**Project Charter Document**



**Project Name:** Building a Medical Inventory Optimization Model

**Industry:** Pharmaceutical

**Department:** Market Analysis

**Product/Process:** Data Analysis



**Prepared By**

|  |  |
| --- | --- |
| **Document Owner(s)** | **Project/Organization Role** |
| Give your name | Mention that you are data analyst or data scientist |
| Y. Srinivas Jagadeesh | Data Analyst |
|  |  |

**Project Charter Version Control**

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change Description** |
| 1.0 | 24/03/2024 | Y. Srinivas Jagadeesh | Document created |
| 2.0 | 31/03/2024 | Y. Srinivas Jagadeesh | Added Project References and Data Collection |

**TABLE OF CONTENTS**

[1 PROJECT CHARTER PURPOSE 3](#_Toc163945385)

[2 PROJECT EXECUTIVE SUMMARY 3](#_Toc163945386)

[3 PROJECT OVERVIEW 4](#_Toc163945387)

[4 PROJECT SCOPE 4](#_Toc163945388)

[4.1 Project Deliverables 4](#_Toc163945389)

[4.2 Deliverables Out of Scope 5](#_Toc163945390)

[4.3 Project Duration (start date: 18/03/2024 End date: 14/04/2024) 5](#_Toc163945391)

[5 PROJECT CONDITIONS 5](#_Toc163945392)

[5.1 Project Assumptions 5](#_Toc163945393)

[*5.2* Project Issues *– Fill it as and how project progresses.* 6](#_Toc163945394)

[5.3 Project Risks – *Identify if there are any risks that you foresee.* 6](#_Toc163945395)

[6 PROJECT REFERENCES 6](#_Toc163945396)

[7 APPROVALS 6](#_Toc163945397)

# 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**:

**Pharmaceutical Supply Chain Data for Inventory Optimization:**

* Source: Pharmaceutical supply chain records
* Format: Database tables containing Patient\_ID, Specialisation, Dept, Dateofbill, Quantity, Formulation, ReturnQuantity, DrugName, SubCatagory, Final\_Sales, Final\_Cost and Typeofsales information
* Frequency: Monthly data for the past 12 months
* Responsible Party: Data Analyst
* **Scope:** The scope of this project is to develop and implement a medical inventory optimization model specifically for the pharmacy department of the leading hospital in India. The model will focus on improving inventory management practices to reduce bounce rates and minimize inventory costs.
* **Assumptions:**
* Data will be provided by the hospital pharmacy department, including historical inventory data, patient traffic data, and sales data.
* The hospital will provide necessary infrastructure support such as cloud services and GPU resources for data processing and modeling.
* **Risks:**
* Data quality issues: There may be challenges with data accuracy or completeness, impacting the effectiveness of the inventory optimization model.
* Technological constraints: Connectivity issues or limitations in the provided infrastructure (cloud services, GPU resources) could affect project timelines and outcomes.
* External dependencies: Factors such as supplier delays, regulatory changes, or unexpected fluctuations in patient demand could pose risks to inventory management.
* **Costs:**

Project cost = [Number of hours \* Number of human resources (cadre wise) \* Hourly cost]

Assuming the following:

* Project duration: 30 days
* Human resources:
* Data Analyst (40 hours/week): $30/hour
* Software Developer (40 hours/week): $35/hour
* Project Manager (20 hours/week): $40/hour

Calculating the costs:

* Data Analyst: 40 hours/week \* 4 weeks \* $30/hour = $4,800
* Software Developer: 40 hours/week \* 4 weeks \* $35/hour = $5,600
* Project Manager: 20 hours/week \* 4 weeks \* $40/hour = $3,200

**Total project cost = $4,800 + $5,600 + $3,200 = $13,600**

* Timeline: Project will be for 30 Days
* Approach: Data Analytics Project Management Methodology



# PROJECT OVERVIEW

The project aims to address the increasing bounce rate in the hospital's pharmacy, which has been causing patient dissatisfaction. Bounce rate refers to the rate at which patients leave without completing their transactions or receiving services. This issue is critical as it not only impacts patient experience but also reflects operational inefficiencies that can lead to revenue losses.



# PROJECT SCOPE

## 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: 18/03/2024 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. | [18/03/2024]  -  [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 | [31/03/2024]  -  [10/04/2024] | * Deliverable 2.1— EDA and Descriptive Analytics * Deliverable 2.2--- Insights documentation | [High] |
| * Show case and review, Final Presentation and documentation, Handover and KT. | [10/04/2024]  -  [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

* Secondary available data source relevant to medical inventory management will be identified and accessible. The quality and relevance of this data will be assessed before integration.
* 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 |  |  |  |

## 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] |  |  |



# PROJECT REFERENCES

|  |  |
| --- | --- |
| **Project** | **Description** |
| H Hospital Inventory Optimization Model | Developing a medical inventory optimization model based on hospital pharmacy department records. |
| Retail Inventory Management Solution | Implementing data analytics for inventory management using retail store sales records. |
| Pharmaceutical Supply Chain Optimization | Optimizing pharmaceutical supply chains through data-driven insights from supply chain records. |

# APPROVALS

**Prepared by** Y. Srinivas Jagadeesh\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Manager

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

Project Sponsor

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Executive Sponsor

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Client Sponsor

