

**UNIVERSITY COLLEGE OF ENGINEERING**



**PATTUKOTTAI**

# **The Future of Work: Data Analysis Of Glassdoor Jobs.**

## **TEAM:**

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# THE FUTURE WORK: THE DATA ANALYSIS ON GLASSDOOR JOBS

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## INTRODUCTION:

### OVERVIEW:

Job analysis is a systematic procedure to analyse the requirements for the job role and job profile. Glass door is a website and online platform that provides information about jobs, salaries, and companies. Job analysis is a systematic approach to defining the job role, description, requirements, responsibilities, evaluation, etc. It helps in finding out the required level of education, skills, knowledge, training, etc for the job position. It also depicts the job worth i.e. measurable effectiveness of the job and contribution of job to the organization. Thus, it effectively contributes to setting up the compensation package for the job position.

Lack of analysis of Glass door jobs can result in limited understanding of job market trends, difficulty in finding relevant job opportunities, inability to attract and retain top talent, and lack of insight into company branding and reputation.

### PURPOSE:

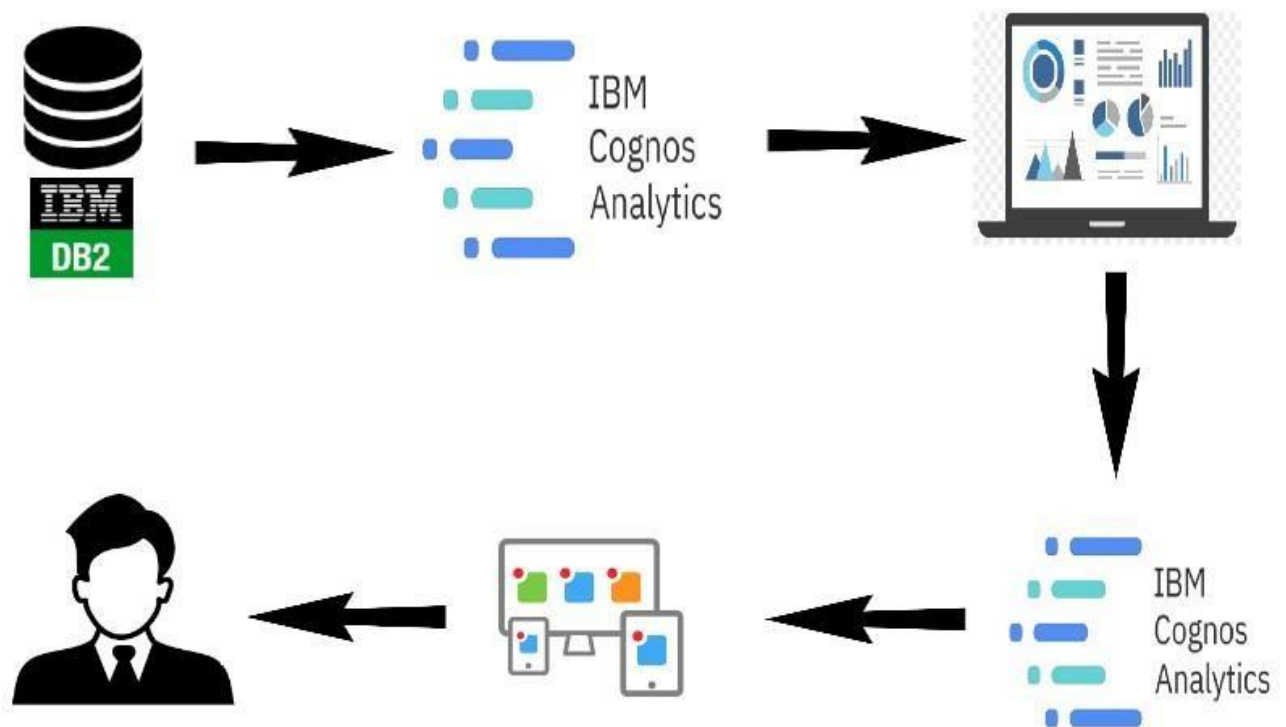
The purpose of this project is to conduct an analysis of Glassdoor job postings to gain insights into current and emerging job market trends, identify in-demand skills and experience, and understand how employers can improve their employer branding and reputation to attract and retain top talent.

