

**Actionable Insights
To Grow The
Business**

Clean the Data Properly

▼ Data Cleaning

Handling Missing Value

+ 12 cells hidden

Handling Wrong Format

+ 21 cells hidden

Handling Text Errors

+ 19 cells hidden

Handling duplicates

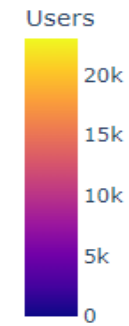
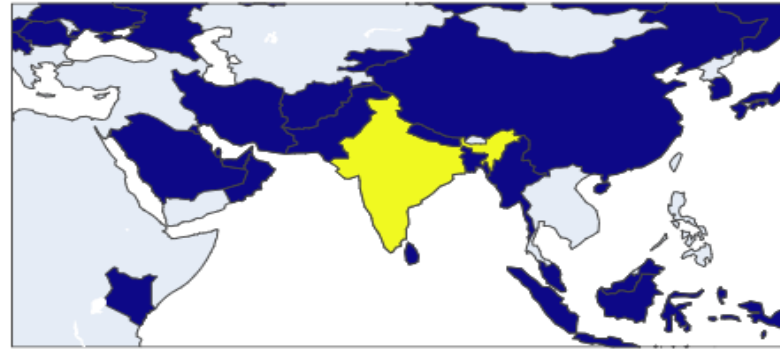
+ 10 cells hidden

A perfect data cleaning output ensures that the dataset is accurate, consistent, and ready for analysis, improving the reliability and validity of subsequent data-driven tasks. So I will do this step on my Jupyter Notebook if want see my cleaning part check my Github repositories Link

<https://github.com/Karthiktnj/BA.git>

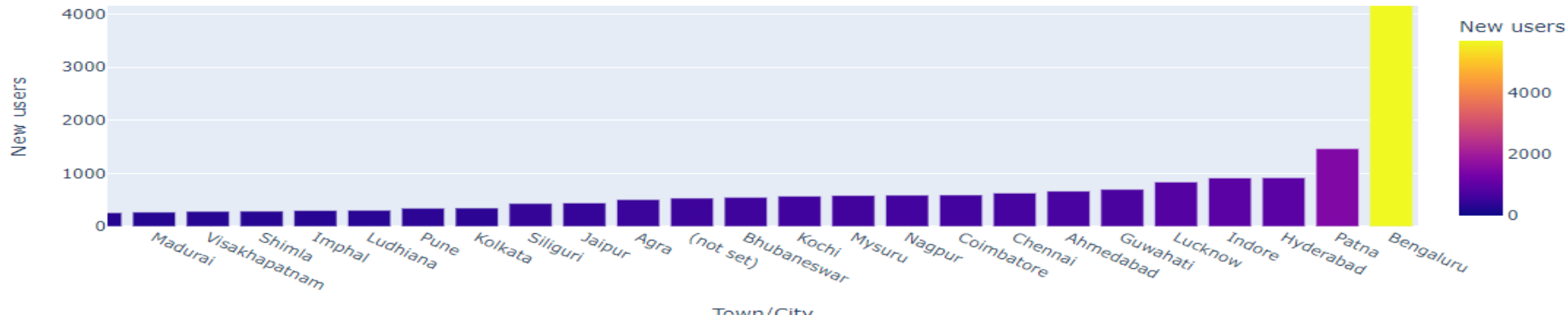
Exploratory Data Analysis

```
fig = px.choropleth(data_frame=country,  
                    locations='Country',  
                    color='Users',  
                    locationmode='country names')  
fig.show()
```



