

# Data Analytics Use -Cases



# Data Analytics Use Cases

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## Usecase-1:

### **Analytics For Hospitals** **Health -Care Data**



- The COVID-19 pandemic has resulted in uncontrollable havoc. Since this was an unexpected circumstance, many local hospitals were not prepared to handle this crisis.
- The proper allocation of resources has become a tough challenge for hospitals. There is a possibility that many patients may not get proper treatment.
- It created an urgent need for data analytics in the healthcare industry for Analysis of the current situation in terms of patient condition and hospital resources can help in the organized planning of any future waves of the pandemic.



## Usecase-1:

# Analytics For Hospitals Health -Care Data



### Social Impact

- Access to primary healthcare, Less Casualty.

### Business Model/Impact

- Pharmacy companies will sell their medical products to generate more revenue.
- Insurance companies will sell their health policies to needed people.

### Existing Solutions

- <https://www.boldbi.com/dashboard-examples/healthcare>
- <https://www.orangemantra.com/industries/healthcare/>

### Recommended Technology Stack

- Cognos Analytics, Tableau, Data Analysis with Python, Power-BI, etc.

### References

- [https://www.researchgate.net/publication/348834045\\_Development\\_of\\_the\\_Health\\_Information\\_Analytics\\_Dashboard\\_Using\\_Big\\_Data\\_Analytics](https://www.researchgate.net/publication/348834045_Development_of_the_Health_Information_Analytics_Dashboard_Using_Big_Data_Analytics)

## Usecase-2:

### Airlines Data Analytics For Aviation Industry



- Air travel has been increasingly preferred among travelers, mainly because of its speed and in some cases comfort. This has led to phenomenal growth in air traffic and on the ground.
- An increase in air traffic growth has also resulted in massive levels of aircraft delays on the ground and in the air. These delays are responsible for large economic losses.
- It's important to provide better Airline and AirPort services and avoid delays in Air Travel across different locations and promise to get passengers from Location A to Location B on time.

## Usecase-2:

# Airlines Data Analytics For Aviation Industry



### Social Impact

- Air transports provide significant economic and social benefits

### Business Model/Impact

- Ease of trade for businesses having business-to-consumer (B2C) model such as e-commerce
- Air transport is a driver of global trade and e-commerce, allowing globalization of production.

### Existing Solutions

- <https://www.id1.de/awall/>
- <https://www.cirium.com/products/views/dashboard/>

### Recommended Technology Stack

- Cognos Analytics , Tableau, Data Analysis with Python, Power-BI,etc.

### References

- <https://www.ramco.com/blog/aviation/how-can-data-help-aviation-industry>



## Usecase-3:

### Data Analytics For DHL Logistics Facilities



- Logistics services are the value chain that links the manufacturer to the consumer.
- Logistics are being transformed through the power of data-driven insights. This data-driven approach is helping to make logistics activities smarter, faster, and more efficient.
- DHL is an international Umbrella brand and trademark for the courier, package delivery, and express mail service.

## Usecase-3:

# Data Analytics For DHL Logistics Facilities



### Social Impact

- Economic growth of country ,Provides Employment

### Business Model/Impact

- Selling services to others MSME.
- Insurance companies can provide coverage for shipments

### Existing Solutions

- <https://www.datapine.com/logistics-analytics>
- <https://www.heavy.ai/industry/logistics>

### Recommended Technology Stack

- Cognos Analytics , Tableau, Data Analysis with Python, Power-BI,etc.

### References

- <https://www.okestrasc.com/blogs/importance-of-analytics-in-supply-chain-and-its-growth>



## Usecase-4:

### Retail Store Stock Inventory Analytics



- Retail inventory management is the process of ensuring you carry products that shoppers want, with neither too little nor too much on hand. By managing inventory, retailers meet customer demand without running out of stock or carrying excess supply. Inventory management is vital for retailers because the practice helps them increase profits.
- They are more likely to have enough inventory to capture every possible sale while avoiding overstock because Too much inventory means working capital costs, operational costs, and a complex operation.
- Based on the inventory management analysis we can manage how much inventory is required for selling the product based on which they can calculate the profit & losses.

## Usecase-4:

# Retail Store Stock Inventory Analytics



### Social Impact

- Customers will get more varieties, High availability of the products

### Business Model/Impact

- Improve the decision-making process oriented at reducing costs and increasing revenues.
- Retailers are able to understand the deepest customer needs and adjust their offering to meet shoppers' demands.

