

## Meta-Data Analysis

### UserClusteringSheet\_Final\_Group01

*Note: Variable Distributions have not been included due to confidentiality agreement*

S. No	Variable Name	Data Type	Modelling Type	Description
1.	User ID	Numeric	Nominal	Unique User ID
2.	N Rows	Numeric	Continuous	Number of bookings made by the User
3.	Number of Bookings	Numeric	Continuous	Number of bookings made by the User
4.	Last Date 2017 (dd/mm/yy)	Numeric	Continuous	31 <sup>st</sup> December 2017
5.	User's Last Booking Date (dd/mm/yyyy)	Numeric	Continuous	The date on which the user made his last booking in 2017
6.	REGENCY	Numeric	Continuous	How recently has the user booked with eatigo. The difference between 31 <sup>st</sup> December and User's Last Booking Date  $\frac{\left( \begin{array}{l} \text{Last Date 2017 (dd/mm/yy)} \\ - \text{User's Last Booking Date (dd/mm/yyyy)} \end{array} \right)}{(60 \cdot 60 \cdot 24)}$
7.	Date User Added (mm/dd/yy)	Numeric	Continuous	The date on which the User joined the eatigo platform
8.	Start of 2017 (mm/dd/yy)	Numeric	Continuous	1 <sup>st</sup> January 2017
9.	End of 2017 (mm/dd/yy)	Numeric	Continuous	31 <sup>st</sup> December 2017
10	User days in 2017	Numeric	Continuous	Number of Days the User was on the eatigo platform in the year 2017. Taken as 365 for users who joined before 2017.

				$\left( \begin{array}{l} \text{Date User Added (mm/dd/yy)} - \text{Start of 2017 (mm/dd/yy)} = 365 \\ \text{If} \\ \text{else} \end{array} \right) = \frac{(\text{End of 2017 (mm/dd/yy)} - \text{Date User Added (mm/dd/yy)})}{(60 \cdot 60 \cdot 24)} + 1$
11	FREQUENCY	Numeric	Continuous	<p>How often does a user book with Eatigo. Average number of days between bookings</p> $\frac{\text{User days in 2017}}{\text{Number of Bookings}}$
12	Sum of Diners for Attended	Numeric	Continuous	The total number of Diners across all attended booking for the User. Recorded as missing for users who did not attend any bookings
13	MONETARY	Numeric	Continuous	The total number of Diners across all attended booking for the User. Recorded as 0 for users who did not attend any bookings
14	Restaurant Variety	Numeric	Continuous	Number of Unique Restaurants Attended by the User
15	Proportion Repeat Restaurants	Numeric	Continuous	<p>The proportions of bookings for which the user repeated the restaurant choice</p> $\frac{(\text{Number of Bookings} - \text{Restaurant Variety})}{\text{Number of Bookings}}$
16	Cuisine Variety	Numeric	Continuous	Number of Unique Cuisines Tried by the User
17	Proportion Repeat Cuisine	Numeric	Continuous	<p>The proportions of bookings for which the user repeated the cuisine choice</p> $\frac{(\text{Number of Bookings} - \text{Cuisine Variety})}{\text{Number of Bookings}}$
18	N(Weekday)	Numeric	Continuous	Number of bookings made for the weekday (Monday to Friday)

19	N(Weekend)	Numeric	Continuous	Number of Bookings made for the Weekend (Saturday and Sunday)
20	Proportion Weekday	Numeric	Continuous	Proportion of bookings made for the weekday (Monday to Friday) $\frac{N(\text{Weekday})}{\text{Number of Bookings}}$
21	Proportion Weekend	Numeric	Continuous	Proportion of Bookings made for the Weekend (Saturday and Sunday) $\frac{N(\text{Weekend})}{\text{Number of Bookings}}$
22	N(10 to 15)	Numeric	Continuous	Number of Times 10-15 % range discount was availed
23	N(20 to 25)	Numeric	Continuous	Number of Times 20-25 % range discount was availed
24	N(30 to 35)	Numeric	Continuous	Number of Times 30-35 % range discount was availed
25	N(40 to 45)	Numeric	Continuous	Number of Times 40-45 % range discount was availed
26	N(50)	Numeric	Continuous	Number of Times 50 % discount was availed
27	Proportion of 10-15 discount	Numeric	Continuous	Proportion of Times 10-15 % range discount was availed $\frac{N(10 \text{ to } 15)}{\text{Number of Bookings}}$
28	Proportion of 20-25 discount	Numeric	Continuous	Proportion of Times 20-25 % range discount was availed $\frac{N(20 \text{ to } 25)}{\text{Number of Bookings}}$
29	Proportion of 30-35 discount	Numeric	Continuous	Proportion of Times 30-35 % range discount was availed

