Notebook to edit CSV file containing data of Online Marketing Campaigns In [1]: # Importing Depencies import pandas as pd import matplotlib as plt import numpy as np In [2]: # Reading File file = pd.read_csv('Book1.csv') file.head() # total of 377 rows of data Out[2]: company department brand partner campaign leads cpl cost nb_customer CAHT renta_rate ROAS 1830 NORTH gaga-br-web ABC gaga - BR - BR - adc - id8 8142 0.25 2035.50 57 428.64 0.2106 21.1 28 242.79 1 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 692.00 0.3509 35.1 1730 0.40 gaga - BR - BR - aza1 - id16 2 1830 NORTH gaga-br-web AZA 117 0.50 58.50 1 4.59 0.0785 7.8 3 1830 NORTH gaga-br-web CA gaga - BR - PT - ca - id22 381 1.25 476.25 1 27.36 0.0574 5.7 1830 NORTH gaga-br-web gaga - BR - BR - la - id9 1277 0.50 638.50 32 300.61 0.4708 47.1 LA # Formating 'campaign' In [3]: file.campaign.apply(str) file.head() company department Out[3]: brand partner campaign leads cpl cost nb_customer CAHT renta_rate ROAS 0 ABC gaga - BR - BR - adc - id8 8142 0.25 2035.50 57 428.64 0.2106 21.1 1830 NORTH gaga-br-web 1830 28 242.79 0.3509 1 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 1730 0.40 692.00 35.1 117 0.50 2 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza1 - id16 58.50 4.59 0.0785 7.8 5.7 3 1830 NORTH gaga-br-web CA gaga - BR - PT - ca - id22 381 1.25 476.25 1 27.36 0.0574 1830 NORTH gaga-br-web LA gaga - BR - BR - Ia - id9 1277 0.50 638.50 32 300.61 0.4708 47.1 # Creating 'Campaign ID' column In [4]: file.insert(5, "Campaign ID", True) file.head() ROAS company department brand partner campaign Campaign ID leads cpl cost nb_customer CAHT renta_rate Out[4]: NORTH gaga-br-web 1830 ABC gaga - BR - BR - adc - id8 8142 0.25 2035.50 57 428.64 0.2106 21.1 0 True 1 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 True 1730 0.40 692.00 28 242.79 0.3509 35.1 2 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza1 - id16 117 0.50 58.50 4.59 0.0785 7.8 True 1 1830 NORTH gaga-br-web CA gaga - BR - PT - ca - id22 381 1.25 476.25 27.36 0.0574 5.7 True 0.4708 1830 gaga - BR - BR - la - id9 True 1277 0.50 638.50 32 300.61 47.1 NORTH gaga-br-web LA In [5]: # Filling in 'Campaign ID' with respective code of 'Campaign' file['Campaign ID'] = file['campaign'].str.split("-", 4).str[-1] file.head() campaign Campaign ID leads cost nb_customer CAHT renta_rate ROAS Out[5]: company department brand partner cpl 0 1830 ABC gaga - BR - BR - adc - id8 8142 0.25 2035.50 0.2106 21.1 NORTH gaga-br-web id8 57 428.64 28 242.79 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 PUSH - id17 1730 0.40 692.00 0.3509 35.1 2 1830 AZA gaga - BR - BR - aza1 - id16 id16 117 0.50 58.50 4.59 0.0785 7.8 NORTH gaga-br-web 1 1830 NORTH gaga-br-web CA gaga - BR - PT - ca - id22 id22 381 1.25 476.25 27.36 0.0574 5.7 1830 1277 0.50 638.50 32 300.61 0.4708 gaga - BR - BR - la - id9 id9 47.1 NORTH gaga-br-web LA # Creating 'Region' column In [6]: file.insert(6, "Region", True) file.head() campaign Campaign ID Region leads cost nb_customer CAHT renta_rate ROAS Out[6]: company department brand partner cpl 8142 0.25 2035.50 True 0.2106 21.1 0 ABC gaga - BR - BR - adc - id8 id8 57 428.64 1830 NORTH gaga-br-web NORTH gaga-br-web 1 1830 AZA gaga - BR - BR - aza - PUSH - id17 PUSH - id17 True 1730 0.40 692.00 28 242.79 0.3509 35.1 2 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza1 - id16 id16 117 0.50 58.50 4.59 0.0785 7.8 True 1 1830 gaga - BR - PT - ca - id22 id22 381 1.25 476.25 27.36 0.0574 5.7 NORTH gaga-br-web CA True NORTH gaga-br-web 1277 0.50 32 300.61 0.4708 47.1 1830 id9 638.50 LA gaga - BR - BR - la - id9 True # Filling in 'Region' with respective code of 'Campaign' In [7]: file['Region'] = file['campaign'].str.split("-", 4).str[2] file.head() campaign Campaign ID Region leads cost nb_customer CAHT renta_rate **ROAS** Out[7]: company department brand partner cpl 0 1830 NORTH gaga-br-web ABC gaga - BR - BR - adc - id8 id8 BR 8142 0.25 2035.50 57 428.64 0.2106 21.1 1 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 PUSH - id17 BR 1730 0.40 692.00 28 242.79 0.3509 35.1 NORTH gaga-br-web 7.8 1830 AZABR 58.50 4.59 0.0785 2 gaga - BR - BR - aza1 - id16 id16 117 0.50 1 1830 CA gaga - BR - PT - ca - id22 id22 381 1.25 476.25 1 27.36 0.0574 5.7 NORTH gaga-br-web id9 1277 0.50 638.50 32 300.61 0.4708 47.1 1830 NORTH gaga-br-web LA gaga - BR - BR - la - id9 BR # Creating 'Language' column In [8]: file.insert(7, "Language", True) file.head() campaign Campaign ID Region Language leads cost nb_customer CAHT renta_rate ROAS Out[8]: company department brand partner cpl 0 1830 NORTH gaga-br-web ABC gaga - BR - BR - adc - id8 id8 BR True 8142 0.25 2035.50 57 428.64 0.2106 21.1 1 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 PUSH - id17 BR 1730 0.40 692.00 28 242.79 0.3509 35.1 True id16 BR 117 0.50 58.50 4.59 0.0785 7.8 2 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza1 - id16 True 1 NORTH gaga-br-web 3 1830 CA gaga - BR - PT - ca - id22 id22 PT True 381 1.25 476.25 27.36 0.0574 5.7 id9 BR 1277 0.50 638.50 0.4708 47.1 4 1830 NORTH gaga-br-web LA gaga - BR - BR - la - id9 True 32 300.61 # Filling in 'Language' with respective code of 'Campaign' In [9]: file['Language'] = file['campaign'].str.split("-", 4).str[1] file.head() cost nb_customer company department campaign Campaign ID Region Language leads CAHT renta_rate ROAS Out[9]: brand partner cpl 0 1830 NORTH gaga-br-web ABC gaga - BR - BR - adc - id8 id8 BR BR 8142 0.25 2035.50 57 428.64 0.2106 21.1 1 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 PUSH - id17 BR BR 1730 0.40 692.00 28 242.79 0.3509 35.1 gaga - BR - BR - aza1 - id16 2 1830 NORTH gaga-br-web AZA id16 BR BR 117 0.50 58.50 1 4.59 0.0785 7.8 NORTH gaga-br-web 3 1830 CA gaga - BR - PT - ca - id22 id22 PT BR 381 1.25 476.25 27.36 0.0574 5.7 1 1277 0.50 id9 BR 638.50 32 300.61 0.4708 47.1 1830 NORTH gaga-br-web LA gaga - BR - BR - la - id9 BR In [10]:

