



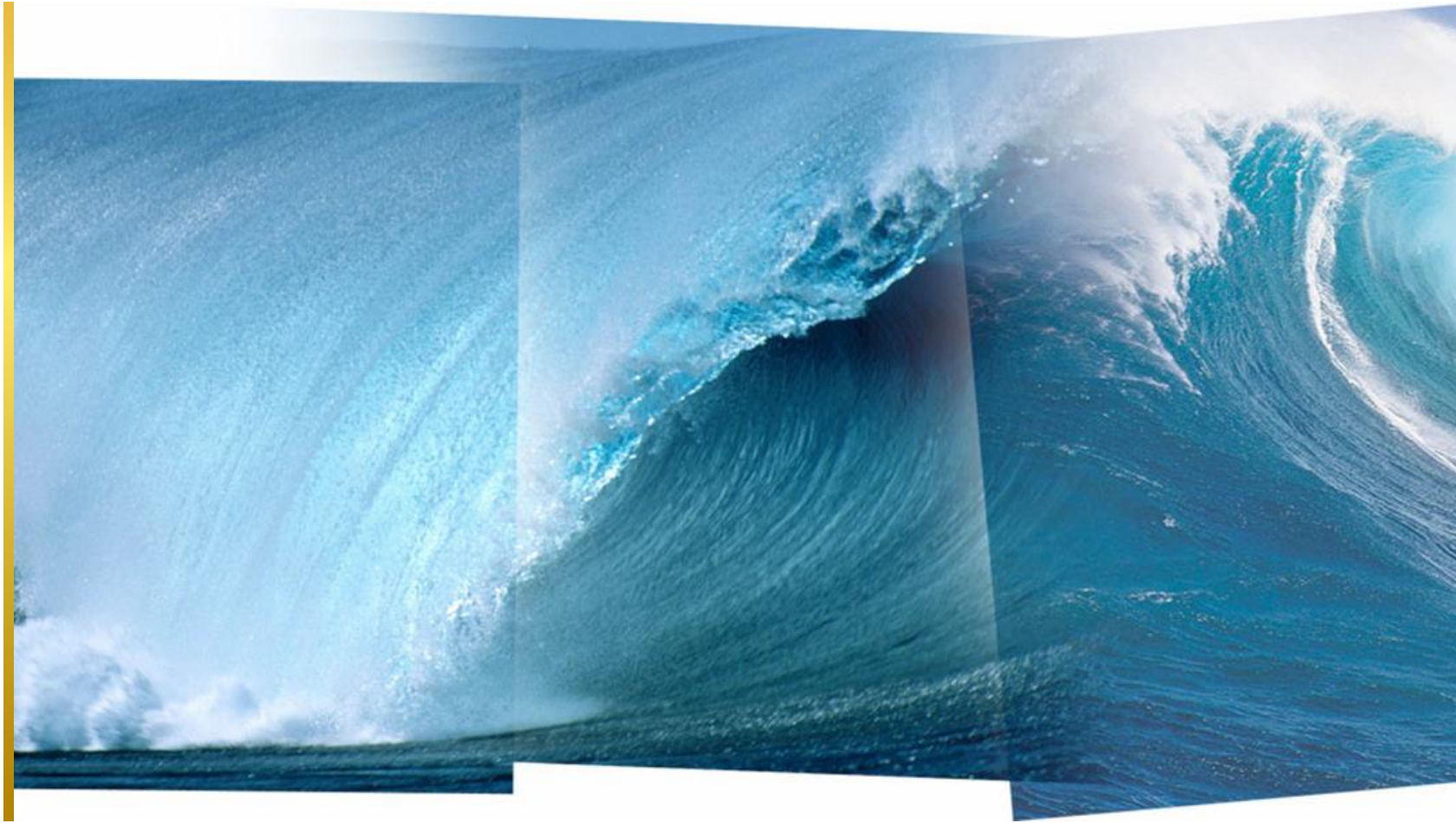
Hackathon 2020

Surfing the Digital Wave

Improving people's lives
and wellbeing through
advanced analytics

NUS Data Analytics
Consulting Centre

August 2020



Hackathon 2020

Objective of the Project

The purpose of this hackathon is to give some real-world data, some broad questions and let you unleash your creativity and insight to produce an insightful analysis.

Based on consumer's spending pattern and keeping in mind, consumer's budget and calories constraint, recommend optimal food basket to buy.

In this hackathon, you will work with a challenging user purchase dataset consisting of consumer's spending habits on food categories

Potential data science techniques that may be applied to solve the objective of the project

Market basket analysis, segmentation, forecasting, collaborative filtering etc.

Hackathon 2020

Evaluation would be based on the following criterias

- 1) Correctness
- 2) Completeness
- 3) Novelty and creativity
- 4) Technical sophistication
- 5) Commercial acumen and insights
- 6) Clarity and engagement

Prizes

1st prize - \$150 voucher each member
2nd prize - \$100 voucher each member
3rd prize - \$50 voucher each member

Hackathon 2020

Relevant Data

- **Main Dataset**

Data Variables: Panelist ID, Date of Transaction, Category of Product purchased, Product Pack Size, Volume of Product, Spend on Product

Data size: 1,318,024 transactions

Take note: Volume of Product varies across different categories.

For categories like Rice and Sugar, volume is in KG.

For categories like CSD and Ice Cream, volume is in Litres.

For Instant Noodles and Eggs, volume is in individual units (make your own assumptions).

- **Categories Information**

Data Variables: Category of Product purchased, Calories of Category/100g, Average Price per Volume (KG/L)

- **Panelists Demographics**

Data Variables: Panelist ID, BMI, Income Bracket, Ethnicity, Life-stage, Strata, Number of members in the Household, Location