# **BIBA PROJECT REPORT**

**Organization: AIRBUS** 

**Group Name: BRAINSTORMERS** 

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# PROJECT SPECIFICATION

# **ABSTRACT:**

AirBus has hired us as a Business Analysts to analyze and implement business intelligence systems. We have used Dynamic 365 Sales, Monday Customer Relationship Management (CRM) Supply Chain Management (SCM) to enhance sales, production and on-time delivery. Tableau is used for visualizing five dashboards based on the organization's data. As the organization already has Monday CRM, we have proposed implementing Dynamic 365 CRM for Sales as it has better features and enhances the process effectively. Meanwhile, SCM is implemented using Monday CRM as it is user-friendly and cost-efficient.

# ABOUT THE ORGANIZATION:

Airbus is one of the largest aeronautics and space organizations in Europe. It is a global leader in designing, manufacturing, delivering aeronautical goods, services, and solutions to clients. It involves manufacturing commercial aircraft, space aircraft, Defence aircraft, and Helicopters. Customer focus, integrity, respect, creativity, reliability, and teamwork are the core values that shape the organization. Airbus is distributed in around 180 locations with 12,000 global direct suppliers located in the United States of America, Europe, Africa, Middle East and Asia.



# **ORGANIZATION HISTORY:**

Airbus has a 50-year proven history of innovation, industry milestones, and technological firsts. It is a global leader in designing, manufacturing, and providing aircraft products, services, and solutions to a global customer base, with commercial aircraft, helicopters, defence, space, and security operations. In the 1960s, Airbus started its foundation by manufacturing an aircraft to handle pressure while flying in tropical regions by implementing suspension systems. The main requirement was to be transportable by air. In the 1970s, Airbus collaborated with many European countries by providing aircraft for search and rescue missions and various military requirements. In 1972, A300 was manufactured by airbus, which was considered the most economical commercial twin-aisle

aircraft that could fly and reach altitude sooner than other passenger aircraft. In 1982, Airbus configured the cockpit configuration and introduced a new aircraft with the modified cockpit design facing forward with two pilot crew without a flight engineer. In 1983, Airbus started its journey into space to handle a broad range of communication activities.

In the 1990s, Airbus was involved in expanding frontiers by introducing the A340 series. In the 2000s, a modern passenger jet was introduced to the public. Also, it broke a world record by landing the aircraft on Mt Everest to maintain the highest-altitude landing and take-off ever. Later it built a strong relationship with China by taking an order of 150 A320 passenger aircraft. In the 2010s, Airbus implemented major innovations in introducing dual AFCS, and to perform vertical take-offs, hybrid helicopters were developed. A350 was introduced as a successful maiden flight and manufactured and implemented space surveyor to capture stars in the Milky Way. In its 50-year history, airbus delivered 12000 commercial aircraft and is still growing in all sectors.

#### **CURRENT AND FUTURE PROJECTS:**

Qantas airlines placed an order for 12 A350-1000 planes in May 2022 to be used from Sydney to London, which is considered the world's longest commercial route, which is slated to commence in late 2025.

#### COMMERCIAL AND DEFENCE AIRCRAFT:

| Airbus A220           | Airbus A330         |
|-----------------------|---------------------|
| Airbus A300           | Airbus A330neo      |
| Airbus A310           | Airbus A340         |
| Airbus A318           | Airbus A350         |
| Airbus A319           | A330-220F           |
| Airbus A320 family    | Airbus A380         |
| Airbus A320neo family | Airbus A321         |
| Airbus A330 MRTT      | Airbus A400M Atlas  |
| CASA C-212 Aviocar    | EADS CASA C-295     |
| CASA/IPTN CN-235      | Eurofighter typhoon |

#### **DEPARTMENTS IN AIRBUS:**

Airbus is divided into different sections Commercial Aircraft, Defence aircraft, space, Freighter family, and corporate jets also provides multiple services such as cockpits, Cabin and comfort, and Aerostructures. Different departments in airbus are,

- 1. Human resource department
- 2. Manufacturing department
- 3. Research and development
- 4. Finance department
- 5. Customer Service department
- 6. Sales and Marketing Department

#### **COMPETITORS:**

Airbus's competitors are China Aerospace Science and Technology Corporation, United Aircraft Corporation, Boeing, Almaz-Antey and General Dynamics. Among which Almaz-Antey and Boeing are the top competitors and are close in competition with the terms of the sale.

#### CONTROVERSIES AND INCIDENTS:

In 2020, Airbus paid a £3 billion fine after admitting to paying massive bribes to gain contracts in 20 nations.

| Date_of_occurrence | Accident_incident | Type_of_aircraft        | Description                                    |
|--------------------|-------------------|-------------------------|--|
| 26-11-2005         | Incident          | Airbus 320              | Left-hand main landing gear bogie beam failure |
| 30-05-2007         | Incident          | Airbus 340              | Runway take-off incident                       |
| 06-12-2007         | Incident          | Airbus A319/Boeing 737  | Loss of separation incident                    |
| 10-01-2008         | Incident          | Airbus A380-800         | Push-back incident                             |
| 10-11-2008         | Incident          | Airbus 380              | Air traffic incident                           |
| 13-05-2009         | Incident          | Airbus A320/Boeing 747- | Air traffic incident                           |
| 28-02-2010         | Incident          | Airbus A320             | Foreign object ingestion                       |
| 31-01-2011         | Incident          | Airbus A380-800         | Smoke in lavatory                              |
| 16-05-2011         | Incident          | Airbus A330-300         | Fan blade incident                             |
| 05-10-2012         | Incident          | Airbus A320             | Contact between aerobridge and aircraft        |
| 18-10-2014         | Accident          | Airbus A380-800         | Turbulence event                               |

#### **MARKETPLACE:**

Airbus is an organization in the domain of aerospace which manufactures and delivers commercial and military aircraft globally. It is very popular in manufacturing aircraft in and around Europe. As helicopters are the largest in manufacturing and delivery, the scope is to improve the sales and revenue for commercial and Defence aircraft. Hence, we consider only the commercial and defence sections of airbus and understand different associated processes and departments, which helps improve the organisation's growth.

### **VISION AND OBJECTIVE:**

This project's scope is to handle customer relationship management in sales and supply chain management to improvise sales and delivery. The task was to implement a system to increase sales across different regions. As the clients are high in number, it was hard to access and keep track of their requirements, proposals, quotations, and query details. Due to this, the relationship between the organization and the client is not on track, and the organization's sales are getting affected. To overcome this organization should enhance operational efficiency in the sales team and implement an automated system to handle the sales process from start to end.

