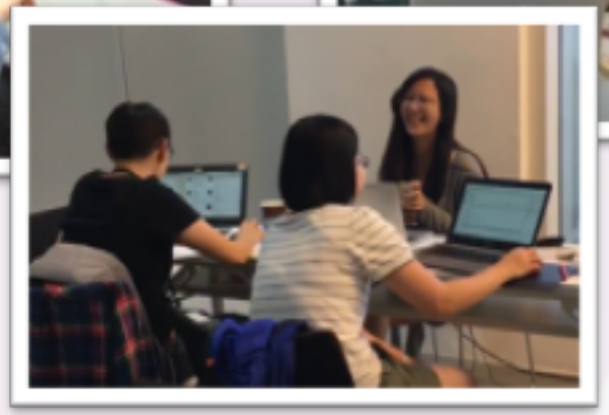
7/22 13:00

7/23 13:00

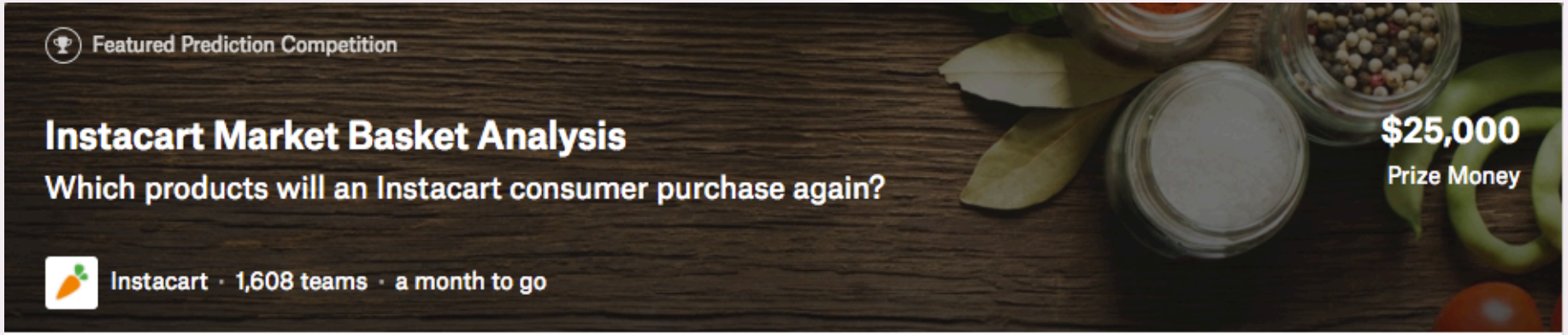
7/23 14:30

Summit





Competition



Overview Data Kernels Discussion Leaderboard Rules

Overview

Description

Evaluation

Prizes

Timeline

Whether you shop from meticulously planned grocery lists or let whimsy guide your grazing, our unique food rituals define who we are. Instacart, a grocery ordering and delivery app, aims to make it easy to fill your refrigerator and pantry with your personal favorites and staples when you need them. After selecting products through the Instacart app, personal shoppers review your order and do the in-store shopping and delivery for you.

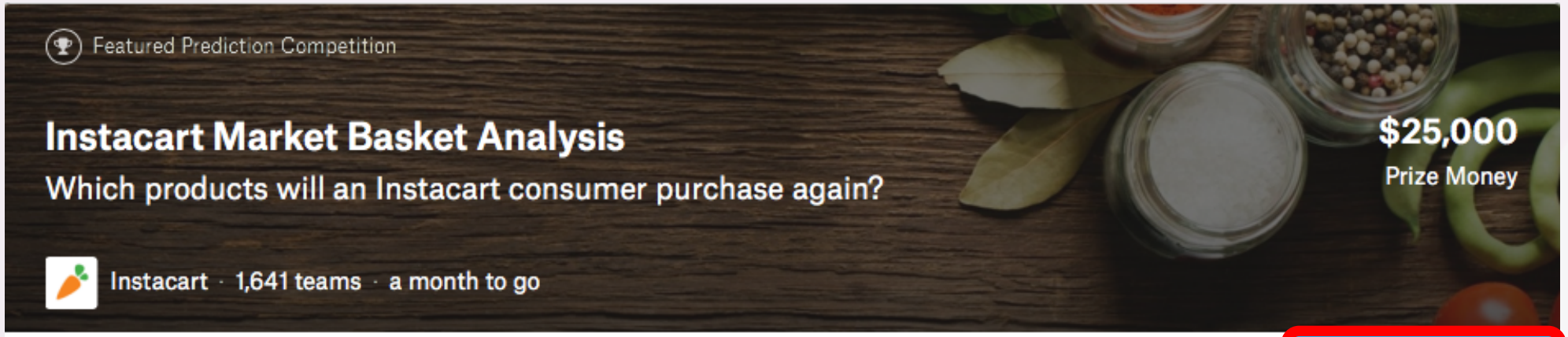
Competition

- Website
  https://www.kaggle.com/c/instacart-market-basket-analysis
- Instacart