Replacing all 'BR' (Brasil) values to 'PT' (Portuguese) in 'Language' column file['Language'].replace('BR', 'PT')

campaign Campaign ID Region Language leads cost nb customer CAHT renta_rate ROAS Out[10]: company department brand partner cpl 0 gaga - BR - BR - adc - id8 8142 0.25 2035.50 428.64 0.2106 21.1 1830 NORTH gaga-br-web ABC 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 PUSH - id17 BR 0.3509 1 BR 1730 0.40 692.00 28 242.79 35.1 117 0.50 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza1 - id16 id16 BR 58.50 4.59 0.0785 7.8 NORTH gaga-br-web id22 PT 0.0574 1830 CA gaga - BR - PT - ca - id22 381 1.25 476.25 27.36 5.7 gaga - BR - BR - la - id9 1830 NORTH gaga-br-web LA id9 BR 1277 0.50 638.50 32 300.61 0.4708 47.1

file.drop(['CAHT'], axis= 1, inplace= True) file.head() company department campaign Campaign ID Region Language leads Out[11]: brand partner cpl

ROAS cost nb_customer renta_rate 1830 NORTH gaga-br-web ABC gaga - BR - BR - adc - id8 BR 8142 0.25 2035.50 57 0.2106 21.1 id8 1 PUSH - id17 BR 692.00 1830 NORTH gaga-br-web AZA gaga - BR - BR - aza - PUSH - id17 BR 1730 0.40 28 0.3509 35.1 117 0.50 2 1830 NORTH gaga-br-web AZAgaga - BR - BR - aza1 - id16 id16 BR 58.50 1 0.0785 7.8 BR 3 PT 1830 NORTH gaga-br-web CA gaga - BR - PT - ca - id22 id22 BR 381 1.25 476.25 1 0.0574 5.7 1277 0.50 1830 NORTH gaga-br-web LA gaga - BR - BR - la - id9 id9 BR 638.50 32 0.4708 47.1

new_file = file.rename(columns={'company': 'Company', \ 'department': 'Geo Location',\ 'brand': 'Brand',\ 'partner': 'Partner',\ 'campaign': 'Campaign',\ 'leads':'Leads Generated', 'cpl': 'Cost Per Lead',\ 'cost': 'Cost of Campaign',\ 'nb_customer': 'New Customers', \ 'renta_rate': 'Effectivenes Rate',\ 'ROAS': 'ROAS'}) new_file.head()

file.head()

In [11]:

In [12]:

Deleting 'CAHT' column

Renaming all columns

Effectivenes Out[12]: Geo Campaign Leads **Cost Per** Cost of New Company **Brand Partner** Campaign **ROAS** Region Language Location Generated Lead Campaign Customers Rate gaga-br-1830 **NORTH** ABC gaga - BR - BR - adc - id8 BR 0 id8 BR 8142 0.25 2035.50 57 0.2106 21.1 web gaga-brgaga - BR - BR - aza - PUSH -PUSH - id17 1830 **NORTH** 1730 692.00 28 0.3509 35.1 1 AZA BR BR 0.40 id17 web gaga-br-2 **NORTH** BR 0.0785 1830 AZA gaga - BR - BR - aza1 - id16 id16 BR 117 0.50 58.50 1 7.8 web gaga-br-3 1830 **NORTH** PT BR 381 476.25 1 0.0574 CA gaga - BR - PT - ca - id22 id22 1.25 5.7 web gaga-br-1830 **NORTH** BR BR 1277 0.50 638.50 32 0.4708 4 LA gaga - BR - BR - la - id9 id9 47.1 web

new_file.to_csv('Final_file.csv', index = False, encoding='utf-8') In [15]: