BUSINESS INTELLIGENCE:

- Integrating technologies that generates data to enhance an organization outcomes by excellent decisions making.

BUSINESS INTELLIGENCE TOOLS:

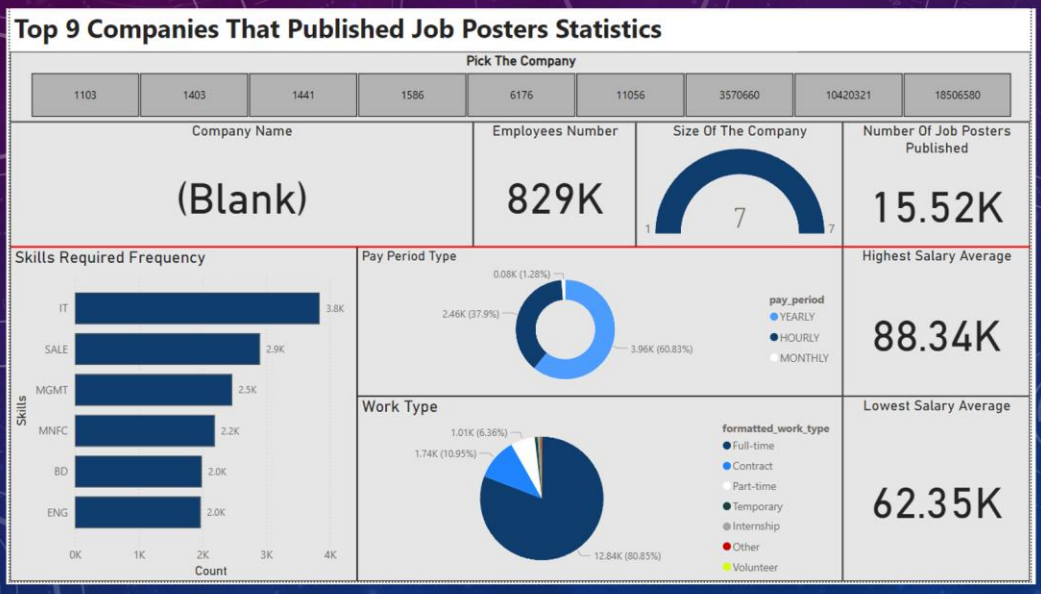
Power BI: Offers a complete features to create dashboards and operations that are user-friendly and easy to learn.

Tableau: handles larger volume of data and able to create more complex visualizations for deep analyzing.

BUSINESS INTELLIGENCE TECHNIQUES

- Charts: Using visualization plots to represent useful insights
- Mathematical Operations: Such as average and summation.
- Reporting: Page that includes multiple charts that helps to take decisions.

EXAMPLES

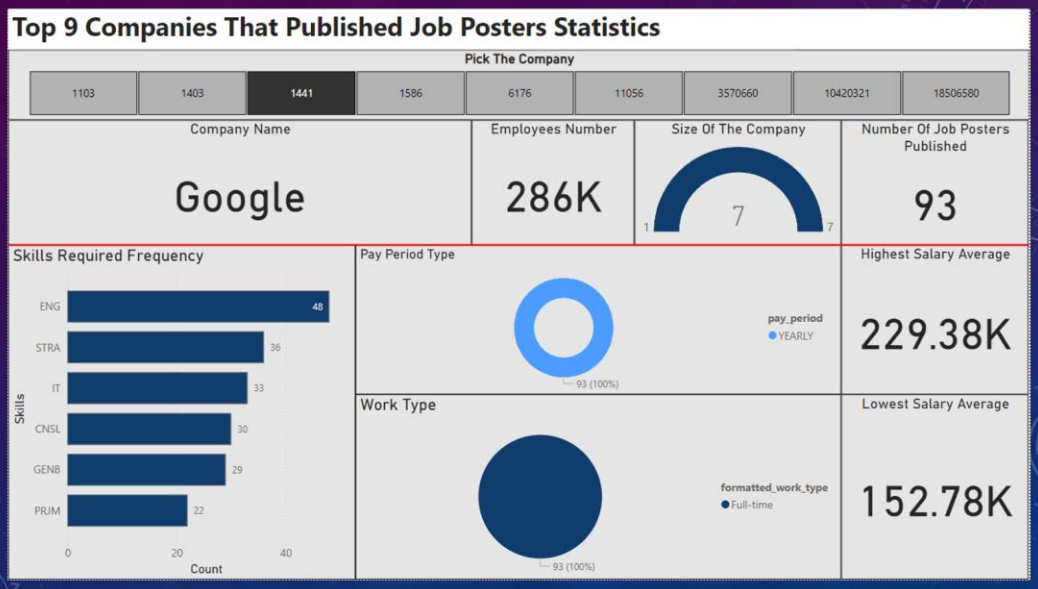


MY SYSTEM

Visual most 9 companies that published job posters.