  利用募集群眾外包配送的服務，主要為配送的物品以生活必需品與雜貨為主，商品大約為 30 多萬個品項。

詳細介紹：https://www.inside.com.tw/2014/10/09/instacart

Competition



Overview Data Kernels Discussion Leaderboard Rules

Join Competition

Join!!!!!

Overview

Description

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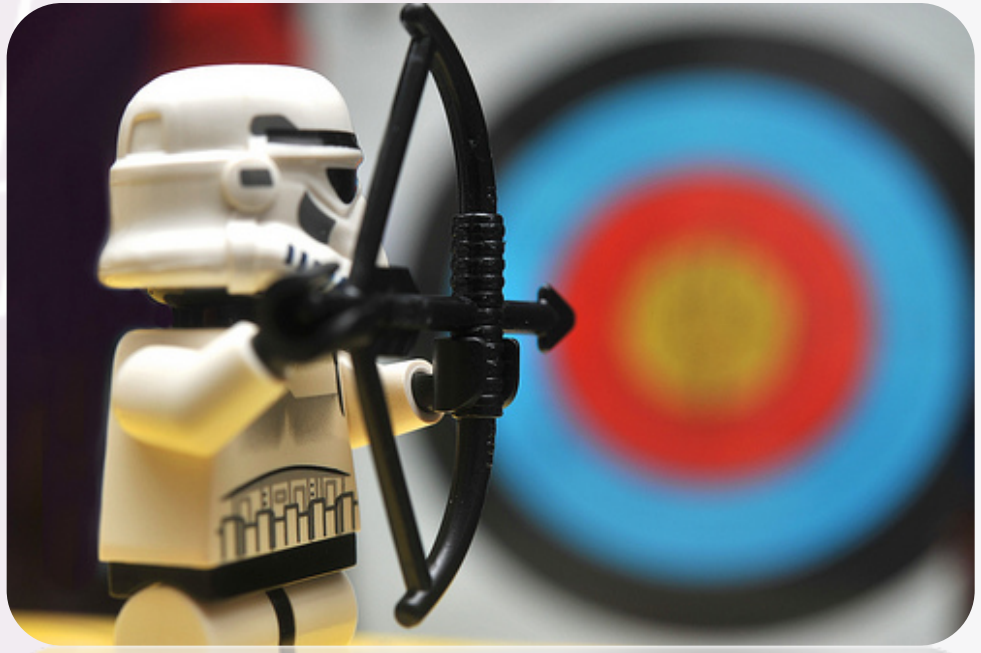
Whether you shop from meticulously planned grocery lists or let whimsy guide your grazing, our unique food rituals define who we are. Instacart, a grocery ordering and delivery app, aims to make it easy to fill your refrigerator and pantry with your personal favorites and staples when you need them. After selecting products through the Instacart app, personal shoppers review your order and do the in-store shopping and delivery for you.

Instacart's data science team plays a big part in providing this delightful shopping experience. Currently

Competition

- Target

  預測顧客下一筆訂單中會有哪些商品

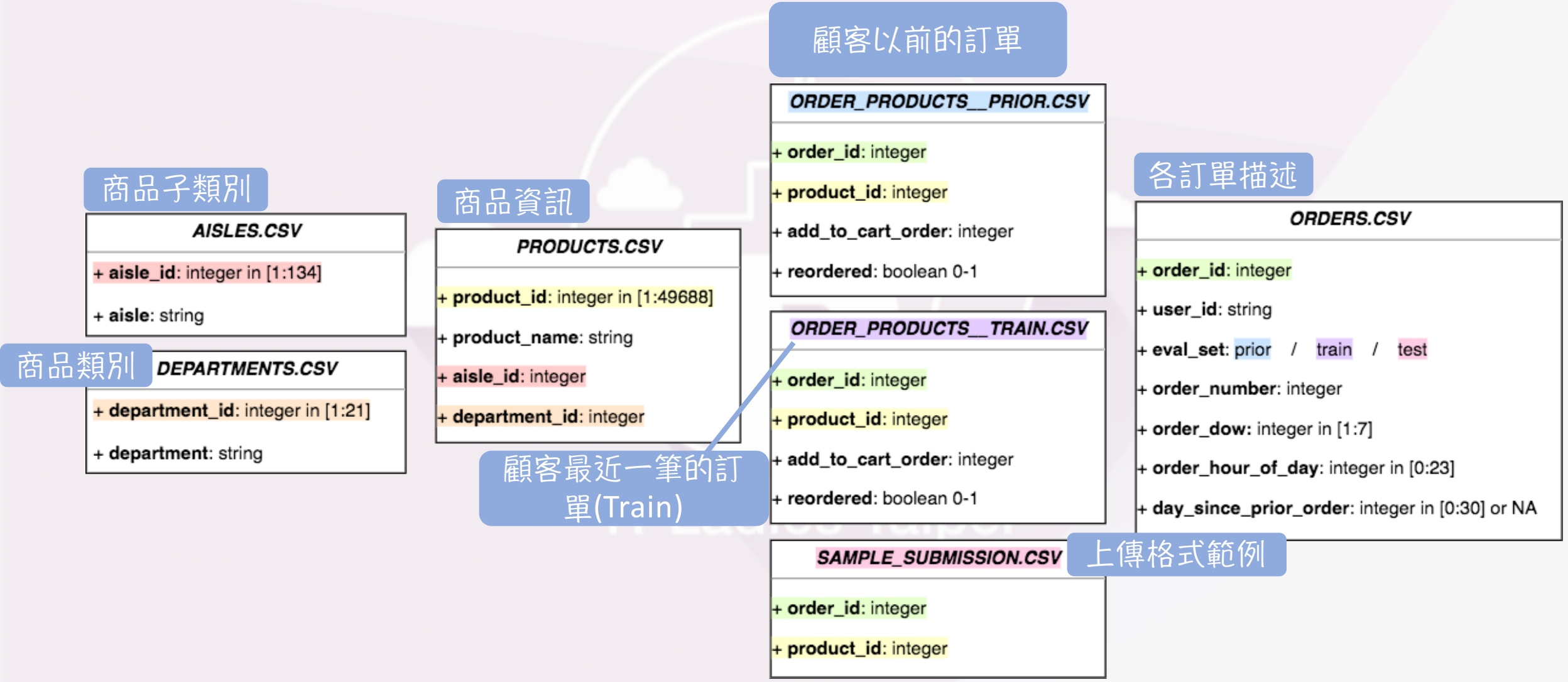


讓我們介紹一下資料集

About the Data -- 所有檔案

Data : 7 Files	
aisles.csv	商品子類別
departments.csv	商品類別
products.csv	Instacart 販售的商品項目
orders.csv	各訂單描述
order_products__prior.csv	顧客最近一筆訂單的前一筆訂單
order_products__train.csv	顧客最近一筆訂單(Train)
sample_submission.csv	上傳格式範例

About the Data -- 檔案關聯及資料屬性



Ref：https://www.kaggle.com/c/instacart-market-basket-analysis/discussion/33128#183176

