# **PROJECT REPORT**

### THE FUTURE WORK DATA ANALYSIS OF GLASSDOOR JOBS

### 1.INTRODUCTION:

### 1.1. OVERVIEW:

Glassdoor launched its company ratings site in June 2008, as a site that "collects company reviews and real salaries from employees of large companies and displays them anonymously for all members to see", according the tyechcrunch. The company then averaged the reported salaries, posting these averages alongside the reviews employees made of the management and culture of the companies they worked for – including some of the larger tech companies like google and yahoo. The site also allows the posting of office photographs and other company-relevant media.

The site later also began focusing on CEOs and workplaces and what it is like to work at jobs in general. Employee reviews are averaged for each company. Glassdoor ratings are based on user-generated reviews. Each year Glassdoor ranks overall company ratings to determine its annual Employees' Choice Awards, also known as the Best Places to Work Awards. The website verifies that each review of a company comes from real employees "through technological checks of e-mail addresses and through screenings by a content management team", according to Glassdoor spokesman Scott Dobroski. The company has stated that it rejects about 20% of entries after screening. Rules for posting reviews are different for smaller companies than they are for larger companies in order to preserve the anonymity of people in close departments. In 2010, Glassdoor released a fee-based program called "Enhanced Employer Profiles", which allows employers to include their own.

## 1.2. PURPOSE:

- A platform like Glassdoor fits perfectly in line with SAP's global "tell it like it is" behavioral strategy. But with almost 90,000 employees comprised of over 130 nationalities worldwide, we had a large audience to communicate to about this platform. We knew many employees and managers around the world had never heard about Glassdoor and we would be sure to encounter some resistance when persuading some locations to encourage their employees to log on and leave a review. Therefore, we needed to be smart communicated the message and show them what the benefits of using Glassdoor are for all stakeholders.
- <u>For candidates</u>: Glassdoor offers candidates a chance to look for jobs and read authentic and transparent reviews from employees currently and formerly employed in an organization. Years ago, candidates could only find out what it was like to work at a company if they happened to know someone there.
- <u>For employees:</u> Staying in line with SAP's global "tell it like it is" behavioral strategy, employees are encouraged to leave a review on Glassdoor so they have a permanent channel to voice their opinions. We take all reviews seriously and are open to hearing what our employees have to say throughout the year.
- For HR & Management: An involved HR and management department who regularly monitors the company's performance on Glassdoor is setting itself up for success. Glassdoor allows employees to provide ratings and feedback for career opportunities, learning & development, senior management, compensation & benefits and company culture.

## • 2. <u>LITERATURE SURVEY</u>:

## 2.1. EXISTING PROBLEM:

- **Fake Reviews:** Glassdoor could have faced challenges in identifying and removing fake or biased company reviews, which could mislead job seekers. A possible solution could involve implementing stricter verification processes and encouraging users to provide more detailed and balanced feedback.
- Outdated Information: Job postings and company data might not have been updated regularly, leading to frustration for job seekers. To address this, Glassdoor could implement automated checks and alerts to keep listings current.
- <u>Limited Job Listings</u>: While Glassdoor had a substantial number of job postings, some industries or regions might have been underrepresented. Improving partnerships with more employers and expanding its reach could help provide a more comprehensive job database.
- <u>User Interface and Experience:</u> The platform's design and usability might have been a concern for some users. Regular updates to enhance the user interface and optimize user experience could have been proposed to maintain user engagement.

<u>Lack of Personalization:</u> Users might have faced difficulties in finding jobs that match their preferences or skillsets. Implementing better recommendation algorithms and enhancing the user profile section could address this issue.

### 2.2. PROPOSED SOLUTION:

<u>Improved Job Matching:</u> Enhance the job search algorithm to provide more accurate and personalized job recommendations based on a user's skills, experience, and preferences. Utilize machine learning techniques to refine search results and ensure better job matches.

<u>Transparent Verification</u>: Implement a more robust review verification system to identify and remove fake or biased reviews. This could involve employing Al-powered algorithms to detect suspicious patterns and encourage verified employees to share their feedback.

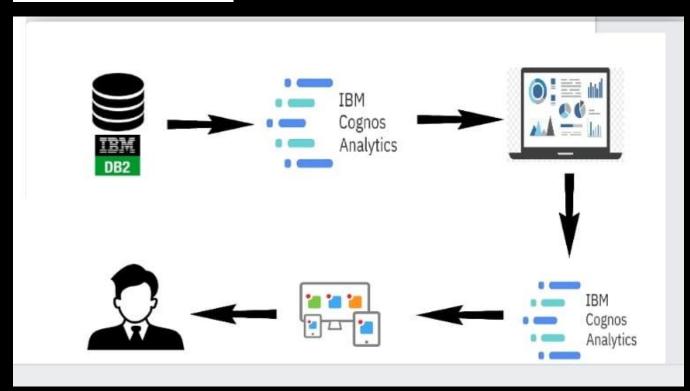
<u>Regular Data Updates</u>: Ensure job postings and company information are regularly updated to provide users with current and relevant data. Collaborate with employers to maintain accurate listings and remove expired or filled positions promptly.