Also, due to the high number of orders, the Inventory team is losing track of the order details; as the order details are not tracked, the reorder process gets delayed; therefore, delivery gets impacted. To overcome the above issues, we are hired to implement an automated CRM system and business intelligence dashboards.

# **ANALYTICAL REQUIREMENTS:**

The below information is sourced from CRM and dashboards,

- Track number of deals converted to potential clients, number of opportunities yet to be processed, and Total revenue for the closed sale.
- Compare the competitor's quotation with the Current organization's quotation.

- Compare the order details with respect to manufacturing, delivery and progress.
- Inventory Management to keep track of stock details and raise new orders to the supplier.
- Organization expense and revenue are being analyzed.
- The employee attrition rate is compared with different aspects.
- Comparison with competitors' sales, revenue and products
- Comparison of Stock fluctuations over the years with competitors

The above information is visualized using Dynamic 365 CRM, Monday CRM, and Tableau dashboards. By visualizing this information, we will be able to get insights to understand, increase sales flow, and manage inventory.

### **DESIGN TOOLS AND APPLICATIONS:**

To achieve the vision and objective, the below tools are used as they provide accurate reporting, are cost-effective, and are user-friendly, leading to increased customer satisfaction and operational efficiency and helping an organization get valuable insights out of raw data.

**CRM connected with mail** - Mail will get triggered when there is an action of status change in the stock updates and quote generation in sales.

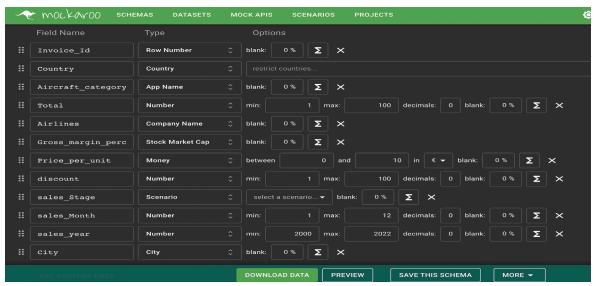
**Tableau** – We have used Tableau for better visualization purposes which helps the organization achieve data-driven decisions based on the visualization.

**Dynamic 365 CRM Sales** – We have used the Dynamic CRM sales module to keep track of the client contacts and accounts, proposals and quotation details in one repository. It helps the sales team to keep in touch with the clients and close the deals quicker. The process is to Create and Qualify leads, create opportunities, Add products, close sales, and generate quotes and invoices.

Monday CRM Supply Chain Management (SCM) – This is to handle the supply chain process to keep track of the in-stock details and reordered details. It improves the development of manufacturing, shipping, and distribution operations, allowing the organization to be more responsive to disruptions.

### **DATASET CREATION**

Tables were created for each department using Mockaroo. The tables are sales, share\_details, inventory\_details, HR\_Employee, Finance and competitor.



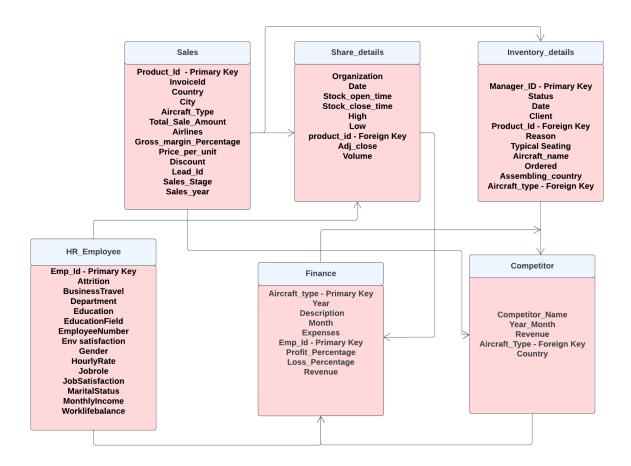
The screenshot represents the sample of one table that has been created through Mockaroo. Each table has 1000

rows and different no of columns. The columns are added based on each scenario, and the datatype has been selected based on the type of data.

### **DATABASE DESIGN**

### ENTITY RELATIONSHIP DIAGRAM:

The entity-relationship diagram helps to understand the relationship between two attributes. It can be used to organize the data, represented by a relational structure. It is used here to represent the table and structures of the airbus organization.



Sales: The sales tables contain the sale details such as product id, invoice id, country, aircraft type, total sale amount, airlines, gross margin, price per unit, Discount, Lead ID, sales stage, and sales year from which PRODUCT ID is PRIMARY KEY.

**Share\_details:** Shares table comprises airbus shares details such as stock open time, stock close time, Stock High, low, Adjusted close, Volume and PRODUCT ID as FOREIGN KEY.

**Inventory\_details:** Inventory details tables comprise order details such as order status, order date, client, Aircraft name, and MANAGER ID is PRIMARY KEY and Aircraft name as FOREIGN KEY.

**Hr\_employee:** The human resource table comprises employee information, including personal data, Education details, and performance details from which EMPLOYEE ID is PRIMARY KEY.

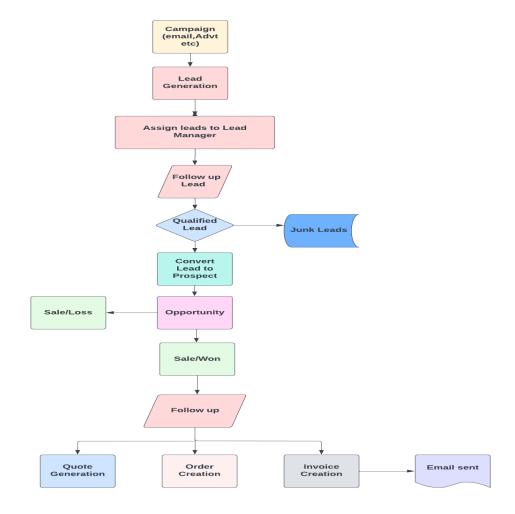
**Finance:** The finance table comprises complete finance and accounting information of the organization having columns such as Year, Description, month, expenses, revenue, profit and loss percentage having AIRCRAFT TYPE and EMP ID as PRIMARY KEY.

**Competitor:** The competitor table comprises Airbus's competitor expense, revenue and sold products details over the years with values competitor name, Month and Year, the country having AIRCRAFT\_TYPE as FOREIGN KEY.

### **SYSTEM DESIGN:**

## CRM SALES MODULE

- Campaign: Customers will come to know about the business's existence through various ways such as
  promotional activities, advertisements, and media sources. The business will start working with the
  clients to make them potential customers.
- Lead Generation and qualification: The salesperson will collect the information about the interested clients and create Leads by adding account and contact information. After that, mail will be triggered to notify the sales team about the status change. Once the lead is created successfully, It will be qualified for the next stage for further process.

