

AI-DRIVEN EXPLORATION AND PREDICTION OF COMPANY REGISTRATION TRENDS WITH REGISTRAR OF COMPANIES (ROC)

Due Date : 22/09/2023
Completion Date: 20/10/2023

Project Title: ROC Company Analysis

Project Summary:

In this document, we can clearly see about above project in this document. And discuss about problem definition, scope of project, vision of project, phase of projects, detail about team members, what will we do, how it will be complete, requirements, problem analysis and conclusion.

The AI-driven analysis aims to uncover hidden patterns, discover valuable insights into the company landscape, and forecast future registration trends. By applying cutting-edge AI algorithms, the study seeks to identify unique characteristics and relationships among registered companies, enabling a more sophisticated understanding of the business ecosystem in Tamil Nadu.

Development Platform: Google Colab Jupyter notebook

Dataset Link: <https://tn.data.gov.in/resource/company-master-data-tamil-nadu-upto-28th-february-2019>

Problem Definition:

The problem is to perform an AI-driven exploration and predictive analysis on the master details of companies registered with the Registrar of Companies (ROC). The objective is to uncover hidden patterns, gain insights into the company landscape, and forecast future registration trends. This project aims to develop predictive models using advanced Artificial Intelligence techniques to anticipate future company registrations and support informed decision-making for businesses, investors, and policymakers.

Scope of Project:

The scope of ROC is limited to the companies and the limited liability partnership in India. The ROC's primary duty is to register the companies incorporated in respective states or Union Territories.

The ultimate goal is to develop predictive models that can anticipate future company registrations and contribute to informed decision-making for businesses, investors, and policymakers.

Milestone of Project:

PHASE NO	NAME OF PHASE	DESCRIPTION	DATE OF COMPLETION
1	Problem definition and design thinking	Create algorithm to prepare the data and determine how to evaluate the future analysis.	29/09/2023
2	Innovation	Use Ensembling methods for improved predictive accuracy	06/10/2023
3	Development part 1	Exploration and prediction project by loading the data, Preprocessing the dataset.	13/10/2023
4	Development part 2	Performing the EDA, Feature Engineering, predictive model	20/10/2023

Design Thinking:

In the project summary, I declared my dataset. In this, I would be clean and preprocess the data, evaluate the predictive model.

Steps involved in designing the data,

1. Use Google Colab software for this project. Use python language to model the data.
2. Get the data from Dataset link.
3. Data preprocessing (clean and preprocess, handling missing values).
4. Use Exploratory Data Analysis (EDA) to understand the distribution analysis with visualization and relationship.
5. Create relevant features that can contribute to predictive analysis.
6. Create predictive modelling.
7. Finally, evaluate the predictive models.

Challenges and Future Work:

Address any challenges encountered during the project and process area for future improvements or enhancements. Explore data-related challenges. Discuss limitations of the AI models, including scenarios where predictions may not be accurate. Challenge in the part of categorical data is

convert into numerical data. While create relevant features that can contribute to predictive analysis, prediction accuracy.

Conclusion:

Certainly, here concluding the project documentation for AI-driven exploration and prediction of company registration trends with registrar of companies, we summarize the key finding , insights and implication derived from our AI-driven exploration and prediction trends are achieved their own and future prediction will executed successful when above all done.

Refrence:

In the project, cite source, data providers, research libraries, skillup dashboard are attached to the project dataset along with short procedure.