<u>Enhanced Company Profiles:</u> Encourage companies to create comprehensive profiles with detailed information about their culture, benefits, and work environment. This could give job seekers a better understanding of potential employers.

<u>Mobile App Optimization:</u> Invest in improving the mobile app experience to accommodate the growing number of users who prefer to search for jobs on their smartphones. This includes optimizing the user interface for mobile devices and ensuring smooth navigation.

## **3.THEORETICAL ANALYSIS:**

### 3.1. BLOCK DIAGRAM:



## 3.2. Hardware/Software Designing:

**Functional Requirements:** Python Libraries: Numpy, Pandas, Plotly, Matplotlib, Seaborn, GeoPandas.

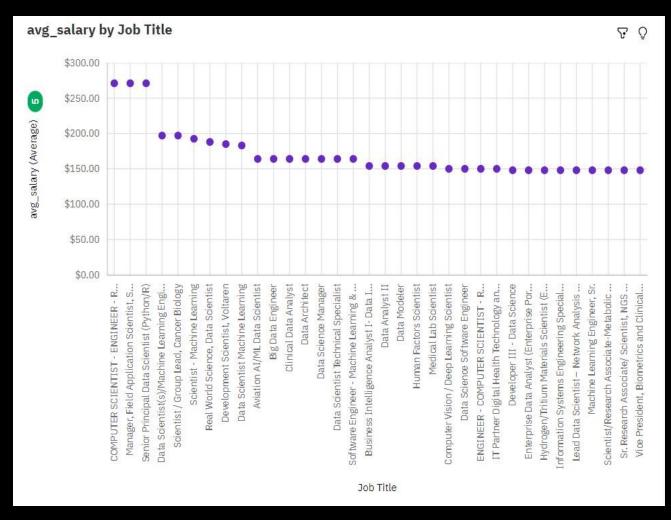
**<u>Development Environment</u>**: MS Excel, Pycharm, Jupyter Notebook.

**External Interface Required**: Google News API, Streamlit.

**Operating Environment:** MacOS, Windows. Deployment

Environment: Streamlit.

**Filter:** There are several ways that you can filter the data in a visualization. You can keep or exclude a few data points in the visualization. You can use the data tray to filter the data in several columns and the columns are not required to be in the visualization. You can also add a local filter to filter a column or to define a filter condition. You can filter the data that appears in all visualizations that use the selected data asset in the current tab of the dashboard or story. You can keep or exclude specific data points in a visualization. For example, an outlier makes it hard to see the other data points in the visualization.

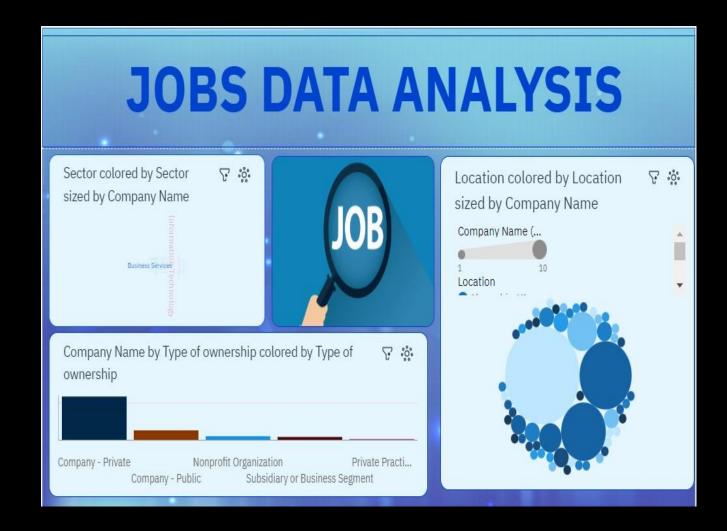


### **4.RESULTS:**

IBM generated annual net income of \$5.6 billion on revenue of \$73.6 billion in 2020.4 It has a market capitalization of \$125.3 billion as of July 13, 2021. It currently operates through five business segments: Cloud & Cognitive Software, Global Business Services, Global Technology Services, Systems, and Global Financing.