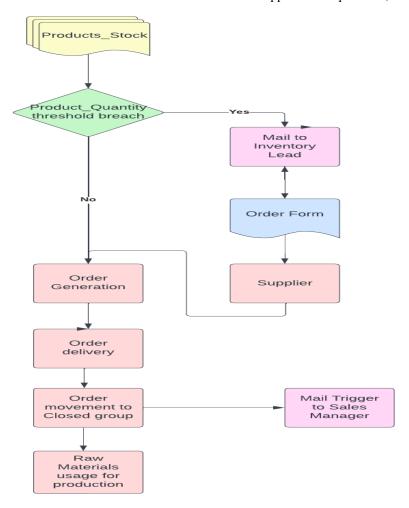


• Opportunity Creation: Once the lead is created, the opportunity will be created by adding the product details and competitor information. If the deal is completed successfully, the sales stage will be moved to close sale/won.

- **Quote Generation**: Once the opportunity sale is closed, the quote is generated with details like shipment details and Billing Address details. Then the quote is activated, and then the order is created.
- Order and Invoice creation: Once the order is created, the invoice will be generated. Then the same invoice will be sent to the sales team and the client with all details.

# **SCM FLOW DIAGRAM**

Supply Chain management maintains the flow from maintaining the raw materials in the warehouse, production management, delivery to the client and the maintenance provided to the client using the Monday CRM. The inventory manager supervises the raw materials in the warehouse. If the raw material count is less than the mentioned threshold value, then a mail will be triggered with a reminder message to create the order request form to submit to the finance team. Once the finance team approves the quotation, the order form is sent to the supplier.



| Form Name         | Link                | Stage     |
|-------------------|---------------------|-----------|
| Create Order Form | Order Creation Form | Inventory |

When the raw material goes below the threshold value, the inventory manager will create an order form, which is submitted to the finance for approval and sent to the supplier.

# LEAN SIX SIGMA CONTINUOUS IMPROVEMENT PROCESS:

Airbus implements Lean six sigma as the continuous improvement process to bring continuous improvement and change management to the organization. It helps the business to lean and improves customer satisfaction. It is one of the performance improvement strategies that focus on team-oriented efforts to eliminate waste and reduce variance. This was implemented in the Airbus defence and space sector.

To promote a change in the culture, they created a "Lean Airbus DS" network comprised of Lean experts, lean improvers, and Change agents to transfer lean knowledge and enhance continuous improvements. To keep track of the process, every three months, they arranged for workshops known as Lean Days. This workshop exposes other employees to understand the organization's challenges and the corresponding action items. In this workshop, every team shares their project details, challenges faced, and the success story.

Different stages in Lean six sigma are,

- 1) Define
- 2) Measure
- 3) Analyse
- 4) Improve
- 5) Control

**Define:** In this stage, Airbus focuses on understanding the objectives, scope, and requirements of the project and how to improve the opportunity.

**Measure:** To establish a performance baseline, the organization assesses the present condition as an "As-Is" state. In addition, the project's target audiences are identified, and if necessary, a dialogue with them begins. A Project Management Plan is also prepared, which details how the project will be run.

**Analyze:** To find the gap, the baseline performance and the goal performance are compared. The "Voice of the Customer/Business/Process" data is also analyzed at this stage in order to capture the consumers' needs, objectives, and preferences. The issues that prevent the company from attaining its objectives are then highlighted. A root cause study is undertaken for each of them in order to properly identify what needs to be resolved in order to better serve the clients.

**Improve:** The company determines "improvement levers" and creates the future ideal process state, or "To-Be" scenario, based on the previous evaluation of the "As-Is" scenario. Having this into account, Airbus creates and executes a plan to achieve that state.

**Control:** At this stage, the organization assesses and verifies whether the goals were met. They also delegate ongoing monitoring and confirmation of post-implementation benefits to operational teams.



# **GAP ANALYSIS**

Gap analysis is a simple tool used by organizations to improve overall performance. It is an excellent BI tool for visualizing data and demonstrating where your firm is suffering and excelling. A gap analysis visualizes the gap between reality and the aim of the organization, making it simple to demonstrate to staff where there is still an opportunity for improvement. However, it can also be used for your entire firm or a single process. In our discussion of the gap analysis template below, we'll focus on how a department may utilise a gap analysis.

- Find the current state of Airbus
- Identify where you wish to see the organization in future
- Find out the gaps in the organization
- Implement steps to reduce the gaps

# **SWOT ANALYSIS**



**Strength:** Airbus has manufacturing units in most countries, and it has launched an environment friendly Blue 5 to focus on reducing energy, CO2, water and waste. It has the best Research and Development team, which plays an important role in increasing its revenue of Airbus. Boeing, the major competitor, have a gross share of about 42 per cent based on the number of aircraft sold. At the same time, Airbus has a gross share of 58 per cent.

**Weakness**: During the manufacturing of the Airbus A 380, the share price decreased due to the delay in production, which increased the cost of production. Due to problems in supply chain management, most of the product delivery was delayed. For example, A380 Neo delivered in July 2016 is eight.

**Opportunity**: Implementing new technologies can help the organization identify the flaws and improve business. The number of people using air mode of transport is increasing nowadays and is likely to skyrocket in the upcoming days.

**Threats**: Both China and Russia are planning to introduce their aircraft for commercial purposes. Due to different rules imposed for passenger safety to maintenance, all the aircraft manufacturing companies are facing difficulties. This may affect the market share of Airbus if it doesn't take part in the market.

# **BALANCED SCORE CARD:**

The organization collects feedback from the customers to improve their business techniques and products, which in turn not only promotes the financial growth of the company but also increases the number of customers and maintains a better business relationship with shareholders. Under the Finance section, the organization needs to identify their position from the shareholders' perspective because the shareholders monitor the profit margin and loss of the project.

Purpose Statement: To manufacture high-quality aircraft and deliver them on time

Enhance the sales by maintaining communication with clients and closing the deal

# **Financial Perspective**

- a. Project Profitability
- b. Order Intake
- c. Sales

### Learning and Growth

- a) Employee benefits and engagement
  - b) Appraisals on time
- c) Employee Training in cross functional teams
  - d) Employee Communication survey

#### **Customer Perspective**

- a) On-Time delivery
- b) New client enquiry
- c) Existing Client queries
  - d) Lost orders

#### **Internal Business Perspective**

- a) Order Quality
- b) Enhance Forecasting
- c) Size of the supplier base
- d) Enhanced Inventory Management

Meanwhile, the Internal Business Process section needs to identify the business areas that need improvement. In the Learning and Growth section, the organization must improve their technologies and the learning provided to the employees. Finally, in the Customer section, to maintain the existing customers and increase them, we need to perform a continuous assessment by getting feedback from customers. By providing the employees with up-to-date knowledge about the technologies, we can find the area where improvement is needed, which in turn gains more customers and increases the revenue of the organization, which meets up the expectation of shareholders.