## LITERATURE SURVEY:

A literacy survey for Data Analysis of Glassdoor Jobs involves reviewing multiple job roles in a particular domain offered by a particular organization belonging to a given industry and sector. Job analysis defines the organization of jobs within a job family. It allows units to identify paths of job progression for employees interested in improving their opportunities for career advancement and increasing compensation.

## THEORITICAL ANALYSIS:

### BLOCK DIAGRAM:



### SOFTWARE USED:

IBM CONGNOS ANALYTICS, ANACONDA, SPYDER, VSCODE, WAMPSEVER, IBM DB2.

### PROGRAMMING LANGUAGES USED:

PYTHON, HTML, CSS , EXPLORATORY DATA ANALYSIS , FLASK , INTEGRATION.

We have collected the dataset and uploaded in IBM CONGNOS ANALYTICS then we need to understand the data what are the contents involved in the data set and then we need to store the data in database. So that IBM CONGNOS ANALYTICS helps to store the data. Here we will be having data modules. These data modules can be based on servers, packages, files, datasets and many more.

We can visualize the data, store the data, create a dashboard, story, and also a report.

## OUTCOME:

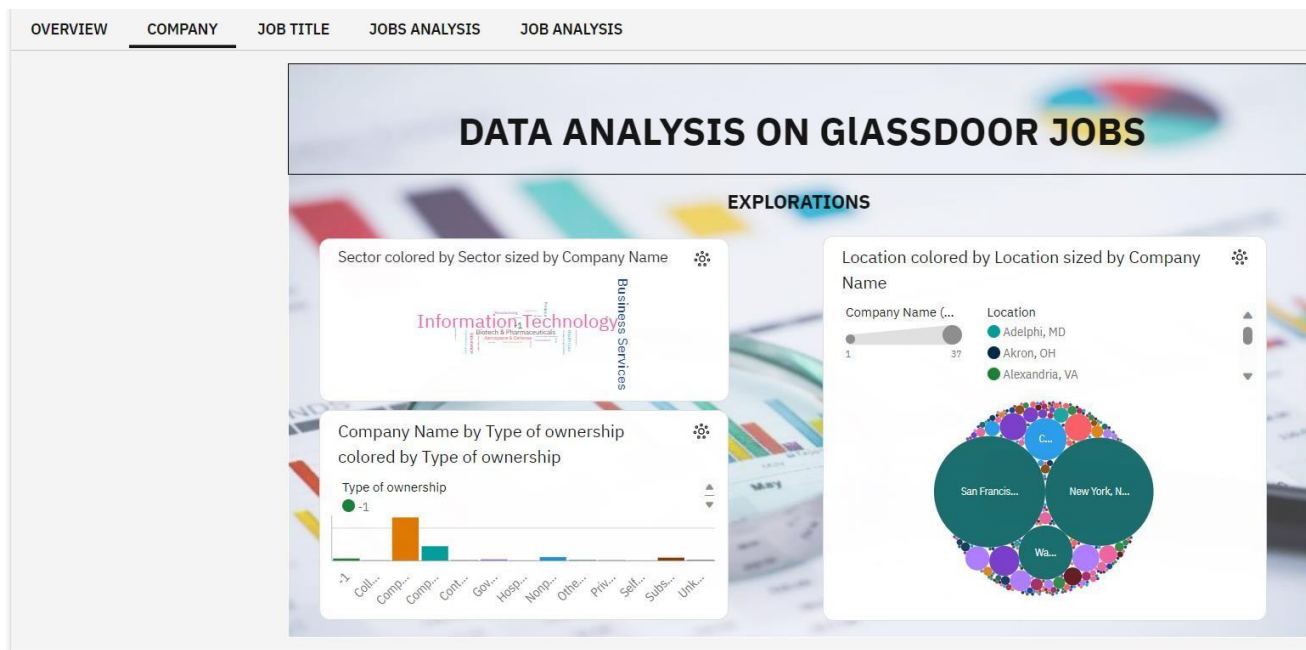
### RESPONSIVE AND DESIGN OF DASHBOARD:

The responsiveness and design of a dashboard for Data-Driven insights on Student Performance is crucial to ensure that the information is easily understandable and actionable. Key considerations for designing a responsive and effective dashboard include user-centered design, clear and concise information, interactivity, data-driven approach, accessibility, customization, and security. The goal is to create a dashboard that is user-friendly, interactive, and data-driven, providing actionable insights.