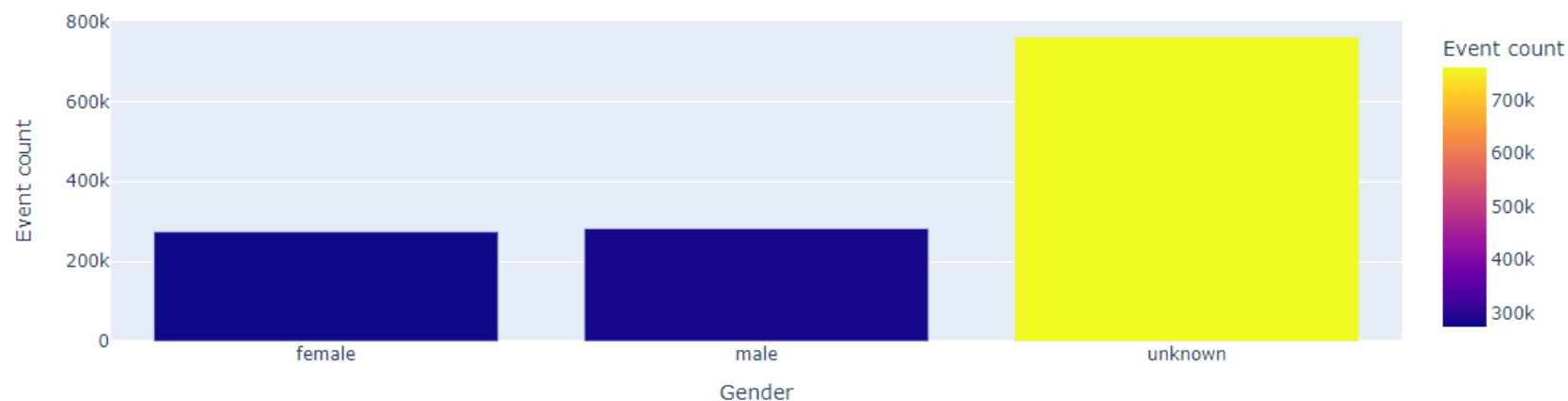
Most users accessing this website are located in India.

```
] rev_df = city.groupby('Town/City',as_index=False)['New users'].mean().sort_values(by='New users')  
fig = px.bar(data_frame=rev_df,x='Town/City',y='New users',color='New users')  
fig.show()
```



Most new users accessing this website are located in Bangalore City.

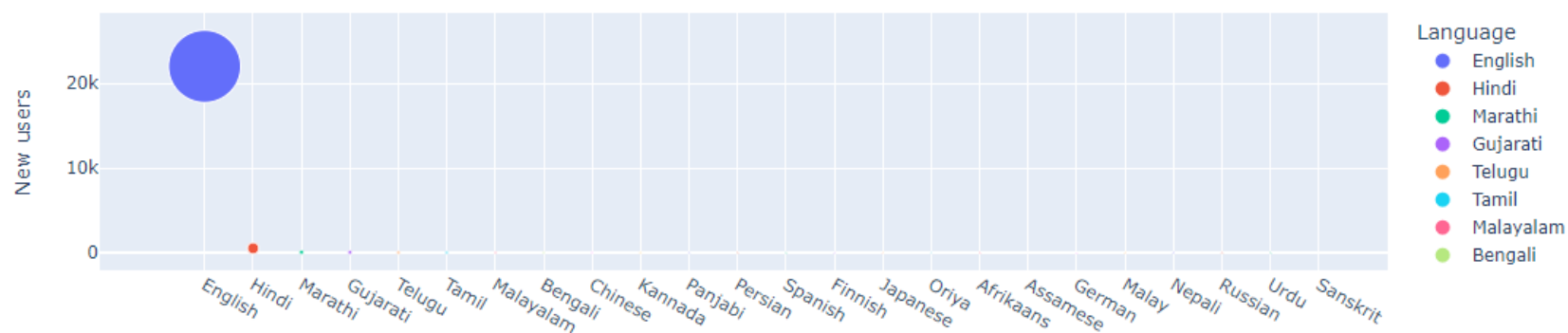
```
rev_df = gender.groupby('Gender',as_index=False)['Event count'].mean().sort_values(by='Event count')
fig = px.bar(data_frame=rev_df,x='Gender',y='Event count',color='Event count')
fig.show()
```



Most instances of 'unknown' gender likely indicate that users utilizing VPNs are unable to access our details.

```
fig = px.scatter(data_frame=language,
                 x='Language',y='New users',
                 color='Language',
                 size='New users',
                 opacity=1,
                 size_max=35,
                 title='Avg New users in each Language')
fig.show()
```

Avg New users in each Language



Most language users speak Hindi, as it is the mother tongue of a majority of people in India.