The below table describes the objective, measure that needs to be taken, the target planned and the initiatives that need to be taken to overcome the issue in all the four stages of the balanced scorecard.

|                                 | OBJECTIVES  • Increase Revenue • Increase profit  | MEASURES  Net profit Operation costs Revenue  | TARGETS  • Increase 10% per year • Increase 5% per                                    | INITIATIVES  • Introduce new analysis methods to predict and maintain the finance sector |
|---------------------------------|---|---|---|--|
| FINANCE                         | Reduce the operational cost   | Reference   | year  • Reduce 3% per year  | Reduce the complex quote<br>structure  |
| CUSTOMER                        | Improve customer point perception     Improve customer experience   | Market share index     Customer satisfaction index  | Increase 5% per year     Increase 10% per year  | Perform study in different<br>locations to understand<br>customers                       |
| INTERNAL<br>BUSINESS<br>PROCESS | Improve the customer support     Improve the marketing sector     Provide offers , etc to increase customers        | Brand     awareness     New product     sales   | Increase 5% per year     Increase 15% per year  | Training programme for new equipment Choose different media to improve marketing         |
| LEARNING AND<br>GROWTH          | Increase training for employees to improve their knowledge and skills     Improve the technology and products used. | Employees     work life     balance     Continuous     exposure to new     technologies     and machines     Information     efficiency index | <ul> <li>Increase 80% per year</li> <li>Increase 60% per year</li> <li>95%</li> </ul> | Improve the employees<br>knowledge on terms and<br>conditions about the<br>product       |

# PRICING COMPARISION – MONDAY CRM AND DYNAMIC 365 CRM

| Module                  | Dynamic 365         | Monday CRM      |
|-------------------------|---------------------|-----------------|
| Sales Professional/Pro  | € 54.8 /user/month  | € 48/user/month |
| Supply Chain Management | € 151.80/user/month |                 |

From the above pricing comparison table, we can see the monthly price for Dynamic 365 Sales and Monday CRM. As the organization already had a premium membership in Monday CRM, we utilized it for implementing SCM due to cost efficiency. With respect to goals in the Balanced Score Card and Continuous Improvement Process, we have proposed an additional CRM implementation for Sales.

# PROJECT IMPLEMENTATION

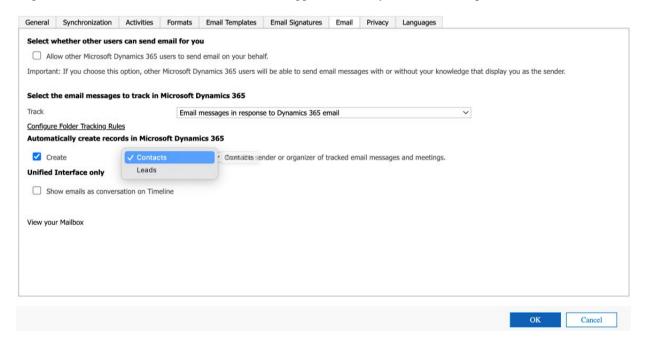
# **DYNAMICS 365 CRM - SALES MODULE:**

A sales process is a set of actions that sellers use to engage with the potential consumer, from the initial stages of awareness to the final stages of the transaction. The sale process starts from Leads generation, opportunity creation with product addition and then closing the opportunity with Quote generation.

Dynamics CRM is a customer relationship management application that simplifies customer interactions and provides a streamlined workflow for tracking leads, providing insights and support to customers, and integrating the sales marketing and support activities.

### **CREATE EMAIL WORKFLOW:**

Set up an email workflow for different changes in the sales process. Whenever a Salesperson changes the sales stages from one to another, the email will be triggered to notify the concerned person in the sales team.



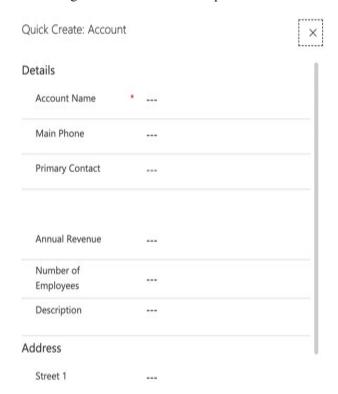
# **LEADS CREATION:**

The sale process starts from Leads creation. The Leads might have come through different sources or were automatically generated. The Lead is nothing but a person interested in the product or services that the organization provides. In Dynamic 365, Leads page, the primary details related to sales are added such as customer details such as contact, status, Estimated\_closed\_data, Rating and Probability. Along with Lead details, competitors, sales team and other stakeholder information are added. Once the Lead is generated, the next stage is the qualifying stage means that when the prospects are ready to buy the product, they become a potential customer. Then the next stage is to create opportunities for the Leads. The below Fig shows the closed Leads for Airbus Sale.

| Close | d Leads 🗸             |                      | ⊞ Edi       | t columns | Z Edit filters | Search t   | nis view |
|-------|-----------------------|----------------------|-------------|-----------|----------------|------------|----------|
| 0     | Name Y                | Topic ∨              | Owner Y     | Status Y  | Created On     | <b>↓</b> ~ | Merged ∨ |
|       | Jabez Parker          | Defence Airjets      | Gayathri Ma | Qualified | 5/11/2022      | 12:09      | No       |
|       | Harrison Curtis       | Commercial Aircraft  | Gayathri Ma | Qualified | 5/11/2022      | 11:11      | No       |
|       | Gabriela Christiansen | aircraft purchase    | Gayathri Ma | Qualified | 5/10/2022      | 8:00 P     | No       |
|       | Winford john          | wings part           | Gayathri Ma | Qualified | 5/10/2022      | 7:18 P     | No       |
|       | John Mathew           | Cock pit purchase    | Gayathri Ma | Qualified | 5/10/2022      | 4:42 P     | No       |
|       | Karen jim             | Raw material enquiry | Gayathri Ma | Qualified | 5/10/2022      | 1:43 P     | No       |
|       | Gerald Stephens       | Centre fuselage      | Gayathri Ma | Qualified | 5/7/2022 9     | 41 AM      | No       |
|       |                       |                      |             |           |                |            |          |

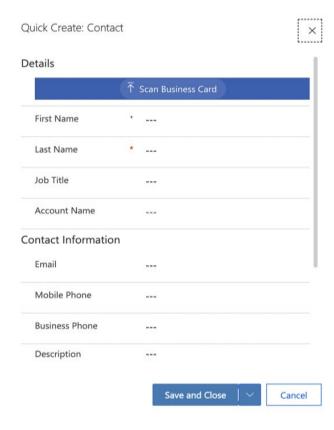
# **ACCOUNT ADDITION IN THE SALES PROCESS:**

The Accounts is nothing but an individual company that is a potential customer for Airbus. Here, the Accounts are nothing but different Airline companies that want to connect with Airbus to acquire various Aircraft.