### DASHBOARD:

A dashboard helps you to monitor events or activities at a glance by providing key insights and analysis about your data on one or more pages or screens.

The main use of a dashboard is to show a comprehensive overview of data from different sources. Dashboards are useful for monitoring, measuring, and analyzing relevant data in key areas.



## DATA ANALYSIS ON GLASSDOOR JOBS

Number of Job Titles

168

Job Title

Number of Companies

425

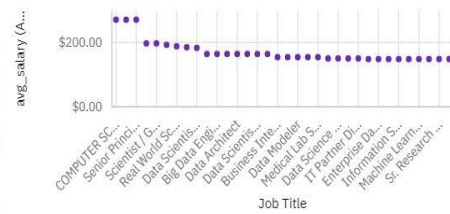
Company Name

Industry

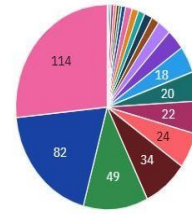
58

Industry

Average\_salary by Job Title

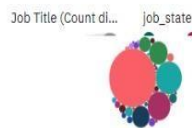


Company Name by Sector



## DATA ANALYSIS ON GLASSDOOR JOBS

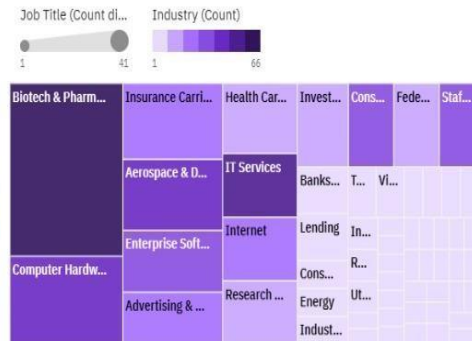
job\_state colored by job\_state sized by Job Title

