**Project Charter Document**



**Project Name:** Medical inventory optimization

**Department:**  Pharma and Healthcare analytics

**Focus Area:** Pharma

**Product/Process:** Business and data understanding, Data collection, EDA, Prediction, Deployment, Maintenance and Monitoring and forecasting modeling.



**Prepared By**

|  |  |
| --- | --- |
| **Document Owner(s)** | **Project/Organization Role** |
| PADMAVATHY D | Intern |
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**Project Charter Version Control**

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change Description** |
| 1.0 | 24/01/2023 | PADMAVATHY D | Document created |
| 2.0 | 29/01/2023 | PADMAVATHY D | updated business problem,objectives and constraints |
| 3.0 | 13/02/2023 | PADMAVATHY D | completed preprocessing andEDA |
| 4.0 | 15/02/2023 | PADMAVATHY D | updated insights for EDA |
| 5.0 | 22/02/2023 | PADMAVATHY D | Used forecasting models |
| 6.0 | 27/02/2023 | PADMAVATHY D | deployed models using stramlit |
| 7.0 | 06/03/2023 | PADMAVATHY D | updated final ppt |

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# 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

* Project goals
* Objectives
* Data prepossessing
* Scope
* Assumptions4444
* Risks
* Costs
* Timeline
* Approach
* Organization



# PROJECT OVERVIEW

The goal of the project is to optimize the inventory to regulate the drugs that are in high demand and minimize zero bounce. In this way we can eliminate the least consumed drugs which incurs loss. Exploratory data analysis and suitable forecasting models have to be used to achieve the goal.



# PROJECT SCOPE

## Goals and Objectives

|  |  |
| --- | --- |
| **Goals** | **Objectives** |
| * Maximize the prediction accuracy according to the drug demand based on seasons | #To do analysis on diseases and drugs based on seasons and which people are most preferring. |

## 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, Model Building for Association and Recommendation | * Deliverable 2.1— EDA and Descriptive Analytics * Deliverable 2.2— Model Building for Association (Fuzzy Algorithm) and Recommendation |
| * Model Evaluation, tuning and insights, Deployment | * Deliverable 3.1— Model Evaluation, tuning and insights. * Deliverable 3. 2— Deployment |
| * Show case and review, Final Presentation and documentation, Handover and KT. | * Deliverable4.1 – show case and review * Deliverable4.2 – Final Presentation and documentation * Deliverable4.3 – Handover and KT |

## Deliverables Out of Scope

* designs
* mobile app

## Project Duration (start date: 24/01/2023 End date: 24/02/2023)

|  |  |  |  |
| --- | --- | --- | --- |
| **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. | [15/09/2021]  -  [21/09/2021] | * 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, Model Building for Association and Recommendation | [22/09/2021]  -  [28/09/2021] | * Deliverable 2.1— EDA and Descriptive Analytics * Deliverable 2.2— Model Building for Association (Fuzzy Algorithm) and Recommendation | [High] |
| * Model Evaluation, tuning and insights, Deployment | [29/09/2021]  -  [05/10/2021] | * Deliverable 3.1— Model Evaluation, tuning and insights. * Deliverable 3. 2— Deployment | [High] |
| * Show case and review, Final Presentation and documentation, Handover and KT. | [06/10/2021]  -  []12/10/2021 | * Deliverable4.1 – show case and review * Deliverable4.2 – Final Presentation and documentation * Deliverable4.3 – Handover and KT | [Medium] |



# PROJECT CONDITIONS

## Project Assumptions

* Work on data which is extracted from public sources.
* Can create a web API by using flask or streamlit.
* Cloud deployment should be done.
* **Robust Tested:** Application should be tested for noise data also.

## Project Issues

**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

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

## Project Constraints

Competitors

Data Availability

Ethical Issues

Lack of marketing strategies



# Project Structure Approach

Data Collection : From Client

Data Pre-processing : Pandas, NumPy, ScikitLearn

Model Building : StatsModels

Deployment : Streamlit

Database Management : MySQL

Programming Language : Python, SQL



# Project Team Organization Plans

|  |
| --- |
| * Deliverable 1.1— * Deliverable 1.2— * Deliverable 1.3— |
| * Deliverable 2.1— * Deliverable 2.2— |
| * Deliverable 3.1— * Deliverable 3. 2— |
| * Deliverable4.1 – * Deliverable4.2 – * Deliverable4.3 – |



# PROJECT REFERENCES

|  |  |
| --- | --- |
| **Milestone** | **Deliverable** |
| [ |  |
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|  |  |

# APPROVALS

**Prepared by** \_\_\_Padmavathy.D\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Intern

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

Project Sponsor

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

Executive Sponsor

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

Client Sponsor



# APPENDICES

## Document Guidelines

## Project Charter Document Sections Omitted