# CONTACT ADDITION IN THE SALES PROCESS:

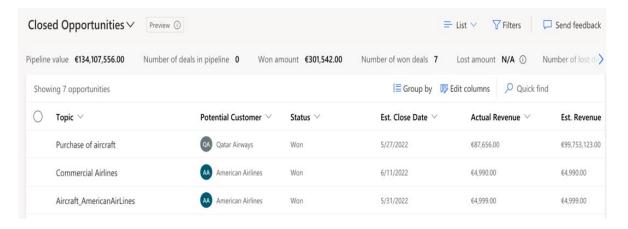
Contact is nothing but any person who relates to the account in the sales process.



For Contact creation, the individual contact's first name, last name, Job title and also the details such as Email and phone are added.

### **OPPORTUNITY CREATION:**

The opportunity helps to develop the sale in the CRM process. Once the lead is qualified, the same will be converted into an opportunity. While creating an opportunity, we add line items and the Account and contact details. The expected sale\_close\_date and the sales\_stage will also be added. The Competitor information is added for that opportunity with win probability.



#### PRODUCTS ADDITION: Purchase of aircraft E2 X Reopen Opportunity & Assign Delete Read-only This record's status: Won Gayathri Malaichamy Purchase of aircraft - Saved 5/27/2022 Won €99,753,123.00 Est. Close Date Est. Revenue Status Owner Opportunity · Sales Insights ∨ **Opportunity Sales Process** Develop Propose Completed in 47 minutes Summary **Product Line Items** Quotes Related Price List Aircraft Revenue System Calculated C Refresh ₀⁄° Flow ∨ Extended Amount > Product Name > Price Per Unit ∨ Proper... Y Unit Y Quantity > Disco... Y aircraft Not Co €98,765,467.00 1.00000 €98,765,467.00

Once the sale is completed successfully, the stage will be moved to closed\_won; if not, it will be moved to closed\_loss. Once the sale is closed, the quote is generated and forwarded to the concerned person in the sales process.

€987,656.00

1.00000

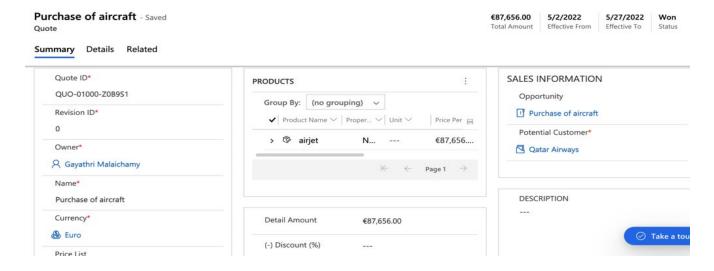
€987,656.00

Not Co

# **QUOTE GENERATION:**

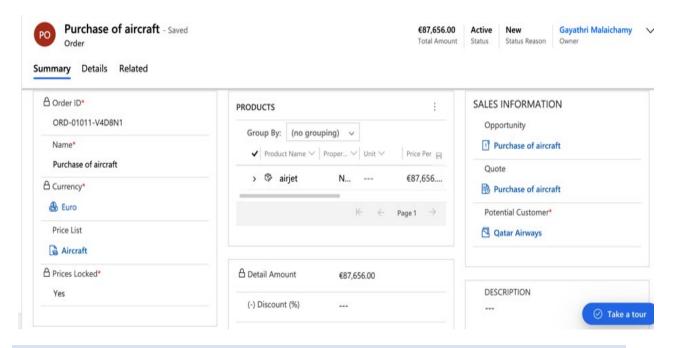
airjet

Once the opportunity moves to closed sale, the Quote will be generated with Product details, Billing Address and Shipment details. Once the quote is generated successfully, the email will be triggered to the client with Quote for the deal.



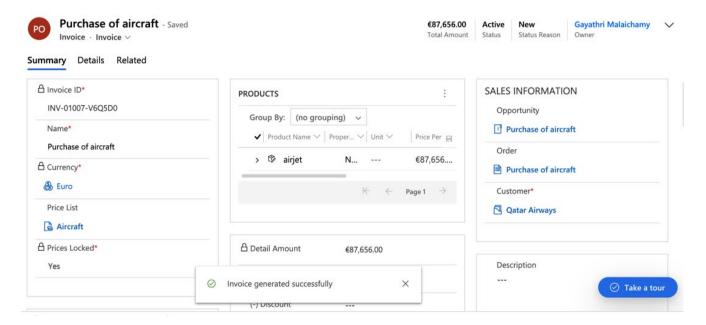
### **ORDER GENERATION:**

Once the quote is generated and moved to Activate Quote state, the Order will be created for sale. The order consists of all information related to sales, product items, budget, and Discount. Once the Order is created, we can create the Invoice as below.

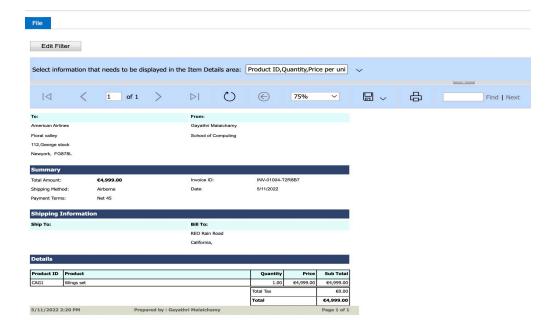


### **INVOICE CREATION:**

Once the Order is created, the invoice will be generated for the same, and the same will be sent to the sales manager as well as the client.

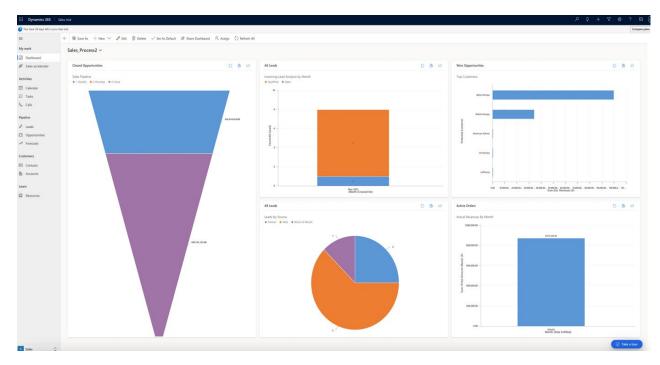


The below screenshot depicts the invoice generated for the sales process.