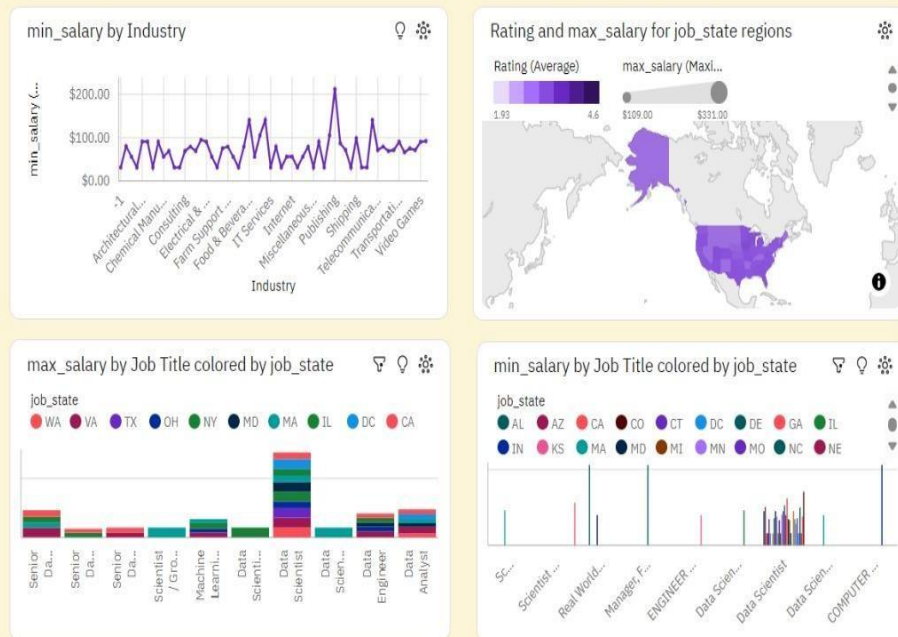


Rating by Job Title



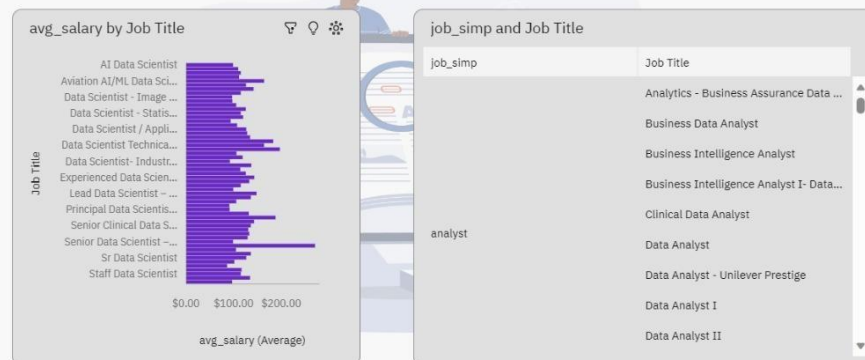
Industry hierarchy colored by Industry and sized by Job Title





## DATA ANALYSIS ON GLASSDOOR JOBS

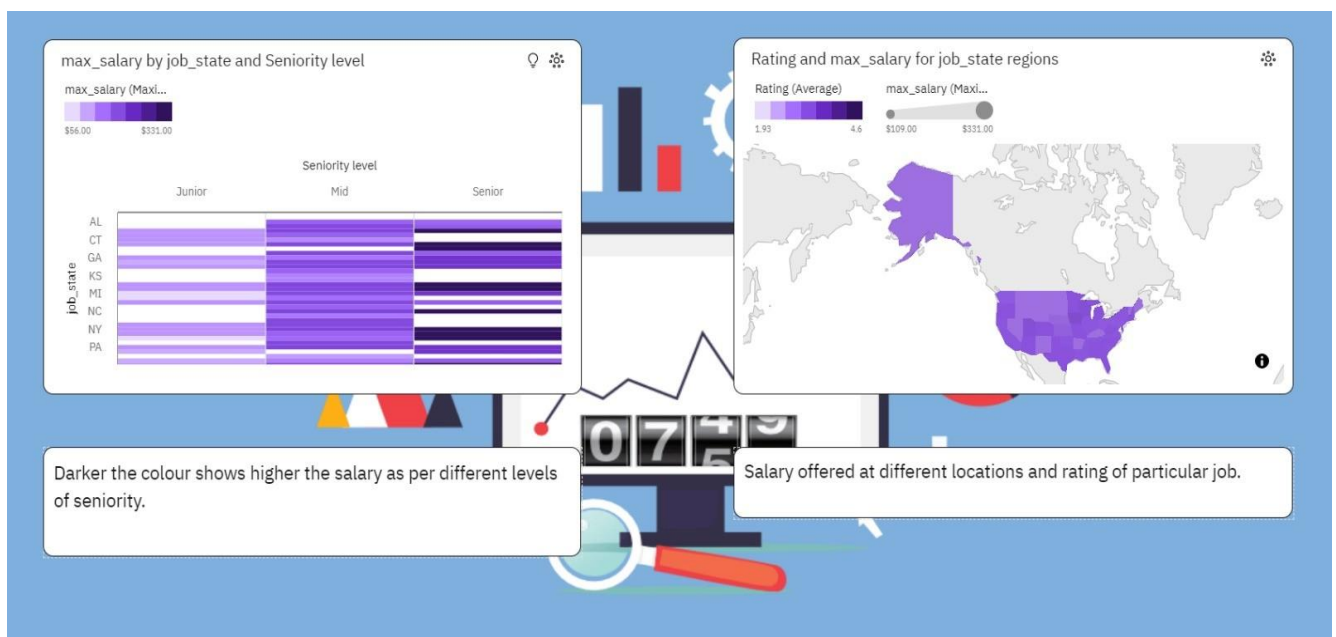
Data analysis is the process of evaluating data using analytical or statistical tools to discover useful information.



