**Problem Statement with Feature Description**

**Level:-** intermediate

**Recommended use:-** Clustering and Classification Models

**Domain :-** Psychometrics - This is a field of study using which we can track human behaviour

**Project outcome :-** Commercial and social value

**Problem Statement:-** To analyse the effect of COVID-19 on Individual mindsets and their spending patterns

**Objectives :-**

1. EDA- To draw insights that will explain change in personality traits and spending behaviour

2.Clustering problem- To identify what personality (w.r.t interests, preferences, spending patterns) was dominant before and how it changed now

3.Predictive modelling- Based on the spending patterns, predicting what kind of a spending person he/she will be (high, medium, low)

4.Creating Dashboard - creating an insightful dashboard that will be socially and commercially informative

**Dataset information :-**

We conducted a survey and gathered real time data from across locations. The survey received 471 responses and contained 44 questions. Finally, two datasets (before Corona, Present) of sizes 471\*42 and 471\*44 were obtained. The datasets are mostly dominated by categorical features.

**Data Dictionary:**

|  |  |  |
| --- | --- | --- |
| *Questions/Feature Description* | *Features* | *Features* |
|  | *Before Corona* | *Present* |
| *Generic* |  |  |
| What is your age? | Age (Age groups) | Age (Age groups) |
| What is your annual income? | Income | Income |
| What is your employment status? | Emp\_stat\_Before | Emp\_stat\_Present |
| What gender do you identify as? | Gender | Gender |
| Are you married? | Marital\_status | Marital\_status |
| Where is your home located (state) ? | loc | loc |
|  |  |  |
| *Personality traits* |  |  |
| I take notice of what goes on around me. | Notice\_things\_Before | Notice\_things\_Present |
| I look at things from all different angles before I go ahead. | All\_angles\_Before | All\_angles\_Present |
| I constantly strive to be sincere and productive at work | Sincere\_prod\_Before | Sincere\_prod\_Present |
| I feel lonely in life. | Lonely\_Before | Lonely\_Present |
| I worry about my health | Worry\_health\_Before | Worry\_health\_Present |
| I always give to charity. | Charity\_Before | Charity\_Present |
| I can quickly adapt to a new environment. | New\_env\_Before | New\_env\_Present |
| I enjoy meeting new people. | Meeting\_ppl\_Before | Meeting\_ppl\_Present |
| I have many different hobbies and interests. | Hob\_interests\_Before | Hob\_interests\_Present |
| I enjoy taking part in surveys. | Surveys\_Before | Surveys\_Present |
| How much time do you spend online? | Spent\_onli\_Before | Spent\_onli\_Present |
| I prefer Working from home over going to workspace | WFH\_office\_Before | WFH\_office\_Present |
| Enthusiasm to start something new or have a change in the usual. | Enthu\_Before | Ethu\_Present |
| Change in your income due to pandemic | ---- | Income\_Change |
|  |  |  |
| *Health habits* |  |  |
| Smoking habits | Smoking\_hab\_Before | Smoking\_hab\_Present |
| Drinking habits | Drinking\_hab\_Before | Drinking\_hab\_Present |
| Sleeping habits | Sleeping\_hab\_Before | Sleeping\_hab\_Present |
| I live a very healthy lifestyle. | Healthy\_Lifestyle\_Before | Healthy\_Lifestyle\_Present |
| Which kind of medicine do you prefer | Medi\_pref\_Before | Medi\_pref\_Present |
|  |  |  |
| *Interests* |  |  |
| Interest in Politics. | Pol\_interest\_Before | Pol\_interest\_Present |
| Spending time on Internet. | Internet\_interest\_Before | Internet\_interest\_Present |
| Interest in Economy and Management. | Economy\_Manag\_intrst\_Before | Economy\_Manag\_intrst\_Present |
| Interest in things related to medicine | Medicine\_intrst\_Before | Medicine\_intrst\_Present |
| Views on Religion | Religion\_intrst\_Before | Religion\_intrst\_Present |
|  |  |  |
| *Spending habits* |  |  |
| I save all the money I can. | Save\_all\_money\_Before | Save\_all\_money\_Present |
| I prefer branded food products (Organic and Famous food brands) to non branded. | Brand\_non-brand\_Before | Brand\_non-brand\_Present |
| Food preferences | Food\_pref\_Before | Food\_pref\_Present |
| which mode of transport do you prefer? | Mode\_of\_transport\_Before | Mode\_of\_transport\_Present |
| I keep stock of basic medications | Basic\_medications\_Before | Basic\_medications\_Present |
| I prefer digital content more than going out and spending for entertainment | Digital\_content\_Before | Digital\_content\_Present |
| I am an active investor (Stocks, Mutual funds, Gold e.t.c) | Active\_Investor\_Before | Active\_Investor\_Present |
| I prefer reasonable fee charging educational institutions over expensive institutions | Edu\_instit\_fee\_Before | Edu\_instit\_fee\_Present |
| How did your spending on data change | —— | change\_in\_data\_consumption |
| I like spending on gadgets | Spend\_on\_gadgets\_Before | Spend\_on\_gadgets\_Present |
| I spend on Non-essential/Luxury items also. | Spend\_on\_Luxury\_Before | Spend\_on\_Luxury\_Present |
| Number of domestic helps | Domestic\_help\_Before | Domestic\_help\_Present |
| I keep track on my household expenses | Track\_Household\_exp\_Before | Track\_Household\_exp\_Present |
| On a generic scale, what kind of spending person you think you are? | Spending\_kind\_Before | Spending\_kind\_Present |