# THE SALES DASHBOARD:

The below screenshot represents the sales dashboard for the month of May 2022.



The Sales Hub features its dashboard for tracking lead conversions, determining the source of leads, total opportunities processed, and income made through sales.

These dashboard charts can be modified for the organization to examine vital information from the sales department and the company's most influential stakeholders. The above dashboard shows that the total closed sale gained more revenue for the current month.

# SUPPLY CHAIN MANAGEMENT

The process of tracking the events from raw materials to final product delivery to the customer. Supply chain management has emerged as a critical component for major manufacturing companies. The new techniques implemented by aircraft manufacturers significantly posed a significant challenge to the aviation industry's supply chain, design, and production. Some of the difficulties faced by the organization are listed below:

- Difficulties in the production process
- Difficulties as a result of the requirement for risk-sharing suppliers
- Inadequate experience managing complicated programs
- The relatively long interval between planned and actual availability of additional capacity.
- A shortage of quick and effective training to grow the workforce
- Concerns about the production quality and dependability of some of the materials provided

This project aims to provide a solution to keep track of the raw material stock available and product manufacturing and delivery. Monday CRM is used to implement the Supply Chain Management Process using three templates as listed below:

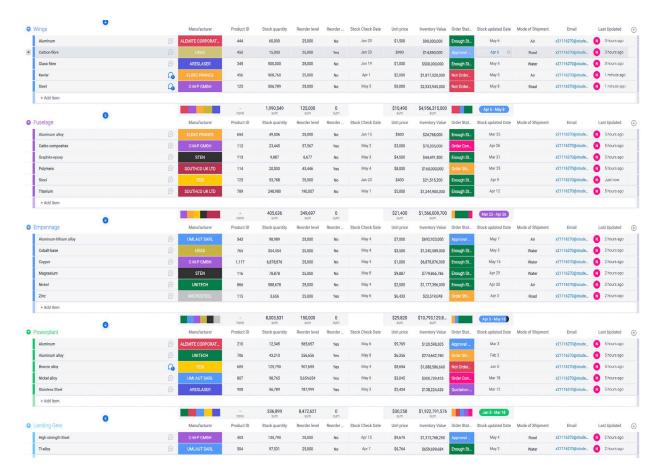
- Inventory
- Order Form
- Inventory Management

#### **MONDAY CRM**

Monday successfully integrates project management with CRM, getting excellent ratings from customers and industry professionals. The CRM manages clients, leads, and campaigns, while the project planning application keeps track of projects, budgets, and teams. Many CRMs are interruptive, with too many notifications and no mechanism to customize when and how we get alerts. We have total control over task notifications using Monday CRM. It also has time monitoring and calendar sharing capabilities. We can sort data, add custom filters, and organize it into charts, dashboards, and reports using Monday CRM. Get a high-level view of our sales cycle or get into minutiae like conversion rates by source. It is entirely customizable, so we may view and compile data the way we choose. Monday's pipeline template may be used in Lead management to track sales team activities and automate follow-ups. It is simple to keep track of the status of each contract and observe how our team is doing. Monday also provides lead scoring, allowing us to prioritize the proper accounts. Features of marketing: The CRM can keep track of all the moving pieces of our creative initiatives and provide key performance indicators (KPIs) such as marketing ROI. Monday CRM also interacts with industry leaders.

### **INVENTORY:**

The main parts of the aircraft include Wings, Fuselage, Empennage, Powerplant and Landing Gear. Various raw materials are used in manufacturing, such as steel, aluminium, fibre components, and so on. The below table shows the different parts of the aircraft and the raw materials used for manufacturing those parts. It also includes information like stock available, Status of ordered items, stock updated date, price of each product, manufacturer and the overall amount.



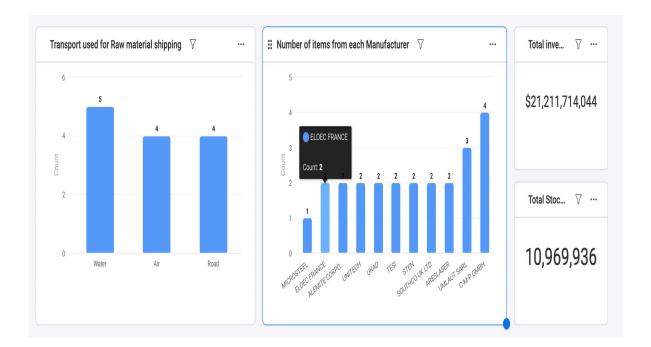
In our scenario, an inventory template is used to keep track of the raw materials available in the warehouse.

# AUTOMATION IMPLEMENTED:

The order status will be automatically set to 'Enough Stock' once the latest order is received, and the stock updated date will be set to the order received date. The inventory template is also integrated with the Gmail account. An automatic mail will be triggered to the manager when the stock status is set as 'Not Ordered' and when the product stock is less than a threshold level. Implementing an Inventory template help the organization keep track of the raw materials available, which helps to complete the product manufacture and delivery on time.



Airbus has around 150+ approved suppliers all over the world. The below dashboard created using the Monday CRM depicts the mode of transport used for shipping the raw materials from suppliers to different manufacturing units. It also displays the total inventory value of the stocks available in the warehouse and the total number of stocks.



### **ORDER FORM:**

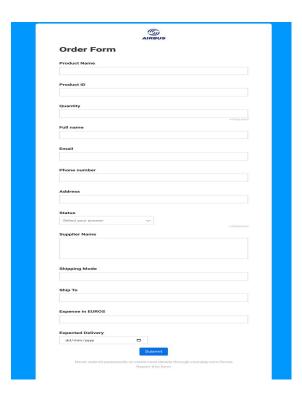
When a product is less than the threshold value, an automatic mail will be triggered to the sales department manager. Once the mail is received, the manager will raise an order request using the Order form template to the supplier. The order request submitted will be sent across multiple departments like finance for approval and finally submitted to the supplier. We have two groups: open orders and closed orders, as shown below.



The table maintains quantity, supplier name, shipment mode, manufacturing unit to which the raw material should be shipped, and expected delivery date, as shown in the above table. Different stages of the requested order can be tracked in this template to keep track of the order placed. Once the order is shipped to the manufacturing unit, the order request will be moved to the closed orders.