## STORY:

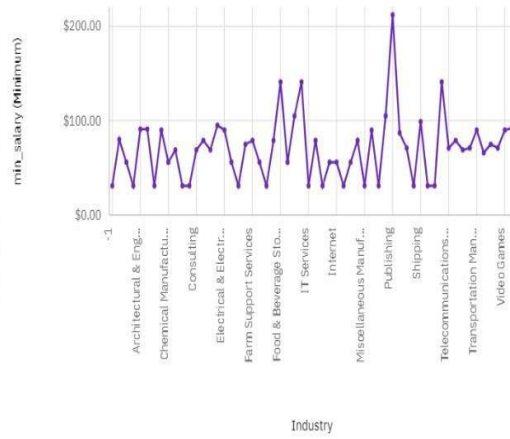
A story is a type of view that contains a set of scenes that are displayed in sequence over time

story is a collection of charts or dashboards assembled on multiple views. The views in a story are logically and linearly connected to convey the progression of a data story.

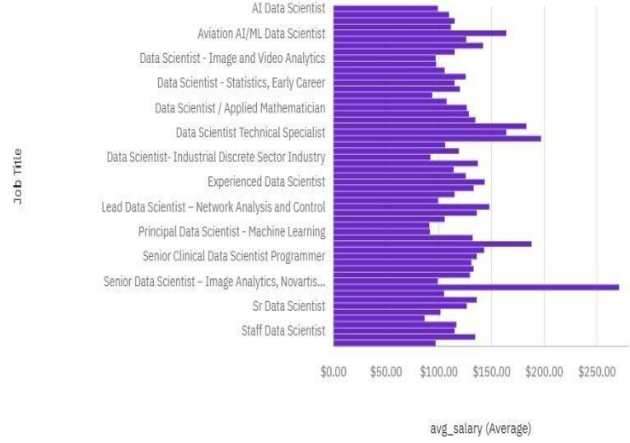




min\_salary by Industry



avg\_salary by Job Title

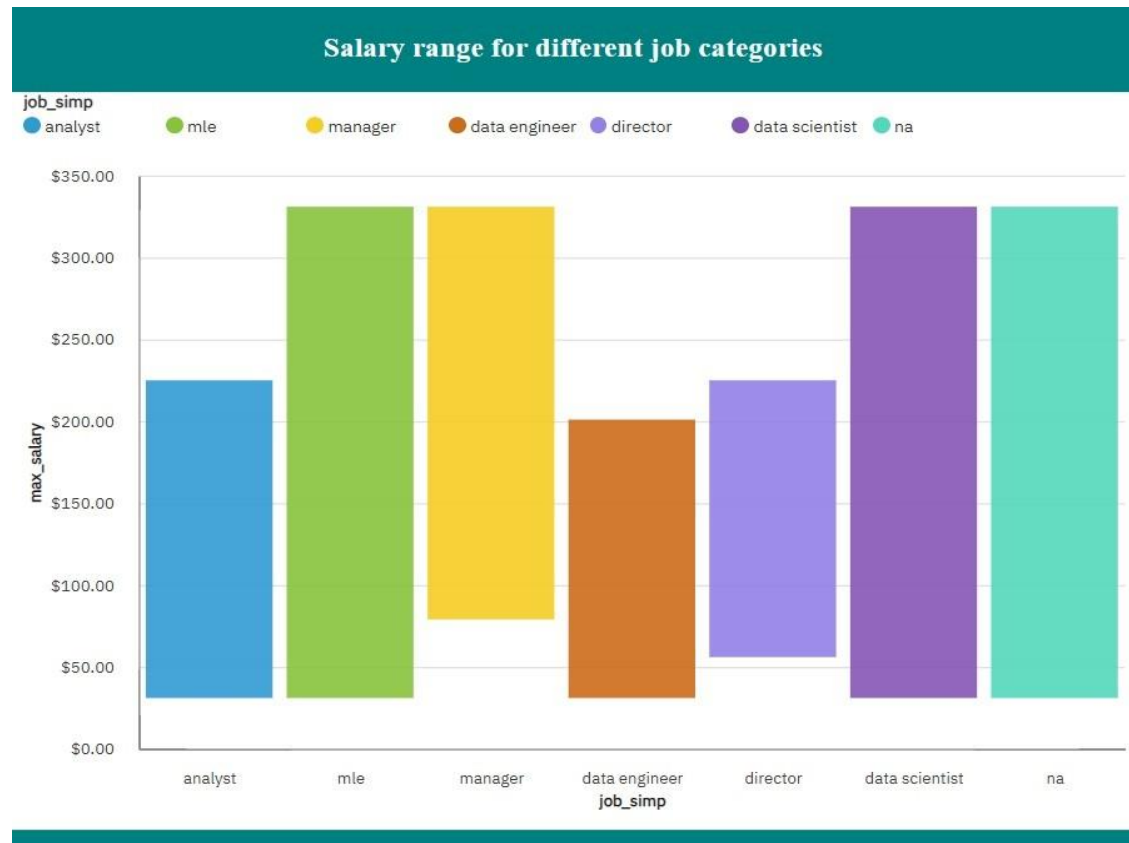


Salary trend as per the market standards.



## REPORT :

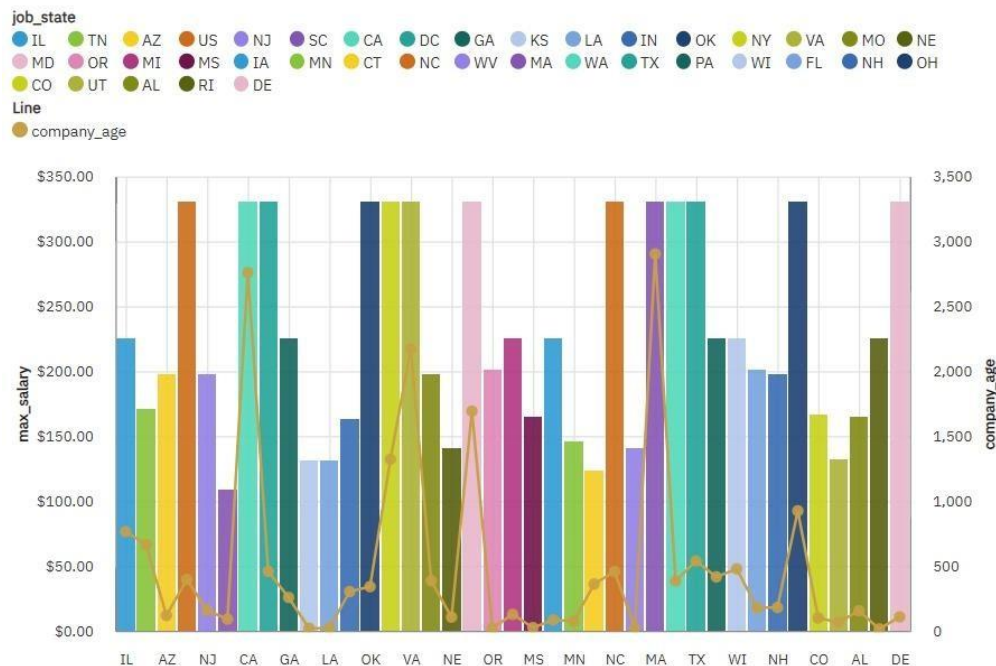
Reporting is a web-based report authoring tool that professional report authors and developers use to build sophisticated, multiple-page, multiple-query reports against multiple databases. List reports, crosstab reports, or charts.



### Analysing skills on the basics of different job titles

	excel	big_data	tableau	aws	hadoop	spark	python
Data Modeler	1	0	1	0	0	0	1
Data Scientist/Machine Learning	0	2	0	0	2	2	2
Data Analyst	10	1	7	0	1	1	9
Data Analyst I	0	0	0	0	0	0	0
Computational Scientist, Machine Learning	1	0	0	1	0	0	1
Product Data Scientist - Ads Data Science	0	0	0	0	0	0	2
Data Scientist - Intermediate	2	0	0	0	0	0	2
Global Data Analyst	1	0	1	0	0	0	0
Data & Machine Learning Scientist	0	0	0	2	0	0	2
Data Engineer (Remote)	1	0	0	1	1	1	1
Data Scientist, Applied Machine Learning - Bay Area	0	0	0	2	0	0	2
Purification Scientist	0	0	0	0	0	0	0
Data Scientist 3 (718)	0	0	0	2	0	0	2
Real World Science, Data Scientist	0	0	0	0	2	0	2
Data Scientist - Image and Video Analytics	0	0	0	2	2	2	2
Staff Data Scientist	0	0	0	0	0	0	0
RFP Data Analyst	1	0	0	0	0	1	0