Helps users to know what these companies are in terms of their name, employee numbers and how many job posters they have published.

Helps users to know what these companies ask the most in terms of skills, contract type, payment type and their offered high and low salary averages.



Basic information related to the companies:

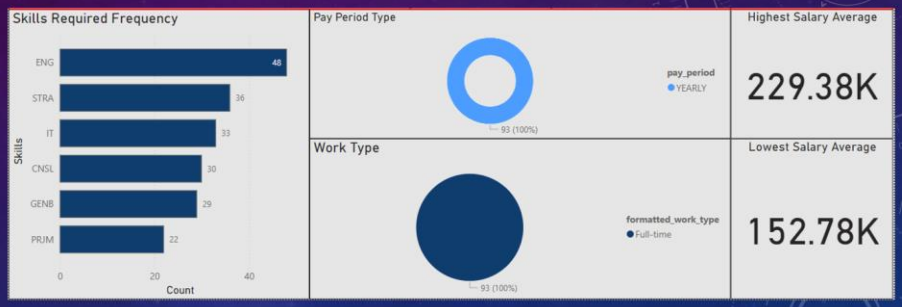
- Filter to pick a company.
- The company name.
- The Number of employees work in the company.
- The size of the company.
- Job posters number that the company has published.

Cards charts is designed to represent a specific information. In this report, it is used to determine the company name, the number of employees work in the company and the number of job posters published by the company.

Gauge chart is designed to determine the level of completion a task. In this report, it is used to determine the size of the company scaling from 1 to 7.

Important information for users:

- Skills required frequency.
- Pay period type percentage.
- Work type percentage.
- Highest salary average.
- Lowest salary average.



Bar chart is designed to compare multiple categories frequent within the data. In the system, it shows how many top 6 skills were asked for within the job posters that have been published.

Donut and Pie chart are designed for comparing multiple categories. Each category takes a slice of the circle with the size of the slice proportional to its value in the data. In the system, it represents the percentage of work and pay period types.

SYSTEM BENEFITS

- Gives users a better understanding of companies.
- Shows how much salary range companies would offer.
- Shows what the most required skills are within companies job posters.
- Shows the payment period that companies prefer to offer whether it is yearly, monthly or hourly.
- Shows the contract type whether companies prefer to have part or full timers employees.

SYSTEM WEAKNESSES

The filter has companies IDs from the collected dataset, and users would have to randomly pick from the filter to get their desired company.

The filter consists of only 9 companies that are already published the heights number of job posters which is not ideal for an application to put a very small number of companies. In addition, not supporting real time data since there might be other companies publishes more during time.

Limited filters since there are users who prefer to filter the dashboard according to their skills.

The main problem from the design is the filter since it is impractical in real world applications. Enhancing this point would make the system a strong helpful application to be used by users.

WALMART STORY: BUSINESS INTELLIGENCE APPLICATIONS

Walmart is multinational retails such as Amazon.

They apply business intelligence on various sectors such:

Inventory Management: By ensuring favorable items never be out stocked and non-favorable items won't be over stocked by benefiting from historical data from customer, sales, seasonal changes, customer preferences and market trends.

Supply Chain: where inefficient delivering schedules may lead to delays, costs and unsatisfied customer experiences. By analyzing insights in transportation routes, inventory management and supplier performance, Walmart optimizes their systems on delivering products to customers in less time which by that increasing in customer satisfaction and prevent higher costs.

Personalized Experiences: To enhance customer experiences and gain their trust and loyalty, Walmart utilize customers data to make sales recommendations. Thus, Walmart recommend products based on customers interests. In addition, Walmart offers on the products that align with customers preferences.

SPOTIFY STORY: BUSINESS INTELLIGENCE APPLICATIONS

Spotify is Music Streaming Platform that offers listening to music and songs services.

They use algorithms for their users for a strong recommendation systems which is considered the best out of all other music streaming platforms.

They use advanced business intelligence and analysis tools by collecting their listening data and providing them a playlist of recommended music that they most likely will satisfy and enjoy them.

As a result for that, the music market dominated by Spotify with a share over 30% which is the highest in music market.

