DATA-225 Sec 21 - Db Systems for Analytics
Group Project 1- Report 1 Sep 19, 2021
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ABSTRACT

Crowdfunding is a system that enables individuals or ventures to seek small investments, contributions, or loans from a variety of funders online. Kiva is a crowdfunding platform that offers a new financing channel for small and micro businesses as well as individuals. The aim of the project is to build a database management system for Kiva platform to analyze the factors that influence crowdfunded projects by estimating the welfare level of partners in specific regions, based on shared financial and demographic aspects. Technologies such as mysql workbench would be used to create the database management system and its schema including relationships based on region, funding, project type, etc. Using Tableau, a powerful visualization tool, we can observe, understand and draw conclusions on better funded categories, borrowing patterns and regional analysis from the data. The system can be deployed on cloud-based platforms such as AWS using Python for better accessibility and security. This project can help improve access to crowdfunding, assess borrower welfare levels, by analyzing the growth of previously funded projects and benefit Kiva with a better database system to enhance their platform.

DESCRIPTION

The Dataset was provided by Kiva as part of Kaggle's Data Science for Good challenge, and contains 4 csv files with 54 attributes total, which includes 30 string, 7 decimal, 4 datetime and 13 other data types. The first table consists of 20 columns, detailing the id, funded amount, loan amount, country code, country, currency, region, etc. Similarly, the second, third and fourth table outlines data snapshot and can be matched to the loan theme regions to get a loan's location and provides details for id, loan theme id, loan theme type, partner id and MPI (Multidimensional Poverty Index). Extracting several insights from the historical micro-loans over a period of time and correlating the regional averages by gender, sector, or borrowing behavior to estimate the welfare rate is to be followed.

DATASET LINK

https://www.kaggle.com/kiva/data-science-for-good-kiva-crowdfunding

REFERENCES

1. Smith, Tim. "Crowdfunding." Investopedia, Investopedia, 13 Sept. 2021, www.investopedia.com/terms/c/crowdfunding.asp.

2. S. Yu, Crowdfunding and regional entrepreneurial investment: an application of the CrowdBerkeley database, Research Policy, Volume 46, Issue 10, 2017, Pages 1723-1737, ISSN 0048-7333, https://doi.org/10.1016/j.respol.2017.07.008