Take home Challenge: Senior Product Data Analyst

FREE NOW is the multi-service mobility joint venture backed by BMW Group and Daimler AG. Next to ride-hailing, FREE NOW also offers micro-mobility services such as e-scooters, e-bikes, e-Vespas as well as car sharing, all under the same app.

Instructions

1) Explore the Passenger FREENOW APP. Familiarize yourself with its features, interface, and functionalities.

- After exploring the app, identify one aspect or feature that you believe could be improved to enhance the user experience
- In a brief paragraph, explain your suggested change and why you believe it is important. Consider factors such as usability, efficiency, accessibility, or user satisfaction
- Describe how you would determine the importance of your proposed change
- Outline how you would measure the success of your proposed change. Define relevant metrics or key performance indicators (KPIs)

Compile your answers to the previous questions into a single slide presentation. Include a screenshot of the area of the app you would like to improve to provide context.

2) You are tasked with helping the Supply Product team to better understand user interaction, metrics and engagement of FREENOW drivers:

Using the data from *Freenow_drivers* and *Freenow_drivers_activity* files, please answer:

1. What key metric(s) would you propose to monitor over time to measure the success of the team's efforts in improving Drivers engagement and why? Clearly define your metric(s) and present calculations showing trends or patterns as you see appropriate.

2. Can you help us identify which factors are associated with better engagement? What segments are doing well and what could be improved? Can you propose any recommendations (business initiatives or product changes) that could address these opportunities?

Using the data from Freenow_drivers_campaign file, please answer:

3. On a separate initiative, the team wanted to find out if a certain email campaign works to incentivise the drivers to be more active in our platform.To do so we divided the drivers in two groups A and B. Group B received an email informing drivers of when we expect high customer demand in the following week. Group A did not receive the email. Please find out about the effect of the campaign. Explain how you determine the impact and why you chose such a method to evaluate it.

Expected output

Summarise your findings, insights and recommendations in response to the questions above in a presentation containing maximum 10 slides, this will be used later in the process by you in a

session with the data team/stakeholders. We expect that this is structured as you would do it on a day to day, in order to present your findings/analysis to stakeholders.

Include an organized appendix sharing the details of your analysis that would be useful for the team to understand your work, this should include the code used. You can use SQL/Python/Jupyter Notebooks in order to explore the provided datasets. It's not allowed to use GPT tools to generate code, slides, or to explore the datasets.

Please package all work as a zip file and submit your output within 1 week of receiving the challenge. We will grade the assignment with the time you had to complete it in mind.

Data

A sample of data is provided in three separate .csv files:

1. Freenow_drivers.csv
2. Freenow_drivers_activity.csv
3. Freenow_drivers_campaign.csv

1.Freenow_drivers

A user table with data on FREE NOW drivers including:

- Id_driver: the driver ID
- Date_registration: the date when the user was activated in FREE NOW
- Driver_rating: the average rating of the driver last 100 rides
- Gold_level_count: amount of times the driver reached gold status meaning they were among the top performers in a specific week
- Receive_marketing: Takes one of two values, True if the driver accepted to receive marketing and campaign communications and False, if not
- Country_code: Country where the user operates
- Service_type: If the user is TAXI or a Private Hire Vehicle (PHV)

2. Freenow_drivers_activity

A summary of the user activity including:

- Id_driver: the driver ID
- Active_date: date when the user operated in the platform
- Offers: number of requests for a ride that a driver received
- Bookings: number of requests accepted by the driver
- Bookings_cancelled_by_passenger: number of requests accepted by the driver and then cancelled by the passenger, before the ride was completed
- Bookings_cancelled_by_driver: number of requests accepted by the driver and then cancelled by the driver, before the ride was completed
- Rides: number of rides completed by the driver

3. Freenow_drivers_campaign

A summary of the campaign data including:

- Driver: the driver identification number in the test (different from previous id_driver, don't try to join it)
- Rides_within_week: number of rides completed within one week after the update
- Test_group: Group that the driver was inserted in the email campaign.