### Max salary offered by companies at particular location in accordance with company age



## ADVANTAGES:

### *Social impact:*

This project can help job seekers make more informed decisions about their careers and negotiate for better compensation and working conditions. This can ultimately contribute to greater economic mobility and reduce income inequality.

### *Business Model/Impact:*

It can help to improve retention rates, reduce turnover costs, and increase productivity. An analysis of Glassdoor jobs can provide insights into what employees value most, helping employers to create a better work environment that attracts and retains top talent.

## DISADVANTAGES:

- It's difficult to analyse the big data
- Its time taking process
- Become complicated to who doesn't know about IBM, ANACONDA, PYTHON

## APPLICATION:

- Business
- Recruitment of students in different jobs as per their interest ○  
Job analysis

## CONCLUSION:

The future work for the data analysis of the Glassdoor jobs project holds promising opportunities for further exploration and improvement. With the wealth of data available on the platform, there are several areas that can be focused on to enhance the analysis and provide more valuable insights.

Firstly, incorporating machine learning algorithms and natural language processing techniques can help in extracting deeper insights from the job descriptions and reviews.

By analyzing the language used and identifying patterns, it is possible to gain a better understanding of the skills and qualifications required for different positions, as well as the overall sentiment associated with certain companies or industries.

Secondly, expanding the scope of the analysis beyond job postings and reviews to include other relevant factors such as salaries, benefits, and company culture can provide a more comprehensive view of the job market. This can involve incorporating data from other sources or integrating with APIs to gather additional information.

Furthermore, conducting comparative analysis between different industries, regions, or job roles can help in identifying trends and patterns, as well as highlighting areas of strength or areas for improvement. This can assist job seekers in making informed decisions and companies in benchmarking their offerings against industry standards.








Additionally, visualizing the data in meaningful and interactive ways can improve the usability and accessibility of the insights generated from the analysis. This can involve creating dashboards, interactive charts, or heat maps to enable users to explore the data and gain insights at a glance.

Lastly, continuously updating and maintaining the data analysis pipeline will be crucial for ensuring the accuracy and relevance of the insights. This includes regularly scraping new job postings and reviews from Glassdoor, cleaning and preprocessing the data, and re-running the analysis periodically to capture any changes or updates in the job market.

Overall, the future work for the data analysis of the Glassdoor jobs project holds immense potential in terms of uncovering valuable insights, providing actionable recommendations, and empowering job seekers and companies alike. By leveraging advanced analytical techniques and continuously improving the data analysis pipeline, the project can contribute to enhancing transparency and efficiency in the job market.

## **FUTURE SCOPE:**

The future scope of the data analysis of Glassdoor jobs holds immense potential and can be pursued in several directions. Here are some key areas that can be focused on:

-  **Predictive Analytics**
-  **Recommender Systems**
-  **Sentiment Analysis**
-  **Diversity and Inclusion Analysis**
-  **Skill Gap Analysis**
-  **Geographical Analysis**
-  **Social and Network Analysis**

Overall, the future work of data analysis of Glassdoor jobs offers numerous possibilities for enhancing the job search experience, improving transparency in the job market, promoting diversity and inclusion, and enabling data-driven decision-making for both job seekers and employers. By exploring these areas, it is possible to unlock valuable insights that can transform the way people find and evaluate job opportunity.

**Github link:** <https://github.com/SISRO7/The-Future-Of-Work-Data-Analysis-Of-Glassdoor-Jobs>

**Demo video:** <https://drive.google.com/file/d/1qhsk2pQPAX8QtoKmmXFpgPEo4BFiNMTr/view?usp=drivesdk>