# FORM TO CREATE AN ORDER:

The inventory manager responsible for tracking the stocks will create a request using the Order template shown below.

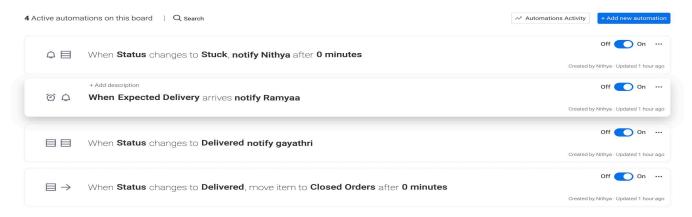


The form includes different attributes like product name, product id, the quantity of the product, details about the supplier, amount, shipment mode, expected delivery date, and manufacturing unit, which creates the request and sends an alert to the manager and finance team.

Once the finance team approves the quotation, the form will be displayed in the supplier dashboard, and the products will be shipped to the manufacturing unit. Using this order form, the whole process from raw material request to delivery can be kept on track. If there is any issue in the raw material delivery, the status will be changed to "Stuck", and an email will be triggered to the manager.

# **AUTOMATIONS IMPLEMENTED:**

As shown below, different automation conditions are implemented in the CRM to update the managers on any change in the status of the products

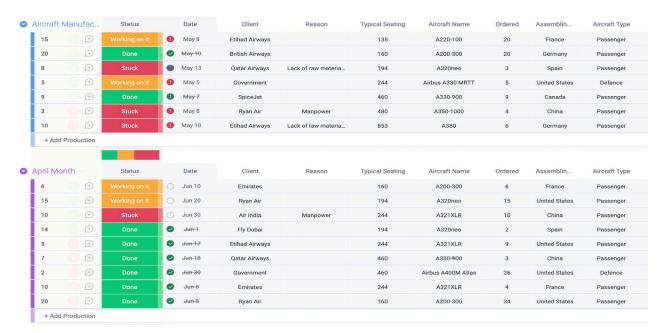


Below dashboard visualizes the total number of open and closed records concerning the order's status. Different modes of transport are used to deliver the raw materials to different manufacturing units worldwide. Airbus has six manufacturing units in France, the United States, Canada, China, Spain and Germany. It has around 150+ suppliers for supplying the raw materials, including the ART material, cabin and cargo engineering design services, and electronic component distributors.



#### INVENTORY MANAGEMENT

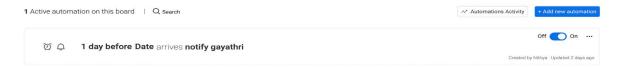
Inventory management is used to keep track of the number of products ordered by the client and the products delivered on time, and the reason for delay.



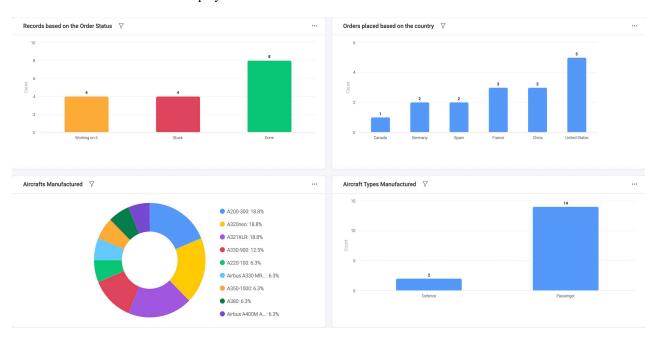
In this scenario, it can be seen that there is a significant increase in on-time delivery of aircraft after the implementation of supply chain management CRM in the organization. To create a new record, click on the "New Production" button and provide client details, delivery date of aircraft, aircraft type, dimensions, and the country where the parts are assembled.

# **AUTOMATIONS IMPLEMENTED:**

One day before the due date, a mail will be triggered to the production manager to notice the number of aircraft delivered and the client details.



The individual dashboard is generated for the inventory management template as shown below, and it can be seen that the number of records based on the status is displayed. At the same time, aircrafts manufactured and the type of aircraft manufactured can be displayed.



# TABLEAU VISUALIZATION

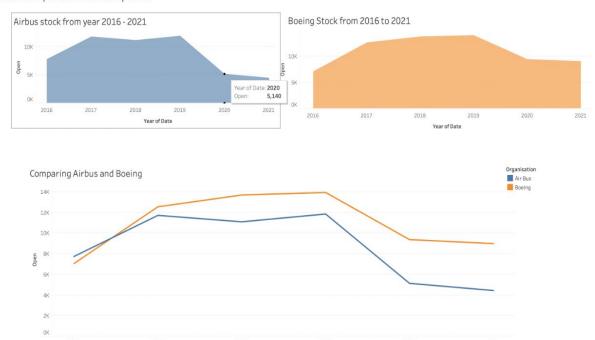
Tableau is a data visualization tool used extensively in an organization to visualize the data, get insights from the data, and help achieve better data-driven decisions. It helps to convert the textual and numerical data to visual representation.

# DASHBOARD 1: STOCK COMPARISON WITH COMPETITORS FROM THE YEAR 2016 TO 2021.

Stock Comparison dashboard of Airbus with Boeing from the year 2016 to 2021.

From the below dashboard, we can see the graph of Airbus stock values from 2016 to 2021; the value decreases in the year 2020 to 2021 due to covid. When checking for Boeing, we can see the stock values got decreased within the same year. From the time series graph, we can notice the stocks for Airbus are less compared to Boeing; also, during the pandemic, both the stock values got impacted.

#### Stock comparison with competitor



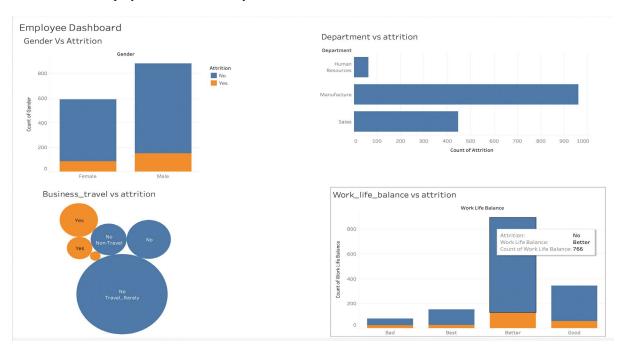
# DASHBOARD 2 - EMPLOYEE DASHBOARD

Employee Dashboard comprises graphs compared with different aspects related to attritions.

We can infer from the above dashboard that the male attrition rate is comparatively more than female attrition. Compared to the department, the Manufacturing department has the highest attrition rate, and human resources have the lowest.