About the Data -- 各資料集說明

department.csv (共分成21個商品類別)	
department_id	商品類別編號
department	商品類別名稱

About the Data -- 各資料集說明

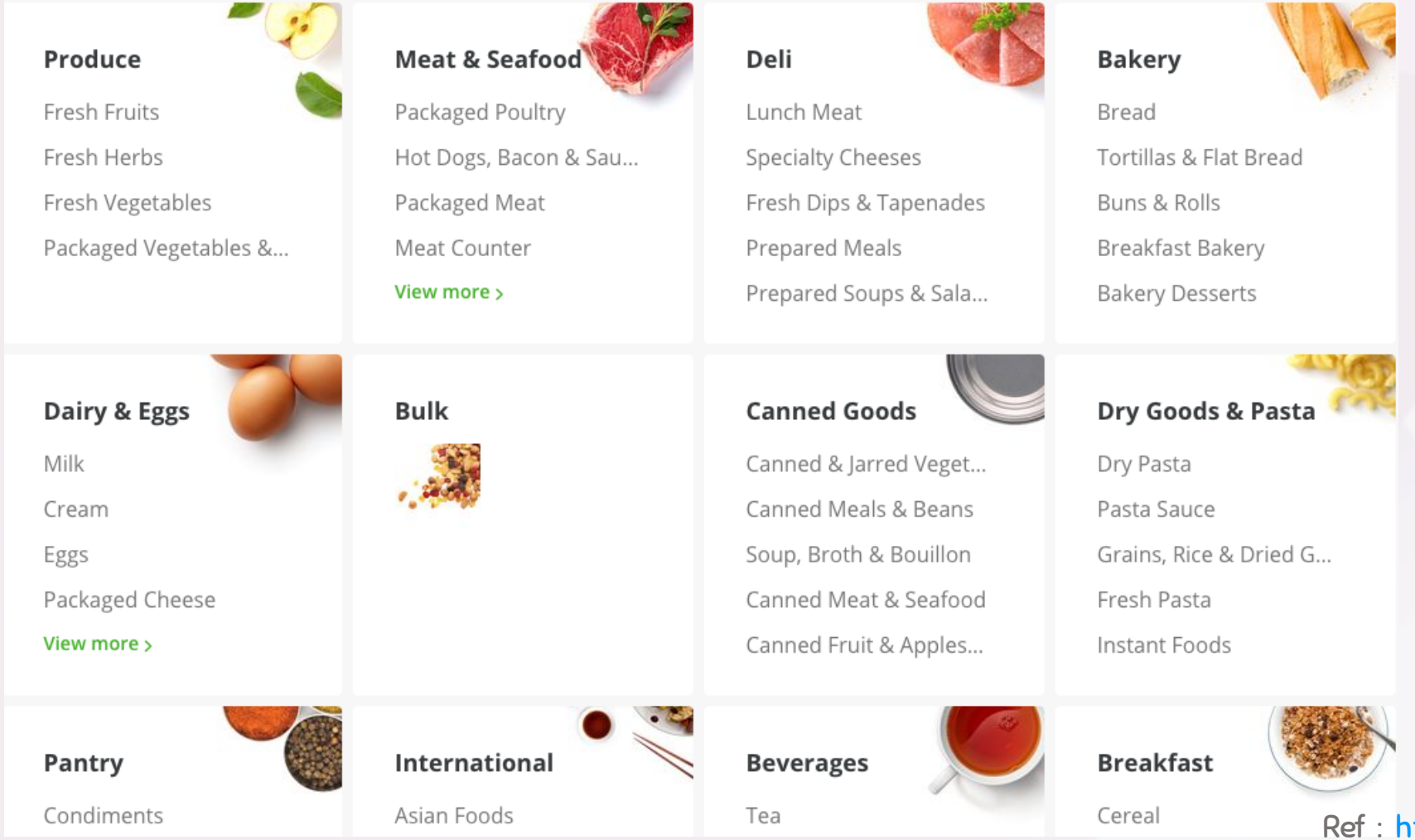
aisles.csv (共有134個商品子類別)	
aisle_id	商品子類別編號
aisle	商品子類別名稱

Note.
商品子類別分類更細緻，有助於理解商品間的關係

Ref : https://www.kaggle.com/c/instacart-market-basket-analysis/discussion/34302

About the Data -- 各資料集說明

Departments



Ref : https://www.instacart.com/store/browse

About the Data -- 各資料集說明

products.csv (Instacart 共販售 50K 個商品)	
product_id	商品編號
product_name	商品名稱
aisle_id	商品子類別編號
department_id	商品類別編號

About the Data -- 各資料集說明

order_products_prior.csv	
order_id	訂單編號
product_id	商品編號
add_to_cart_order	商品放入購物車的順序
reordered	是否曾經購買過 (1 :表示有過購買記錄, 0 :表示第一次購買/沒有購買記錄)

About the Data -- 各資料集說明

order_products_train.csv	
order_id	訂單編號
product_id	商品編號
add_to_cart_order	商品放入購物車的順序
reordered	是否曾經購買過 (1 :表示有過購買記錄, 0 :表示第一次購買/沒有購買記錄)