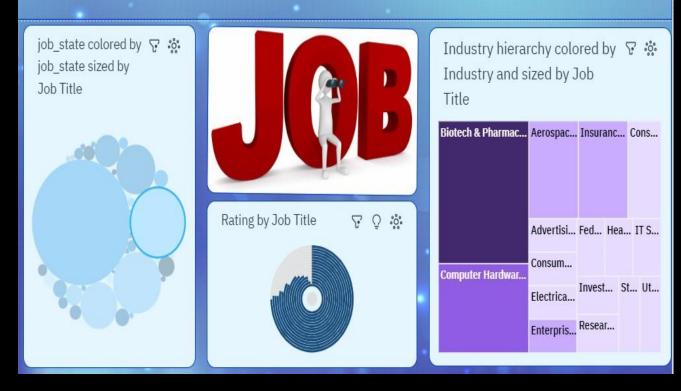


The company was acquired by IBM in 2008 for \$4.9 billion. At the time, IBM's intention in acquiring Cognos was to accelerate its cross-company Information on Demand strategy, unlocking the business value of information through information integration, content and data management, and business consulting services.



IBM India Private Limited is the Indian subsidiary of IBM. It has facilities in Ahmedabad, Bengalure, Bhuvaneshwar, Chennai, Coimbato re, Delhi, Gurgaon, Kochi, Hyderabad, Kolkata, Mumbai, Noida, Pune, Mysore and Visakhapatnam. IBM is very secretive about the geographic distribution of its employees. By most estimates, it has close to a third of its 288,000 employees (~ 100,000) in India, and it likely has more employees there than in the US.

# **JOBS DATA ANALYSIS**



The designation Hierarchy can vary based on the department like HR, Finance, Research, Marketing, etc... To keep it simple, this article only discusses the technical Hierarchy of the IT or Technical personnel in IBM.

It is an American multinational technology corporation headquartered in Armonk, New York, with operations in over 171 countries. The employee strength is 4,00,000 (2022)

It was founded in 1911 in Endicott, New York, by Charles Ranlett Flintas, as the Computing-Tabulating-Recording Company (CTR) and was renamed "International Business Machines" in 1924.

As on today, it is the best global technology company that offers hardware, software, and cloud-based applications for both business and scientific research.

#### **JOBS DATA ANALYSIS** job\_simp and Job Title max\_salary by Job Title colored by job\_state 0 :0: Job Title job\_simp AL AZ Analytics - Busines... Business Data Anal... analyst Real World Scien... ENGINEER - COM... Data Scientist COMPUT... Scientist /... Rusiness Intelligen Scientist - Mach... Manager, Field A... Data Scientist(s... Data Science Sof... min salary by Industry 0 :0: avg salary by Job Title colored by Location ₽ O %

enior Data... Senior Data Ana... Machine Learni... Data Scientist

Senior Data Eng... Scientist / Gro... Data Scientist (... Data Science So...

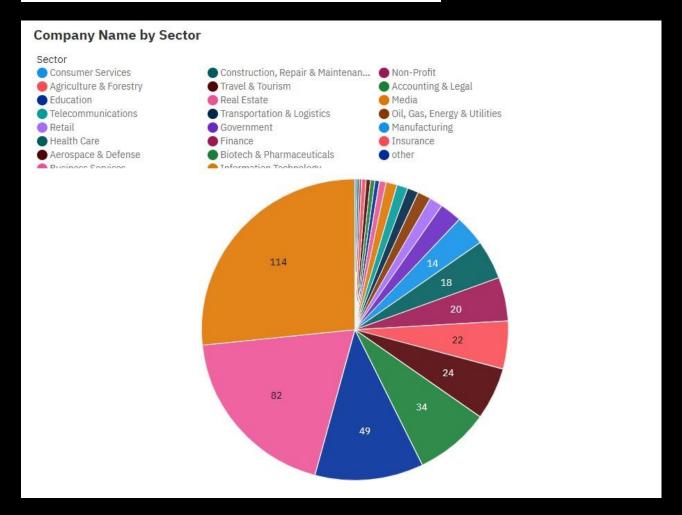
Data Engineer

Data A...

The average salary for someone who works in the sharing economy application sector is about \$91000. This surprisingly high salary does have room to grow with time and experience. Even entry-level data analysts usually make about \$70,000 or more per year in this industry.

Many sharing economy services are based on mobile applications that receive funding from venture capital firms or private investors which fuel their success. Their most valuable assets are their data and software talent, and this is reflected in the high salaries. It's likely that you'll get some great benefits from these companies as well.

