**Project Charter Document**



**Project Name:** Medical Inventory Optimization

**Industry:** Manufacturing

**Department:** Technical resolution department

**Product/Process/Project:** Data Analysis



**Prepared By**

|  |  |
| --- | --- |
| **Document Owner(s)** | **Project/Organization Role** |
| Vaka Prasanna | Data Analyst |
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|  |  |

**Project Charter Version Control**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change Description** |
| 1.0 | 21/03/2024 | Vaka Prasanna | Document created |
| 1.1 | 26/03/2024 | Vaka Prasanna | Constraints and Project Architecture |
| 1.2 | 30/03/2024 | Vaka Prasanna | Data collection |
| 1.3 | 02/04/2024 | Vaka Prasanna | Data Preparation |
| 2.1 | 06/04/2024 | Vaka Prasanna | Descriptive analysis |
| 2.2 | 10/04/2024 | Vaka Prasanna | Insights document using Python |

**TABLE OF CONTENTS**

[1 PROJECT CHARTER PURPOSE 3](#_Toc138436145)

[2 PROJECT EXECUTIVE SUMMARY 3](#_Toc138436146)

[3 PROJECT OVERVIEW 4](#_Toc138436147)

[4 PROJECT SCOPE 4](#_Toc138436148)

[4.1 Project Deliverables 4](#_Toc138436149)

[4.2 Deliverables Out of Scope 4](#_Toc138436150)

[4.3 Project Duration (start date: 21/03/2024 End date: 14/04/2024) 4](#_Toc138436151)

[5 PROJECT CONDITIONS 5](#_Toc138436152)

[5.1 Project Assumptions 5](#_Toc138436153)

[*5.2* Project Issues *– Fill it as and how project progresses.* 5](#_Toc138436154)

[5.3 Project Risks – *Identify if there are any risks that you foresee.* 6](#_Toc138436155)

[6 PROJECT REFERENCES – Any previous projects you have referred. If yes, please share the details. 6](#_Toc138436156)

[7 APPROVALS 6](#_Toc138436157)

# PROJECT CHARTER PURPOSE

The project charter defines the scope, objectives, and overall approach for the work to be completed. It is a critical element for initiating, planning, executing, controlling, and assessing the project. It should be the single point of reference on the project for project goals and objectives, scope, organization, estimates, work plan, and budget. In addition, it serves as a contract between the Project Team and the Project Sponsors, stating what will be delivered according to the budget, time constraints, risks, resources, and standards agreed upon for the project.



# PROJECT EXECUTIVE SUMMARY

* Business Problem: Bounce rate is increasing significantly leading to patient dissatisfaction.
* Business Objective: Minimize bounce rate.
* Business Constraint: Minimize inventory cost.
* Success Criteria:
  + Business Success Criteria: Reduce bounce rate by at least 30%
  + Economic Success Criteria: Increase revenue by at least 20 lacs INR by reducing bounce rate.
* Data Collection: Update this section after the research is done.
* Scope: If you are doing this for any specific department of the organization then please mention the same.
* Assumptions: E.g., Data will be provided by customer, Cloud & GPU will be provided by customer
* Risks: E.g., Required data might not be available; Server connectivity might be weak, etc.
* Costs: Project cost – You can do assumptions by putting [number of hours \* number of human resources (cadre wise) \* hourly cost]
* Timeline: High level timeline of the project. E.g., Project will be for 25 to 30 days.
* Approach: Data Analytics Project Management Methodology



# PROJECT OVERVIEW

The objective of this project is to design and implement a comprehensive Medical Inventory System that aims to minimize the bounce rate (the rate of patients leaving the hospital without treatment due to unavailability of medical supplies) while simultaneously minimizing the inventory cost. This system will enhance the efficiency of managing medical supplies in healthcare facilities, ensuring that essential items are always available when needed, without excessive surplus inventory.



# PROJECT SCOPE

The scope of the project is to minimize the bounce rate and the inventory cost and increase the revenue of the organization.

## Project Deliverables

|  |  |
| --- | --- |
| **Milestone** | **Deliverable** |
| * Identifying Constraints and design the project architecture, explore various public forums to collect relevant data, Data Preparation. | * Deliverable 1.1—Identifying Constraints and design the project architecture. * Deliverable 1.2—Explore various public forums to collect relevant data. * Deliverable 1.3— Data Preparation |
| * EDA and Descriptive Analytics | * Deliverable 2.1— EDA and Descriptive Analytics * Deliverable 2.2— Insights documentation |
| * Show case and review, Final Presentation and documentation, Handover and KT. | * Deliverable3.1 – show case and review. * Deliverable3.2 – Final Presentation and documentation * Deliverable3.3 – Handover and KT |

## Deliverables Out of Scope

* Web Application
* Mobile App
* Cloud based deployment

## Project Duration (start date: 21/03/2024 End date: 14/04/2024)

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Milestone** | **Date Estimate** | **Deliverable(s) Included** | **Confidence Level** |
| * Identifying Constraints and design the project architecture, explore various public forums to collect relevant data, Data Preparation. | [21/03/2024]  -  [30/03/2024] | * Deliverable 1.1—Identifying Constraints and design the project architecture. * Deliverable 1.2—Explore various public forums to collect relevant data. * Deliverable 1.3— Data Preparation | [High] |
| * EDA and Descriptive Analytics | [01/04/2024]  -  [08/04/2024] | * Deliverable 2.1— EDA and Descriptive Analytics * Deliverable 2.2--- Insights documentation | [High] |
| * Show case and review, Final Presentation and documentation, Handover and KT. | [09/04/2024]  -  [14/04/2024] | * Deliverable3.1 – show case and review * Deliverable3.2 – Final Presentation and documentation * Deliverable3.3 – Handover and KT | [Medium] |



# PROJECT CONDITIONS

## Project Assumptions

* Data will be extracted from public sources and then client provided data is mapped and finally one master data will be shared by Innodatatics for further analysis.
* Dashboards and insights are mandatory.

## Project Issues *– Fill it as and how project progresses.*

**Priority Criteria**

1 − High-priority/critical-path issue; requires immediate follow-up and resolution.

2 − Medium-priority issue; requires follow-up before completion of next project milestone.

3 − Low-priority issue; to be resolved prior to project completion.

4 − Closed issue.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **#** | **Date** | **Priority** | **Owner** | **Description** | **Status & Resolution** |
| 1 |  | High |  |  |  |
| 2 |  | High |  |  |  |

## Project Risks – *Identify if there are any risks that you foresee.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Risk Area** | **Likelihood** | **Risk Owner** | **Project Impact-Mitigation Plan** |
| 1 | [Project Risk] | [High/Medium/Low] |  |  |
| 2 | [Project Risk] | [High/Medium/Low] |  |  |



# PROJECT REFERENCES – Any previous projects you have referred. If yes, please share the details.

|  |  |
| --- | --- |
| **Project** | **Description** |
| [jh Data-driven inventory management of medical supplies in hospitals: A case study | Case study of a hospital implementing data-driven inventory management for medical supplies, discussing challenges, data sources, analytical methods, and outcomes. |
| M Machine learning for inventory management in healthcare | Exploration of machine learning for inventory management in healthcare, focusing on demand prediction, stock level optimization, and supply chain efficiency. |
| Optimization of medical supplies inventory using data analytics | Discussion on optimizing medical supplies inventory using data analytics, including forecasting, demand prediction, and inventory level optimization strategies. |

# APPROVALS

**Prepared by** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Manager

**Approved by** Sharat Chandra M\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Sponsor

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Executive Sponsor

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Client Sponsor