Town/City	Sum of Users	Sum of New users	Sum of Conversions
Bengaluru	6097	5685	62939
Hyderabad	1038	920	34103
Chennai	798	631	9772
Patna	1594	1467	6980
Mysuru	809	585	5735
Bhubaneswar	572	551	5463
Coimbatore	749	596	4602
Indore	983	915	4121
Lucknow	897	839	3650
Kochi	655	573	3633
Ahmedabad	719	667	3223
Pune	439	346	3187
Guwahati	745	700	3159
(not set)	767	536	3085
Nagpur	645	593	2820
Total	26521	22872	193914

Country	Sum of Users	Sum of New users	Sum of Conversions
France	1	0	7
Germany	7	2	9
Guernsey	1	1	2
Hungary	0	0	1
India	23024	22528	192766
Indonesia	2	1	3
Iran	1	0	1
Ireland	2	2	4
Italy	2	2	4
Japan	11	6	24
Kenya	0	0	0
Kuwait	4	3	11
Kyrgyzstan	1	1	2
Latvia	1	1	1
Total	23507	22872	193914

110.57K

Average of Event count

12.85

Sum of Engagement rate

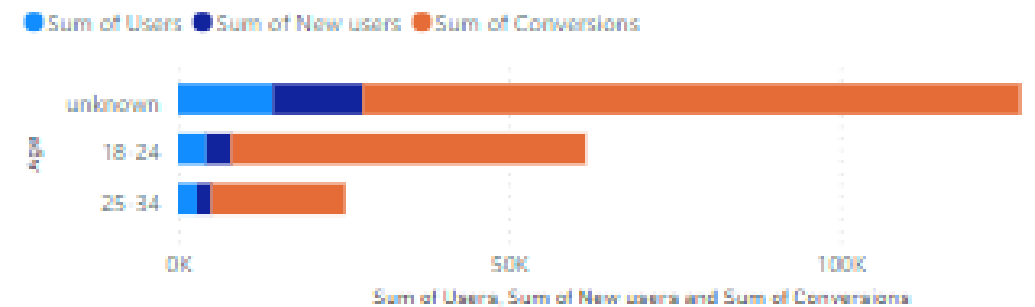
1566

Median of New users

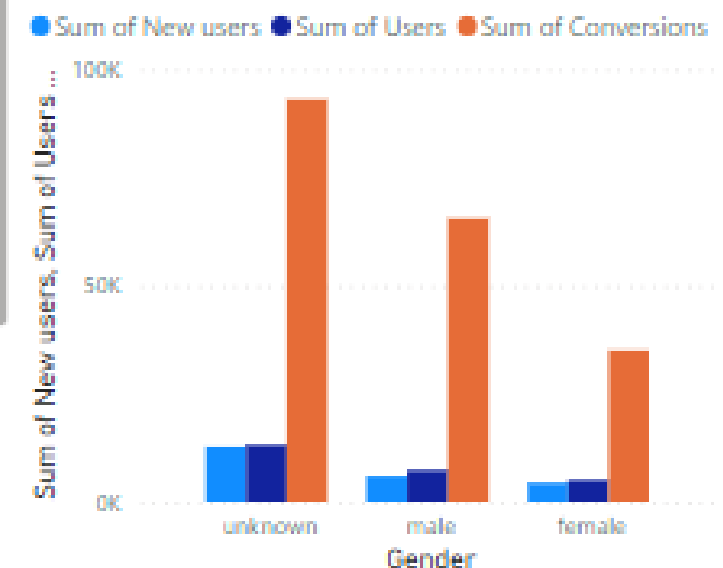
Language	Sum of Users	Sum of New users	Sum of Conversions
Afrikaans	1	1	2
Assamese	1	0	1
Bengali	14	11	39
Chinese	13	13	20
English	22495	21990	189946
Finnish	4	3	11
German	1	1	2
Gujarati	78	77	327
Hindi	586	552	2699
Japanese	4	4	12
Kannada	13	12	75
Malay	1	1	2
Malayalam	17	15	71
Marathi	85	84	323
Nepali	1	1	2
Total	23422	22872	193914

