### **Mentor Meeting Minutes**

**Date:** 17th Jan 2018

**Venue:** SIS Meeting Room 4.6

**Attendees:** Prof Kam Tin Seong, Au Zhe Wei Jonathan,

Ng Bing Yao Manfred, Yak Sze Hao

**Agenda:** Introduction

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| S/N | Notes/Task | Assigned To | Follow-Up Action |
| 1 | Sze Hao briefed the group on the company (Chope) we are working on. Gave a rough summary to the industry. As well as the various data we will be getting from chope.   1. Reservation data 2. Email promotional data | NA | NA |
| 2 | Manfred and Jonathan explained to Prof Kam on the potential data analytics methods and tools we will be using. Plan to use JMP, SAS and SPSS as we are very familiar with those softwares. | NA | NA |
| 3 | Jonathan, Manfred and Sze hao explained to Prof Kam on the recommendations we got from Chope.   1. Analysing the timing of emails being sent out and to different demographics, does timing matter? 2. How to be optimized and personalised for different people.. Also when is the best time to send emails | NA | NA |
| 4 | Prof Kam then advised us to know about the business.  Business discovery:   * How does Chope make its revenue? * What is Chope’s selling point vs competitors? * Customers that make reservations but cancel? * Text data needs sufficient number of records (depends on customer base) | Jonathan,  Manfred,  Sze Hao | To ask Chope during our next meeting  [Completed: Second meeting with Chope] |

Prepared by: Au Zhe Wei Jonathan

Checked by: Yak Sze Hao

### **Mentor Meeting Minutes**

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**Date:** 25th Jan 2018

**Venue:** SIS Meeting Room 4.5

**Attendees:** Prof Kam Tin Seong, Au Zhe Wei Jonathan,

Ng Bing Yao Manfred, Yak Sze Hao

**Agenda:** Data Collected From Chope

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| S/N | Notes/Task | Assigned To | Follow-Up Action |
| 1 | Sze Hao passed Prof Kam our signed NDA and proceeded for him to sign it before we pass a copy to Chope | NA | Pass NDA to Chope  [Completed: Second meeting with Chope] |
| 2 | The team game some information with Prof Kam which he asked from our previous meeting.  **Revenue streams**  1. Cover charge (Main revenue stream)  - $1 per person  - $2 completed reservation  2. Subscription  - Ipad system – fixed cost  3. Vouchers  - Sell restaurant vouchers to users – eg 10% off  4. Marketing  - Feature restaurants in EDMs for a fee | NA | NA |
| 3 | Proceeded to show Prof Kam the data we got from Chope. Out of the 4 data sets we have, we had issues opening our set of data (interpret).  Prof Kam gave us advice on how to tackle this particular dataset. | NA | NA |
| 4 | Team will try using Python instead of JMP to further analyse the data due to its large file size and continue crashing of software. | ALL | NA |

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Prepared by: Au Zhe Wei Jonathan

Checked by: Yak Sze Hao

### **Mentor Meeting Minutes**

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**Date:** 8th Feb 2018

**Venue:** SIS Meeting Room 4.5

**Attendees:** Prof Kam Tin Seong, Au Zhe Wei Jonathan,

Ng Bing Yao Manfred, Yak Sze Hao

**Agenda:** Data Cleaning Issues

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| S/N | Notes/Task | Assigned To | Follow-Up Action |
| 1 | Manfred explained to Prof Kam that as the data file is in CSV format, the delimiter truncates the data. In order to not lose any data, he set the delimiter to a specific character.  Upon showing the analysis to Prof Kam, Prof Kam suggested to find a relationship between the data. Binning the data (e.g less than 2 person or greater than 2 persons), and cross reference the reservations with the timing of reservation. He recommended using Chisq test for contingency. | ALL | Ask chope from the restaurant ID so we can match it with the data we have  To gain better insights to see the type of merchants to develop strategies |
| 2 | Sze Hao and Jonathan showed Prof Kam the problems faced with JMP due to the number of columns in the interaction data set, and he suggested using pandas and R to clean the data.  Prof Kam suggested to see the behaviour of different people, how many times they click, also to use the start time of the click and the last time of the click.  To find the useful indicators we need then we tidy up the data and also to check when they receive the email, how long they take to open it. | ALL |  |
| 3 | Look into those who open and click, and cross reference with bookings, to see how much of the bookings is in response to the campaign. | ALL |  |

Prepared by: Au Zhe Wei Jonathan

Checked by: Yak Sze Hao

### **Mentor Meeting Minutes**

**Date:** 22nd Feb 2018

**Venue:** SIS Meeting Room 4.1

**Attendees:** Prof Kam Tin Seong, Au Zhe Wei Jonathan,

Ng Bing Yao Manfred, Yak Sze Hao

**Agenda:** Exploratory Data Analysis

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| S/N | Notes/Task | Assigned To | Follow-Up Action |
| 1 | Regarding reservations data, Manfred showed Prof Kam the initial analysis. Prof Kam suggested to take note the dates of the data (e.g when the data is from and until when) and list down in the slides.  For outliers, Prof Kam suggested to show the data removed in the form of a screenshot, in addition to the current screenshot. And to state how many rows are the ones with errors and if it is significant. | ALL | To update before presentation in week 8 |
| 2 | Prof Kam suggested that for all screenshots shown, to zoom in on one or two lines to make it clearer instead of a chunk of data if it is all the same.  Provide a screenshot how the final data looks like after data cleaning (e.g CSV when opened in JMP) | ALL | To update before presentation in week 8 |
| 3 | 1. For the errors in the data, to show the errors (less than 1 and more than 25), and possible errors for it to happen. 2. The binning portion chart to show the frequency and the absolute in the chart. 3. Regarding business recommendations, it is not worth doing any business recommendations yet, understand the behaviour first before doing any recommendations. Recommendations at this stage can be for example “in order to understand for business development, what are the subsequent steps to take, doing what kind of analysis”. 4. For advance booking, focus on the majority of the data, look into zooming in to 1 hour, 6 hours, 12 hours instead of 1 day only. Show the big picture then zoom in. 5. For the regression look between each of the 4 categories to see the distribution, then compare them using ANOVA to see if the means are not the same then do a pair comparison. 1st prove the means are not the same, then see which one is actually higher. Present them as a box plot for the exploratory phase. 6. When you do a mean test, if data is highly skewed, need to do non-parametric test instead of parametric. 7. Mosaic plot the y-axis ABC which category, then the x axis, 0-3, 4-6. | ALL | To update before presentation in week 8 |
| 4 | For interaction data portion.   1. Rearrange the slide which shows 69million data points to have the flow. 2. Get the percentage for everything. Get the distribution statistics 3. Clean the data from the test campaigns, and show the data which are cleaned. 4. Business recommendation can be to set something in place to prevent the errors from happening. 5. For the open and click through rates by individual. To exclude those which are 100% to as it is not meaningful to the analysis, using IQR to exclude. To show before and after. 6. Compare when emails are sent vs when emails are opened (maybe emails should be sent earlier in the day?) | ALL | To update before presentation in week 8 |

### Prepared by: Au Zhe Wei Jonathan

Checked by: Yak Sze Hao