				$\frac{N(30 \text{ to } 35)}{\text{Number of Bookings}}$
30	Proportion of 40-45 discount	Numeric	Continuous	Proportion of Times 40-45 % range discount was availed $\frac{N(40-45)}{\text{Number of Bookings}}$
31	Proportion of 50 discount	Numeric	Continuous	Proportion of Times 50 % discount was availed $\frac{N(50)}{\text{Number of Bookings}}$
32	N(breakfast)	Numeric	Continuous	Number of Breakfast Bookings Made
33	N(lunch)	Numeric	Continuous	Number of Lunch Bookings Made
34	N(dinner)	Numeric	Continuous	Number of Dinner Bookings Made
35	Proportion Breakfast	Numeric	Continuous	Proportion of Breakfast Bookings $\frac{N(\text{breakfast})}{\text{Number of Bookings}}$
36	Proportion Lunch	Numeric	Continuous	Proportion of Lunch Bookings $\frac{N(\text{lunch})}{\text{Number of Bookings}}$
37	Proportion Day Bookings	Numeric	Continuous	Proportion of Bookings made for the day <b>Proportion Breakfast</b> <b>+ Proportion Lunch</b>
38	Proportion Night Bookings	Numeric	Continuous	Proportion of Bookings made for the Night $\frac{N(\text{dinner})}{\text{Number of Bookings}}$

39	Same Day	Numeric	Continuous	Number of Bookings Made on the Same Day as the Booking date
40	Previous Day	Numeric	Continuous	Number of Bookings Made a day before the booking date
41	Within One Week	Numeric	Continuous	Number of Bookings Made within a 1-week time frame (7 days) before the booking date
42	Within Two Weeks	Numeric	Continuous	Number of bookings Made within a 2-week time frame (14 days) before the bookings date
43	Early bookings	Numeric	Continuous	Number of bookings made more than 15 days in advance of the booking date
44	Proportion Same Day	Numeric	Continuous	Proportion of Bookings Made on the Same Day as the Booking date $\frac{\text{Same Day}}{\text{Number of Bookings}}$
45	Proportion Previous Day	Numeric	Continuous	Proportion of Bookings Made a day before the booking date $\frac{\text{Previous Day}}{\text{Number of Bookings}}$
46	Proportion Within One Week	Numeric	Continuous	Proportion of Bookings Made within a 1 week time frame (7 days) before the booking day $\frac{\text{Within One Week}}{\text{Number of Bookings}}$
47	Proportion Within Two Weeks	Numeric	Continuous	Proportion of bookings Made within a 2 week time frame (14 days) before the bookings date $\frac{\text{Within Two Weeks}}{\text{Number of Bookings}}$
48	Proportion Early Bookings	Numeric	Continuous	Proportion of bookings made more than 15 days in advance of the booking date $\frac{\text{Early bookings}}{\text{Number of Bookings}}$

49	Proportion Pre-planned	Numeric	Continuous	Proportion of bookings Made more than a day in advance of the booking date  $\begin{aligned} & \text{Proportion One Week} \\ & + \text{Proportion Two Weeks} \\ & + \text{Proportion Early bookings} \end{aligned}$
50	N(Tier 1)	Numeric	Continuous	Number of Bookings made for tier 1 Restaurants
51	N(Tier 2)	Numeric	Continuous	Number of Bookings made for tier 2 Restaurants
52	N(Tier 3)	Numeric	Continuous	Number of Bookings made for tier 3 Restaurants
53	N(Tier 4)	Numeric	Continuous	Number of Bookings made for tier 4 Restaurants
54	N(Tier 5)	Numeric	Continuous	Number of Bookings made for tier 5 Restaurants
55	Proportion Low tier	Numeric	Continuous	Proportion of Bookings made for tier 1 or tier 2 Restaurants  $\frac{(N(\text{Tier 1}) + N(\text{Tier 2}))}{\text{Number of Bookings}}$
56	Proportion Mid tier	Numeric	Continuous	Proportion of Bookings made for tier 3 Restaurants  $\frac{N(\text{Tier 3})}{\text{Number of Bookings}}$
57	Proportion High tier	Numeric	Continuous	Proportion of Bookings made for tier 4 or tier 5 Restaurants  $\frac{(N(\text{Tier 4}) + N(\text{Tier 5}))}{\text{Number of Bookings}}$
58	Cluster 8	Numeric	Nominal	The cluster assigned to the User