First user default channel group	Sum of New users	Sum of Event count	Sum of Conversions
Direct	1903	227434	31093
Display	9957	204820	37434
Organic Search	7652	770710	109801
Organic Social	10	248	27
Total	22872	1318529	193914

Sum of Users, Sum of New users and Sum of Conversions by Age



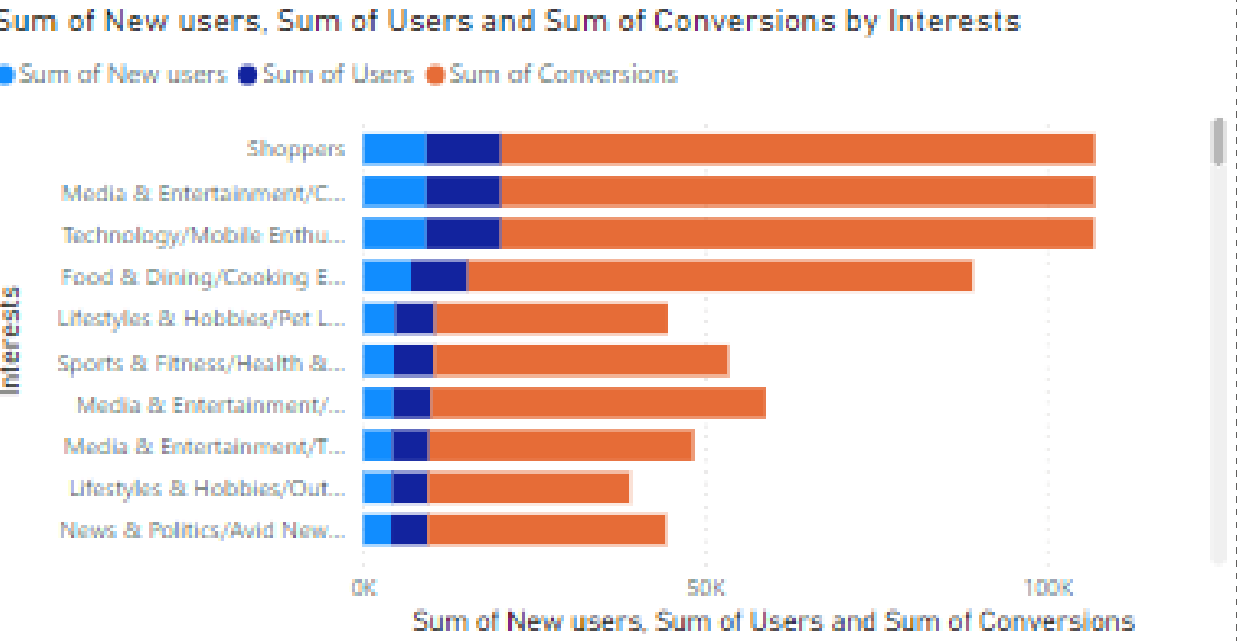
Sum of New users, Sum of Users and Sum of Conversions by Gender