To understand if the attrition rate depends upon the employee's work-life balance, it is inferred that employees with a neutral work-life balance have less attrition rate. Later, the attrition rate is analyzed based on employee business travel, employees who travel rarely have less attrition rate.



Also, Job and environmental satisfaction are compared with Attrition. We can infer that the employees who are not happy with the job and environment are considered to leave the organization. Finally, the employees whose education background is bachelor's college are considered to have less attrition rate than the proportion.

# DASHBOARD 3 - AIRBUS REVENUE AND EXPENSE COMPARISON



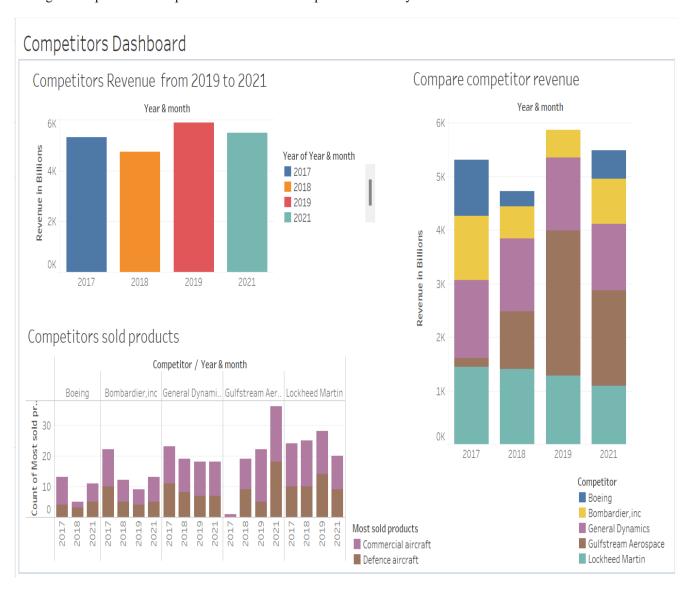
From the above dashboard, we can see the first graph comprises the organization's expenses over the years. From 2015 to 2021, the expenses are maintained at a standard level. Nevertheless, in 2019, we can notice the expenses are high comparatively, and it was less in 2015.

From the second graph, comparing revenue over the years, we can say that during November 2017, we can see the revenue has increased from 2016 to 2017, but after 2-17, there was a decrease in the trend line. Whereas in the month of august we can notice the trend is so stable which eventually shows the revenue is constant.

From the second graph, comparing revenue over the years, we can say that during November 2017, we can see the revenue has increased from 2016 to 2017, but after 2017, there was a decrease in the trend line. Whereas in the month of august we can notice the trend is so stable which eventually shows the revenue is constant.

## DASHBOARD 4: COMPETITOR'S COMPARISON DASHBOARD

Airbus competitors are Gulfstream Aerospace, Lockheed Martin, General Dynamics, Bombardier inc., and Boeing. A comparison of competitors' revenue and sold products are analyzed.

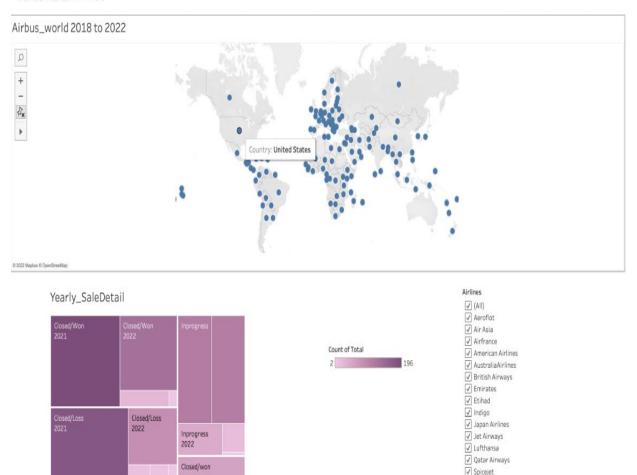


From the graph, competitors' revenue from 2019 to 2021 can be visualized. For all the organizations in the year 2019, the revenue is high, whereas, in 2018, the revenue is comparatively less. In the second graph, the revenue is compared across all the competitors from 2017 to 2021. After Airbus, Gulfstream aerospace shows the highest revenue, and Boeing shows the lowest. Finally, the third graph compares competitors with aspects to the most sold products such as commercial or defence aircraft over the years.

#### **DASHBOARD 5: SALES DATA OF AIRBUS**

To visualize the sales data of AirBus across countries from the year 2018 to 2022. From this dashboard, we can infer airbus sales distribution to different airlines worldwide. Also, different sales stages associated with AirBus are visualized with status as new, in progress, closed or won, and lost over the years.

#### Sales Data AirBus



# CONCLUSION

One of the most effective strategies to cut business costs is to reduce inventory and maintain production flow efficiently. The CRM system's practical use is critical for the organization, particularly the manufacturing enterprise, in composing the production plan. We identified the goals and perspective using BSC and SWOT from which the necessity of the CRM implementation was considered. After CRM implementation, significant growth in the production and order delivery process accelerated the sales and revenue. In order to maintain the company's growth, the Lean Six sigma CIP should be adapted.

# **TEAMWORK**

Initially, the whole team discussed several topics and ideas to be implemented in this project and then finalized the organization and problem statement. Later we divided the activities among ourselves and acquired knowledge of the same, then worked on knowledge transfer to make sure everyone was aware of the functionalities and project flow.

One person acquired knowledge about CRM Sales in dynamic 365, another person learned about CRM Supply chain management in Monday CRM, and the third person worked on Dashboard implementation in Tableau. As all the activities are split equally, team collaboration was effective, and implementation was more straightforward.

### Gayathri Malaichamy

- CRM Sales Implementation
- System Design & Mock Dataset Creation
- Contribution to Specification, Implementation Report and PPT

### Nithya Sathiadhas Puvaneswari

- CRM Supply Chain Management Implementation
- Balanced Scorecard & SWOT analysis
- Contribution to Specification, Implementation Report and PPT

### Ramyaa Rajasekar

- Tableau Dashboard Creation
- Database Design & Continuous Improvement Process
- Contribution to Specification, Implementation Report and PPT

# REFERENCE

- 1. AirBus Website: <a href="https://www.airbus.com/en">https://www.airbus.com/en</a>
- 2. Monday CRM Pricing Details: https://monday.com/crm/pricing
- 3. Dynamic 365 Sales: <a href="https://dynamics.microsoft.com/en-us/pricing/#Sales">https://dynamics.microsoft.com/en-us/pricing/#Sales</a>

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