### Existing Solutions

- <https://mybillbook.in/inventory-management-software>
- <https://www.zoho.com/in/inventory/>

### Recommended Technology Stack

- Cognos Analytics , Tableau, Data Analysis with Python, Power-BI, etc.

### References

- <https://www.yourarticlelibrary.com/retailing/inventory-management-in-retail-store/48143>

## Usecase-5:

### Global Sales Data

### Analytics



- Sales refers to all activities involved in selling a product or service to a consumer or business.
- It is important for sales and marketing teams to review their strategies and performance in order to make improvements. One way to measure performance is with sales analytics.
- Sales analytics refers to the use of technology to collect and use sales data to derive actionable insights. It is used to identify, optimize, and forecast sales. It uses different metrics and KPIs to plan an efficient sales model that generates higher revenue for the business.



## Usecase-5:

# Global Sales Data Analytics



### Social Impact

- Perception of Price Inflation

### Business Model/Impact

- Grow Sales and Improve Processes, Low chances of customer churn.

### Existing Solutions

- <https://www.fieldproxy.com/>
- <https://www.glew.io/>

### Recommended Technology Stack

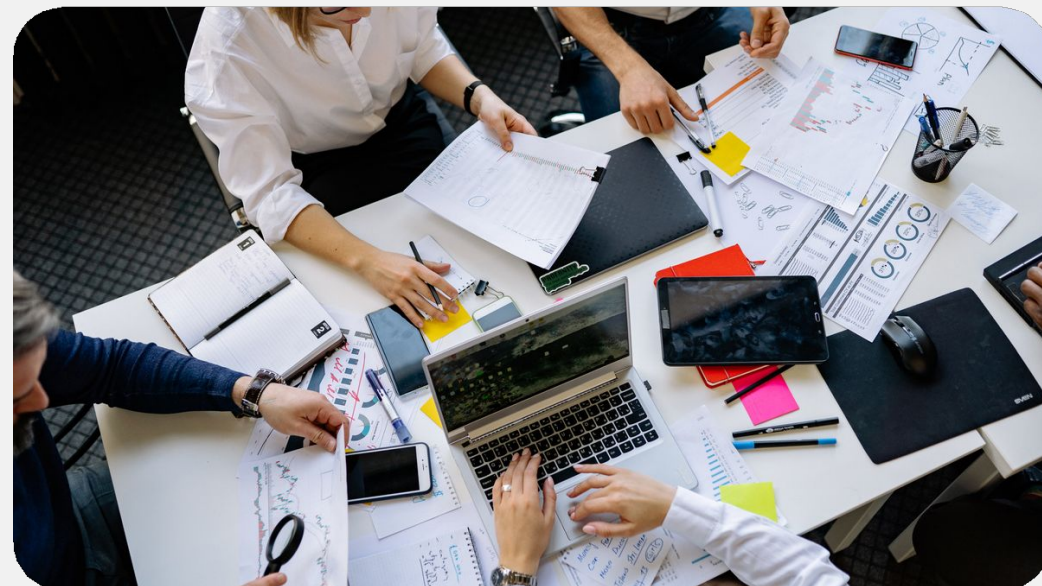
- Cognos Analytics, Tableau, Data Analysis with Python, Power-BI, etc

### References

- <https://www.zendesk.com/in/blog/guide-sales-analytics/>

## Usecase-6:

# Corporate Employee Attrition Analytics



- Every organization wants its valuable employees to be a part of its organization for a long period. Still, when many employees start leaving, it will be a concern for the organization. The key to success for any organization is attracting and retaining top talent. One of the key tasks is to determine which factors keep employees at the company and which prompt others to leave. It's more cost-effective to keep the employees a company already has.
- A company needs to maintain a pleasant working atmosphere to make their employees stay in that company for a longer period. To reduce the cost of attrition, organizations need to ensure that employees' aspirations are met.

## Usecase-6:

# Corporate Employee Attrition Analytics



### Social Impact

- Retention of good employees

### Business Model/Impact

- Organization can use this tool to manage the team.
- Reduction in Hiring Cost.

### Existing Solutions

- <https://leena.ai/>
- <https://www.empuls.io/employee-retention-software/>

### Recommended Technology Stack

- Cognos Analytics, Tableau, Data Analysis with Python, Power-BI, etc.