First Page path and screen class	Users	Sum of Conversions	Sum of Average engagement time
CAMImagePickerController	2	0	8.50
campaign_meeting	3	0	318.67
SLComposeViewController	4	0	15.25
PHPickerViewController	10	0	9.50
my profile others	12	1	123.83
UIActivityContentViewController	17	0	32.41
UIActivityViewSuccessController	18	0	0.11
SFSafariViewController	21	0	46.86
my profile professional	23	0	184.09
CustomTabActivity	24	0	1.67
SFAuthenticationViewController	45	0	12.20
campaign_interest	58	0	42.38
calculator two	73	0	9.29
calculator one	151	0	41.01
FlutterViewController	155	18	15.63
(not set)		90119	2,053.74

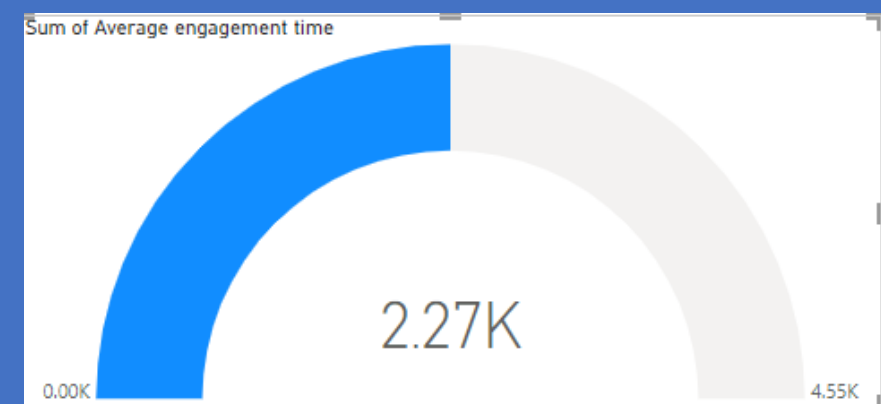
Session Google Ads campaign	Users	Event count	Conversions	Cost per conversion
App Instal-6to10NC-States-A200Inst-07Jul22	242	6092	630	14.61
App Install for April -- Shahid	473	8001	1115	18.41
App Install-1to5NC-StateA200-07Jul22	370	10864	709	12.47
App installation for May 06-05-2022 T1	2	163	5	3.32
App Installation for May --Shahid	5429	97802	12257	14.62
App Install-States-A200Inst-20Jun22	842	15311	1794	13.55
App Install-States-B100Installs-22Jun22	742	11640	1422	15.73
App Instal-States-B200 &A100Inst-22Jun22	373	7504	851	14.09
App promotion-App-3	732	10825	922	13.11
Video-ApplInstall-PS-Browsing-11Jul22	91	2172	206	7.45
Video-ApplInstall-PS-Colleges-11Jul22	46	1268	101	12.51
Video-ApplInstall-PS-Internships-11Jul22	510	10323	1032	6.18
Video-ApplInstall-PS-Jobs-11Jul22	25	731	53	15.10
Video-ApplInstall-PS-Videos-11Jul22	38	728	76	12.31
Video-ApplInstall-PS-Webinar-11Jul22	78	1600	150	12.69

7.08K	(Blank)	(Blank)	146687
Average of Views	Sum of Total ...	Sum of Conve...	Sum of Total users
15	app_remove		
Count of Google Ads cost	12538	12468	18030
	Sum of Total ...	Sum of Conve...	Sum of Total users
1.22K	first_open		
Sum of Event count per user	23059	22872	23059
	Sum of Total ...	Sum of Conve...	Sum of Total users
	notification_open		
	308	569	348
	Sum of Total ...	Sum of Conve...	Sum of Total users
	notification_receive		



As a **Business Analyst**, My suggestion is to thoroughly analyze the provided dataset,

Country	Sum of Conversions	Sum of New users	Sum of Users	Sum of Event count	Sum of Average engagement time
United Kingdom	43	8	20	289	61.85
Singapore	29	6	17	299	70.00
Japan	24	6	11	283	51.45
Australia	22	7	10	132	26.90
Bangladesh	20	2	7	121	49.86
Malaysia	19	7	7	507	536.00
Nepal	18	3	7	74	13.86
Myanmar (Burma)	16	2	3	142	47.00
United Arab Emirates	15	3	5	64	7.60



The number of users in Malaysia is only 7, yet the total engagement time is 536, with an average of 19 conversions. To improve and maximize future profitability, efforts should be directed towards enhancing user acquisition and engagement strategies in the Malaysian market.