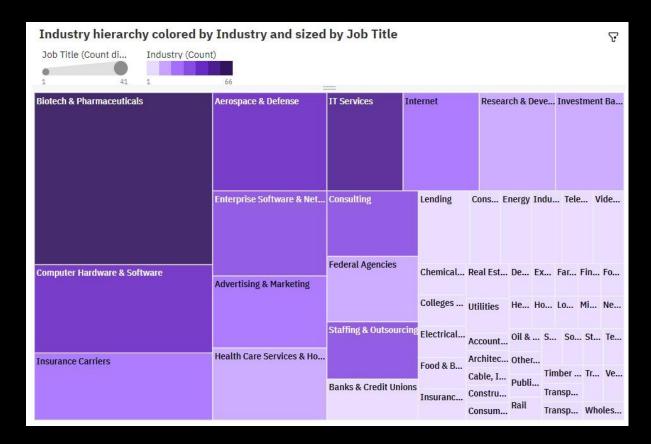
## **COMPANIES NAME BY SECTOR:**



Manufacturing has been a significant contributor to the Indian economy. The manufacturing sector in India grew at 5% of CAGR value in financial year 2020 as per the Government of India statistics. The manufacturing sector contribution to the Gross value add i.e, GVA was US\$ 397.14 billion in year 2021.

The total foreign direct investments received by the manufacturing sector in India in April 2020 to March 2020 was US\$ 89.40 billion. Government of India increased FDI in defence manufacturing under the automatic route from 49% to 74% during May 2020.

## **INDUSTRY HIERACHY:**



The IBM Industry Models business terms are organized in hierarchies using the Is A Type Of/Has Types relationship. The hierarchies of primary and secondary terms support a taxonomy of business terms according to one or more viewpoints defined as classifier terms. The hierarchy of aggregate terms indicates the decomposition hierarchy of an aggregate term, based on the formula used to calculate it.

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## **5. ADVANTAGES & DISADVANTAGES:**

## 5.1. ADVANTAGES:

Glassdoor provides a comprehensive platform for job seekers to search for job opportunities across various industries and regions. It also offers company reviews and ratings from current and former employees, providing valuable insights into an organization's work culture, management, and overall employee satisfaction.

## **5.2. DISADVANTAGES:**

Glassdoor may not always be able to verify the authenticity of all reviews, which could lead to the presence of fake or biased reviews. This can mislead job seekers and affect the platform's credibility.

# **6. APPILICATIONS:**

<u>Job Market Research:</u> Glassdoor's database of job listings and company reviews can be used for conducting research on job market trends. Analysts can examine the demand for certain skill sets, salary trends, and job satisfaction levels across various industries and geographic locations.

**Salary Benchmarking:** Glassdoor provides salary information for different job titles and locations. This data can be used by individuals to benchmark their own salaries and negotiate better compensation packages.

<u>Recruitment Strategies</u>: Companies can use the insights from Glassdoor to refine their recruitment strategies. By analyzing employee reviews and feedback, employers can identify areas of improvement in their hiring processes, company culture.

**Employer Branding:** Glassdoor is a platform for employees to share their experiences working for a company. Employers can analyze the reviews to understand their reputation in the job market and identify areas for improvement. Positive reviews and testimonials can be highlighted to enhance employer branding and attract potential candidates.

<u>Talent Acquisition:</u> Glassdoor's job listings and company profiles can be used by recruiters and HR professionals to identify potential candidates. By analyzing job descriptions, required qualifications, and company reviews, recruiters can find suitable candidates who align with the company's values and requirements.

## 7.CONCLUSION:

- Glassdoor has emerged as a popular resource for individuals looking to gain insights into company cultures, salaries, and employee reviews. Its vast database of company profiles, ratings, and reviews has empowered job seekers to make more informed decisions about potential employers.
- Furthermore, employers can use the platform to better understand their employees' perspectives and make necessary improvements to enhance their work environments.
- The platform's transparency and focus on user-generated content have played a crucial role in shaping how companies are perceived by the public and potential candidates
- Overall, Glassdoor has had a significant impact on the job market by providing a valuable resource for job seekers and employers alike, contributing to a more transparent and informed job search process.

## **8. FUTURE SCOPE:**

Our Project contains some imperfections and weaknesses. We plan to overcome some of these weaknesses in future answers see these limitations as future scope. These are:

Glassdoor jobs have a promising future scope due to increasing demand, opportunities for enhanced employer branding, improved data insights, integration with AI and machine learning, international expansion, and other factors.

The future scope of jobs can vary based on economic conditions, technological advancements, and societal changes. It's essential to regularly check the latest job trends and industry forecasts to understand the future job landscape.

By staying ahead of the competition and continuously improving its services, Glassdoor can remain a goto platform for job seekers and employers alike.