**Team 2**

**Data Analytics Final Project Proposal**

**TEMPLATE**

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| --- | --- |
| Proposed by: | Team 2  Member 1 Member 2  Member 3  Member 4 (Team Leader)  (Names have been censored so It can be uploaded online) |
| Timeframe: | Completion by 21/06/2023 00:00  Presentation on 22/06/2023 |

**Overview**

This project focuses on analysing the Olist Dataset, available on Kaggle <https://www.kaggle.com/datasets/olistbr/brazilian-ecommerce>. This dataset will be imported into Power BI and data transformation/modelling will be performed to aid in analysis of this data. Below are the summaries (divided by report) and insights that will be created which are important for business decision making.

*Customer Statistics (can be filtered by state)*

* *Registered customer numbers*
* *Orders completed (orders that have been delivered to customers home)*
* *Items purchased*
* *Reviews published*
* *Minimum/ Average/ Maximum order price*

*Review Statistics*

* *Reviews by review score (1-5)*
* *Total amount of reviews*
* *Amount of reviews per state*

*In Depth Review Analysis*

* *(Feedback Sentiment Analysis) Evaluate the polarity of the reviews as customer feedback positive, negative or neutral*
* *(Clustering) Some customers did not write a review. But for those that did, why are they happy or mad?*

*Product Statistics*

* *Products sold (by category, need to find a way to have category names in English)*
* *Filters (by seller and category)*
* *Min/ Avg/Max Item price*
* *Min/Avg/Max freight value (Think its how much to ship something)*

*Sales statistics*

* *(Sales Prediction) With purchase date information you will be able to predict future sales.*
* *(Delivery Performance) You will also be able to work through delivery performance and find ways to optimise delivery times.*

*Payment Statistics*

* *Orders (by most popular payment method)*
* *Orders (by how many instalments people wish to pay in)*
* *Sum of payment received*

*Seller map?*

* *Sellers (by city, using the geolocation table)*
* *Display amount of sellers*
* *Create dashboard*
* *Create powerpoint (integrate Power BI)*

## **Plan of action**

*[List the concrete steps your group will take to complete this work. Include descriptions of how the work will be divided between team members].*

1. *Import, transform and model data as required*

* *This is explained in the points below as was required by each step*

1. *Create customer statistics report*

* *Create bar chart with state and count of customers*
* *Create cards with min/max/avg order price*
* *Create cards with customers, reviews published, orders completed and count of items purchased*

1. *Start creation of Powerpoint*
2. *Create review statistics report*

* *Duplicate the customer state column and find and replace the state abbreviations to make them their full names*
* *Create a table with customer state names*
* *Create a card with count of review id*
* *Create stacked bar chart with review score, count of review id and legend of review score*

1. *In depth review analysis*

* *Created python code to translate reviews using google cloud translate v2 library*
* *Created python code to create reviews polarity using textblob*
* *Add a conditional column to make sentiments from polarity(and add to review statistics report)*

1. *Create product stats analysis report*

* *Create bar chart with category name in English and count of products sold*
* *Create category, state and seller slicers*
* *Created a measure that divided price by order item id, to get the price of individual items*
* *Created cards for min/max/avg of individual price*
* *Created cards for min/max/avg of freight value*

*Create sales stats analysis report*

* *Create line graph with sum of payment value and order purchase time*
* *Add forecasting*
* *Create payment type, year and payment instalment filterPayment stats analysis report (Adrian)*
* *Create card with sum of payment value received*
* *Create a bar chart with payment types and sum of order id*
* *Create a bar chart with sum of order id and payment instalment*

1. *Create seller location report*

* *Select map visual and add in average of geolocation lat and geolocation lon, geolocation city (values).*
* *Set to colour by geolocation state*
* *Add legend of states*
* *Add sellers card*
* *Create bar chart with count of sellers and state*

*Add report to dashboard*

1. *Add relevant data to Powerpoint*

* *Added text to slides*
* *Made recommendations*
* *Added interactable power BI reports and dashboard*

1. *Create Mobile layouts (Marie and Owen)*

* *Rearranged the reports and the dashboard in mobile view.*

1. *Clean up/****beautify*** *design (Ruth, Is* ***amazing*** *at beautifying)*

* *Add interactable button for navigating pages*
* *Colour report pages*

1. *PowerBI AI Q&A (Marie and Adrian)*

* *Add relevant keywords and test it out.*