About the Data -- 各資料集說明

order.csv (記錄各個顧客的所有訂單含 3.4M 筆訂單, 206K 個顧客)	
order_id	訂單編號
user_id	顧客編號
eval_set	屬於哪個資料集(prior / train / test)
order_number	該顧客訂單成立的順序
order_dow	訂單時間[星期] (0 = Saturday, 1 = Sunday,…)
order_hour_of_day	訂單時間[小時] (0 ~ 24)
day_since_prior_order	距離上一筆訂單的天數 (第一次購買沒有數據：NAs 大於30天以30記)

3.2M筆 131K筆 75K筆

About the Data --上傳格式範例說明

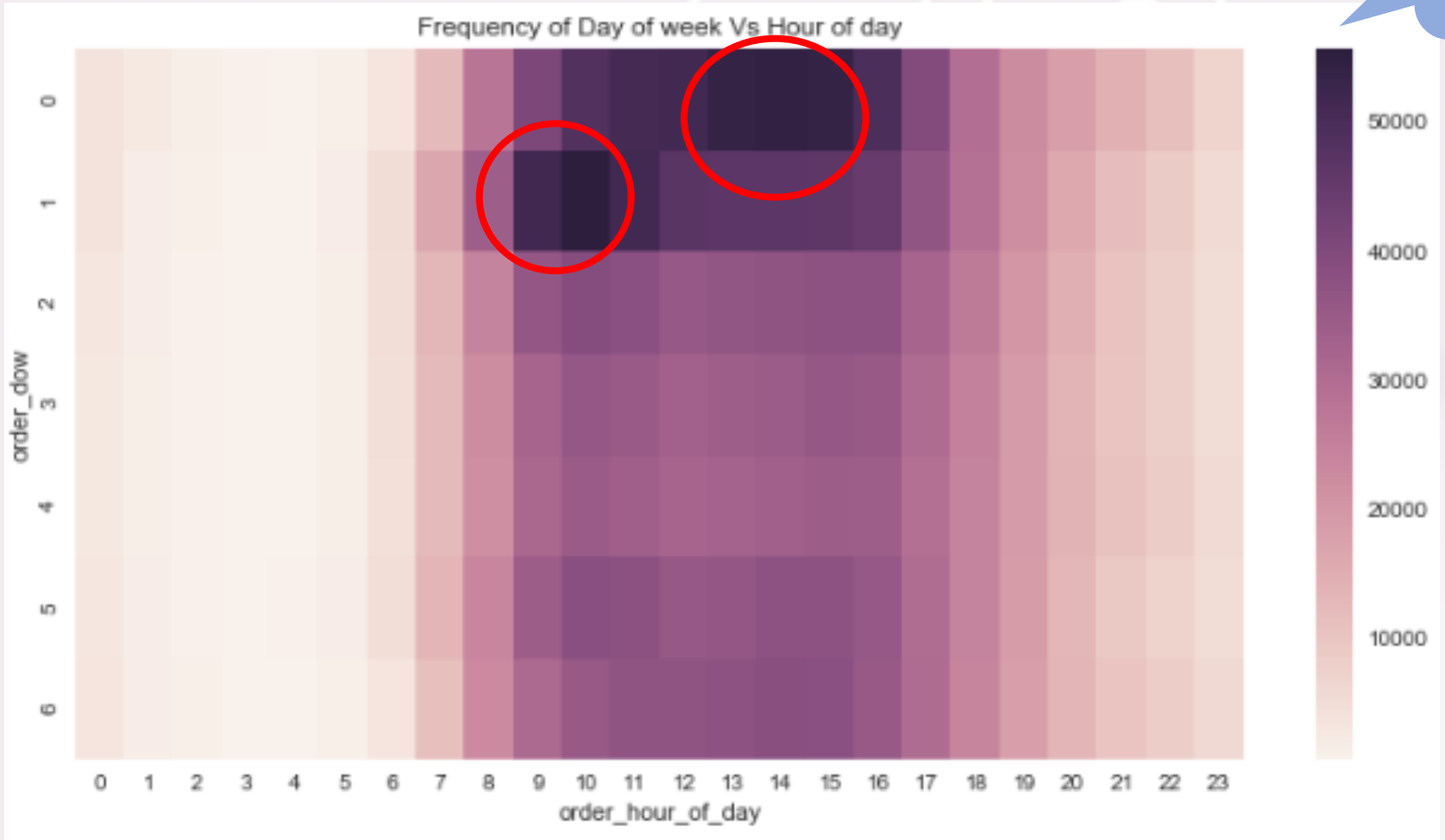
sample_submission.csv	
order_id	訂單編號
product_id	商品編號

order_id	products
2774568	17668 21903 39190 47766 18599 43961 23650 24810
1528013	21903 38293
1376945	33572 28465 27959 44632 24799 34658 14947 30563 8309 13176
1356845	11520 14992 7076 28134 10863 13176
2161313	11266 196 10441 12427 37710 48142 14715 27839
1416320	5134 21903 21137 24852 17948 41950 24561