LEGAL ISSUES

- **Data Privacy Compliance:** After Collecting data, organizations handles personal information especially for recommendation systems. Thus, organizations must follow general data privacy compliance regulations and rules which state that collecting storing and using data only for purposes and tasks that align with the regulations such as General Data Protection Regulation.
- **Intellectual Property:** When organizations wants to use analytical models, they must have appropriate licenses and the permission of users to collect their data such as Spotify organization where it asks users that if they wish to have personalized music, Spotify has the collect their data with a promise that the data is safe.
- **Potential Legal Challenges:** Organizations must protect data at all cost. sometimes, data breaches could lead to doomsday for organizations if it contained sensitive data. Therefore, organizations must have safeguard measures for protecting data.

BENEFITS THAT LEADS TO MORE SUCCESS

- **Enhanced Decisions:** Decisions will be supported by insights that will support decision makers to call the proper decision for a specific matter with help of the data science.
- **Trends Detection:** Knowing markets trends would help organizations to follow a path where it matches the trends happening which could lead to more profits.
- **Processes Understanding:** The processes that are done within organizations can be monitored and evaluated which by that it could lead to understand what processes that influenced the organization more and take proper decision to increase profits and decrease risks potentials.

BENEFITS THAT LEADS TO MORE SUCCESS

- **Risks Preventions:** By understanding what is going on within organizations and have insights about their activities and processes, organizations can detect risks that might lead to more losses in the future. So, a decision would be called based on that situation which would help organizations to prevent future risks.
- **Machine Learning Algorithms:** Collecting customers data would make organizations able to create personalized systems that would increase customers satisfaction, intangible profits such as reputation and more profits. In addition, customers will favorite organizations that do a great job for their satisfaction and great recommendation systems.

INCREASING TARGET AUDIENCE FOR WALMART

- Customer satisfaction and loyalty is increasing because of the business intelligence they use by managing the inventory where favorable items are always in stock and low waiting time for delivering packages which results in keeping the customer loyal for the market. Thus, keep customers loyalty and obtaining intangible profit which is wider and better reputation at multinational retails market.
- With personalized shopping for customers, they might buy multiple items at once which results in increasing Walmart's profit.
- From these insights, Walmart offers discounts on personalized items for customers based on their preferences.
- Reduce time of delivery and its costs for trucks and cars that deliver the packages.
- All of these can be performed when having data. Additionally, they aims to enhance the profit whether tangible (money) or intangible (customer satisfaction and better reputation).

INCREASING TARGET AUDIENCE FOR SPOTIFY

- They have one of the greatest personalized algorithm that made them the best at music streaming industry. Therefore, more customers will be loyal for Spotify since customers are taking full benefits from the money they spend in subscriptions. Thus, keep customers loyalty and obtaining intangible profit which is reputation which is wider and better reputation at music streaming market.
- Offers premium playlists of music that are more personalized for users.
- Spotify uses techniques that make users keep using Spotify to listen to more music. Which is an advantage for their service which makes them competitive and dominant in the music market industry.

REPUTATION FOR INCREASING TARGET AUDIENCE

- All organizations make a trade-off on spending money for intangible profits such as reputation.
- Reputation is an important aspect for any organization.
- A study conduct statistical information that explains the following:
  - 85% of consumers have trust on online reviews and feedback about an organization service or products.
  - 90% of consumers admitted that their buying decision influenced from online reviews and feedbacks.
  - Good news take more time to spread out to the public. Unlike bad news where people prefer to tell a bad experience rather than a good experience

Therefore, reputation will indeed increase organizations target audience.

ORGANIZATIONS COMPETITIVENESS

- Getting benefits of business intelligence applications can make an organization competitive in the industry.
- By conducting the proper decisions from analyzing the generated data.
- even if these decisions only increased the profit of a company by 1%, it is a progress since decisions may differ without business intelligence which may conduct to a decreasing in the profit.
- All organizations within the same industry often give the same product or service. However, few changes only that make an organization special and unique. Such as Spotify, while mostly all music streaming applications have personalized algorithm, but nothing competing with Spotify personalization for customers.
- With the aid of business intelligence, the decisions of an organization are based on evidences and studied before taking the actions.
- Therefore, more chances to be unique and special than other organizations, more profit and avoiding risks.

SECURITY LEGISLATION INTO CONSIDERATION

- All organizations must follow laws of data privacy compliance such as general data protection regulation.
- Protect data at all cost since it contains sensitive information that can ruin an organization if got leaked.
- Ask for customers permission to create a personalized services.