First Town/City	Sum of Users	Sum of New users	Conversions	Sum of Average engagement time
Mysuru	809	585	5735	331.35
Bhubaneswar	572	551	5463	85.56
Coimbatore	749	596	4602	329.57
Indore	983	915	4121	67.89
Lucknow	897	839	3650	83.41
Kochi	655	573	3633	265.99
Ahmedabad	719	667	3223	75.37
Pune	439	346	3187	105.21
Guwahati	745	700	3159	73.20

337.83

Average of Conversions

The cities of Mysuru, Bhubaneswar, Coimbatore, Indore, Pune, Kochi, Guwahati, Ahmedabad and Lucknow are experiencing a decrease in new user conversions of more than 5000. It is essential to implement strategies to improve and maximize profits in the future.

Event name	Sum of Total users	Sum of Event count	Sum of Event count per user
screen_view	23254	694729	30.87
notification_receive	1700	125146	138.90
user_engagement	22699	124836	5.62
notification_dismiss	1369	70128	144.00
session_start	23226	61163	3.12
first_open	23059	22872	0.99
app_remove	18030	18080	4.04
Promilo113_Login	6174	12719	2.07

Session Google Ads campaign	Conversions	Users	Event count	Google Ads clicks	Sessions
App Installation for May --Shahid	12257	5429	97802	147100	10936
App Install-States-A200Inst-20Jun22	1794	842	15311	28742	1655
App Install for April -- Shahid	1115	473	8001	19302	976
App Install-States-B100Installs-22Jun22	1422	742	11640	17809	1332
App Instal-States-B200 &A100Inst-22Jun22	851	373	7504	10595	742
Video-AppInstall-PS-Internships-11Jul22	1032	510	10323	9831	966
App promotion-App-3	922	732	10825	5793	945
App Instal-6to10NC-States-A200Inst-07Jul22	630	242	6092	4475	432
App Install-1to5NC-StateA200-07Jul22	709	370	10864	3659	610

The importance of notifications lies in their ability to enhance profitability and increase conversions, especially when utilizing Google Ads.

Language	Sum of Users	Sum of New users	Sum of Conversions
English	22495	21990	189946
Hindi	586	552	2699
Gujarati	78	77	327
Marathi	85	84	323
Telugu	43	42	170
Tamil	36	36	115
Kannada	13	12	75
Malayalam	17	15	71
Bengali	14	11	39

194K

Sum of Conversions

To maximize profits, it is crucial to prioritize the importance of Indian languages, given that a significant portion of our user base resides in India. Focusing on multiple languages used in the region will enhance user engagement and contribute to increased profitability.

Age	Sum of Users	Sum of New users	Sum of Conversions	Sum of Average engagement time
18-24	4282	3678	53661	251.16
25-34	2920	2161	20172	97.24
35-44	1202	785	8111	96.08
45-54	810	552	2946	84.54
55-64	1403	979	4823	55.37
65+	1422	1081	4891	52.31
unknown	14303	13636	99310	422.22
Total	26342	22872	193914	1,058.93

Page path and screen class	Users	Conversions	Sum of Views
Flutter	8726	328	156708
MainActivity	8978	101	44326
feeds	4358	253	18514
login	7291	435	16883
my_rewards_screen	2045	5	15381
storyboard	5244	115	8189
SignInHubActivity	3778	0	6650
registration_screen	3566	136	5501
feedDetails	1047	84	3971
Total			297413

The age group of 18 to 24 consistently shows high views and conversions, indicating a lucrative market. Therefore, it is advisable to focus on this demographic to maximize profits

I have assumed that by analyzing this dataset, I can provide suggestions to improve business profits. Thank you for viewing My presentation.