**Project brief: Market analysis for QANDA, AI-based learning platform**

W.P Carey School of Business MSBA 2022, Sunhwa,Lauren, Lee

Project supervised by Arizona State University, Prof. Sang-Pil Han, Prof. Donghhyuk Shin

1. **Objective**

- Confirming QANDA, Al-based learning platform user distribution in Latin America & The Caribbean based on user data for 5 weeks and identifying user's socio-economic status

- By identifying the socio-economic characteristics of the users, analyzing how the online learning app contributes to the reducing learning gap caused by a regional economic gap or education environment.

1. **Process**

(1) Mass Data pre-processing and extracting geolocation information based on a recorded user dataset

- Using Python, Exploratory data analysis, and null data handling

- Based on user IP address, extracting user location information by using geolocation databases

(2) Data visualization - User dashboard development

- User location mapping on Tableau to confirm the pattern of user distribution.

- By allocating macroeconomic data from world bank and OECD, analyze users' socio-economic status based on geolocation characteristics

- Developing User dashboard to give current key information including User distribution by region, user ratio per population, economic location of the region, and information related to education infrastructure

1. **Result**
2. User dash board : Latin America & Caribbean ([link](https://public.tableau.com/views/Qanda_Dash_LAC_f/Dash?:language=en-US&:display_count=n&:origin=viz_share_link))
3. User dash board : Mexico ([link](https://public.tableau.com/views/Qanda_Dashboard_MX/MX_dash?:language=en-US&:display_count=n&:origin=viz_share_link))
4. Additional Research : Correlation board between user and socio economic status factors (to be updated)

**A picture containing map

Description automatically generatedGraphical user interface, application

Description automatically generated**

1. **Overall reviews**

It was a meaningful experience to handle real business data to effectively leverage companies’ data assets by applying the concept of data mining and the programming knowledge that I studied in the MSBA program. Most of all, I was able to have a deep understanding of the concept of database design that I learned in the CIS 505 class and refine my knowledge of hierarchical table relationships while developing dashboard.

# # #