我們發現了…

Exploratory Data Analysis

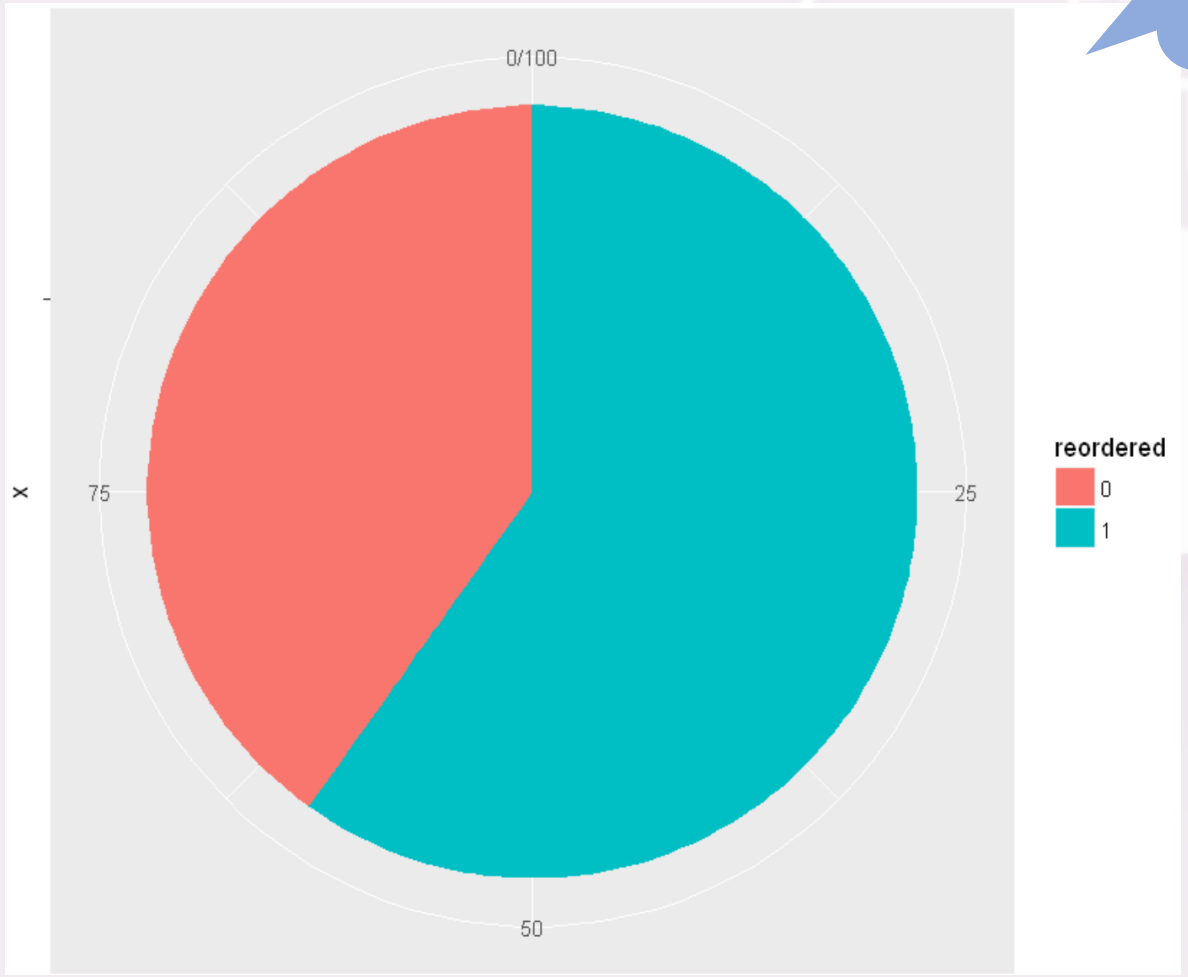
顧客大約都在何時訂購？



週六中午過後及週日早上為最密集的購買時間

Exploratory Data Analysis

商品回購率？

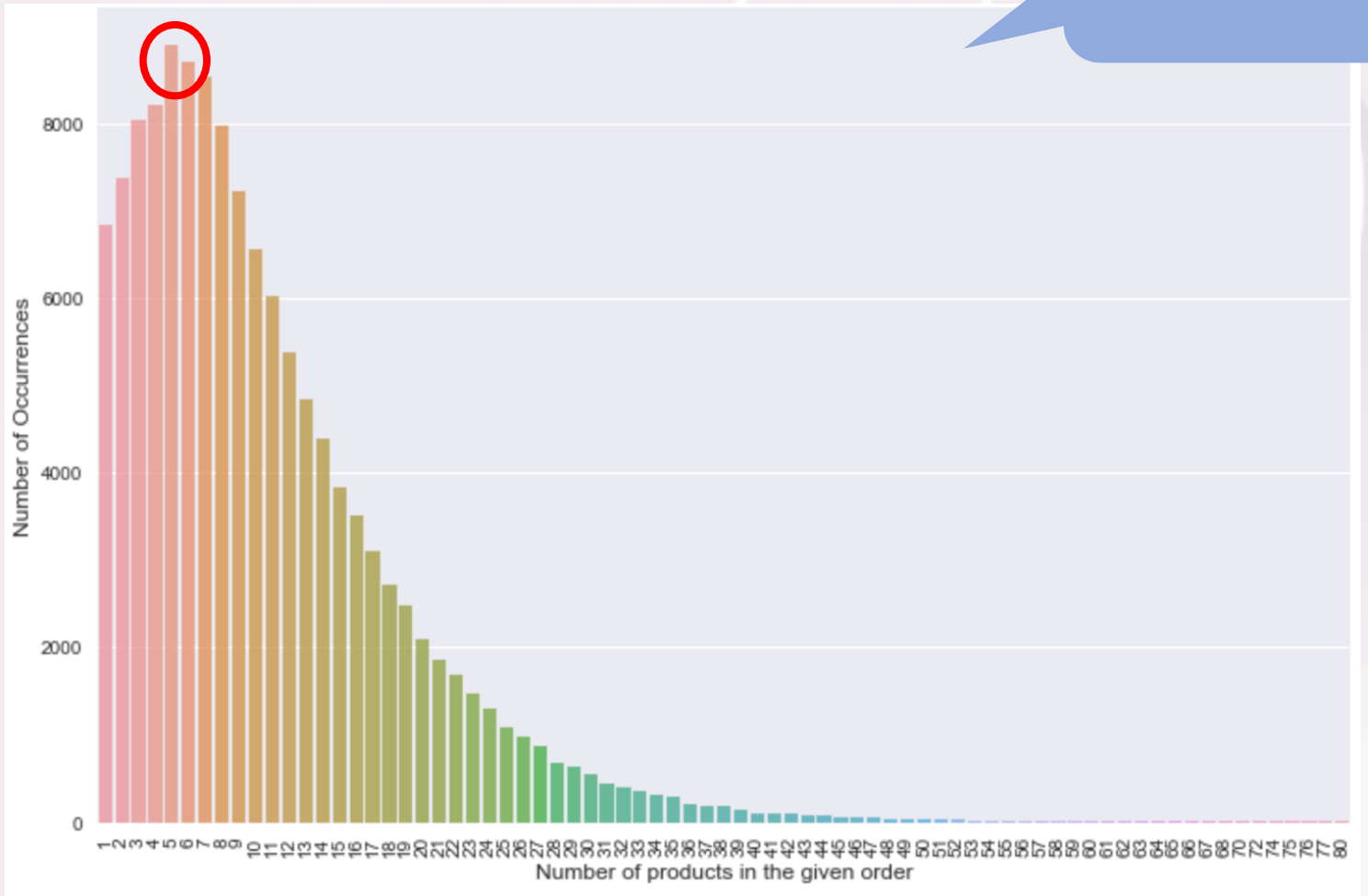


回購率大約為 59%

Exploratory Data Analysis

一筆訂單中有多少件商品? (train)

大部分訂單一次購買 **5** 件商品



想看看更詳細的EDA整理結果？

寫 R 的朋友走這邊：http://goo.gl/fThkMb

寫 Python 的朋友來這裡：http://goo.gl/H3ARDa
http://goo.gl/ZEVjYK

Let's Join Kaggle !!!