### References

- <https://www.aihr.com/blog/employee-attrition/>



## Usecase-7:

### Visualizing And Predicting Heart Diseases With An Interactive Dashboard



- Heart disease (HD) is a major cause of mortality in modern society. Medical diagnosis is an extremely important but complicated task that should be performed accurately and efficiently.
- Cardiovascular disease is difficult to detect due to several risk factors, including high blood pressure, cholesterol, and an abnormal pulse rate.
- Based on the analytics we can analyze which patients are most likely to suffer from heart disease in the near future and based on the patient details we will take decisions to cure them.

## Usecase-7:

# Visualizing And Predicting Heart Diseases With An Interactive Dashboard



### Social Impact

- Save lives, Health Monitoring

### Business Model/Impact

- Generate Revenue by selling dashboards to Hospitals ,Diagnostics & Clinical centers.
- Smartwatch companies can use this dashboard as an application.

### Existing Solutions

- <https://www.readmyecg.co/>
- <https://www.fitbit.com/global/us/technology/health-metrics>

### Recommended Technology Stack

- Cognos Analytics, Tableau, Data Analysis with Python, Power-BI, etc.

### References

- <https://www.healthline.com/health/heart-disease/tests-diagnosis>

## Usecase-8:

### **Estimate The Crop Yield Using Data Analytics**



- Crop production in India is one of the most important sources of income and India is one of the top countries to produce crops.
- Where Digital Farming and Precision Agriculture allow precise utilization of inputs like seed, water, pesticides, and fertilizers at the right time for the crop for maximizing productivity, quality, and yields.
- Most of farmers practice traditional farming patterns to decide on crops to be cultivated in a field. Based on analytics farmers can take better decisions for healthy crop production.



## Usecase-8:

# Estimate The Crop Yield

## Using Data Analytics



### Social Impact

- Extreme weather events, such as periods of high temperature, heavy storms, or droughts, can severely disrupt crop production.

### Business Model/Impact

- Increasing innovation and productivity.
- Reducing waste and improving profits.

### Existing Solutions

- <https://www.agremo.com/>
- <https://khetibuddy.com/farming/>

### Recommended Technology Stack

- Cognos Analytics, Tableau, Data Analysis with Python, Power-BI, etc.

### References

- <https://intellias.com/how-to-encourage-farmers-to-use-big-data-analytics-in-agriculture/>

## Usecase-9:

### Traffic And Capacity Analytics For Major Ports



- The Indian Railways has a capital base of about Rs. 1 lacs crores and is often referred to as the lifeline of the Indian economy because of its predominance in the transportation of bulk freight and long-distance passenger traffic.
- Port-rail connectivity is a strategic element of port development, both in economic and competitive terms and to reduce negative externalities on people and the environment.
- Data analytics can help reducing the congestion on rail corridors and improving port connectivity.



## Usecase-9:

### Traffic And Capacity

### Analytics For Major Ports



#### Social Impact

- Adequate resources will be provided.

#### Business Model/Impact

- Businesses using railway ports can easily track.
- Government can use data analytics dashboard to ensure less traffic on the ports.

#### Existing Solutions

- <https://www.iprcl.in/>
- <https://www.gocomet.com/real-time-port-congestion>

#### Recommended Technology Stack

- Cognos Analytics, Tableau, Data Analysis with Python, Power-BI, etc.

#### References

- <https://www.niti.gov.in/sites/default/files/2021-06/FreightReportNationalLevel.pdf>



## Usecase-10:

### **A New Hint To Transportation Analysis Of The NYC Bike Share System**



- Seeking to reduce carbon emissions and increase active travel, U.S. cities have increasingly adopted bike-sharing systems in recent years .
- Bike sharing system have become increasingly popular in many cities. These services allow users to rent bikes for utilitarian and recreational trips in the urban area.
- Bike sharing has been considered a suitable mode to support the first- and last-mile connectivity problems of fixed-route transit services.

## Usecase-10:

# A New Hint To Transportation Analysis Of The NYC Bike Share System



### Social Impact

- Reduce the traffic & environment friendly.

### Business Model/Impact

- Government can promote environment friendly bicycles.
- Fitness companies can run campaigns to target the right customers.

### Existing Solutions

- <https://www.yulu.bike/>

### Recommended Technology Stack

- Cognos Analytics, Tableau, Data Analysis with Python, Power-BI, etc.

### References

- [https://www.researchgate.net/publication/260227758\\_Bicycle\\_Sharing\\_Systems\\_Demand](https://www.researchgate.net/publication/260227758_Bicycle_Sharing_Systems_Demand)

# Thank You

