**Project Charter Document**



**Project Name:** Optimizing Workplace Compliance and Safety

**Industry:** Pharmaceutical

**Department:** Security

**Product/Process:** AI-Powered Safety Monitoring



**Prepared By**

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| **Document Owner(s)** | **Project/Organization Role** |
| Paladugula Dinesh Babu | Associate Data Scientist |
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**Project Charter Version Control**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change Description** |
| 1.0 | 18/01/2025 | Paladugula Dinesh Babu | Document created |
| 2.0 | 12/02/2025 | Paladugula Dinesh Babu | Changes |

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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

* **Business Problem:**

The manual monitoring and reporting and safety incidents and compliance issues is inefficient, prone to delays, and inconsistent due to human error. This process can lead to potential safety hazards, regulatory fines, and increased downtime. The current approach relies on employees to report incidents or track compliance manually, which is labor-intensive and creates bottlenecks in maintaining a safe work environment.

* **Business Objective:**

Maximize Workplace Safety, Maximize Hard Detection

* **Business Constraint:**

Minimize Cost

* **Success Criteria:**
  + ***Business Success Criteria:***Reduce Workplace safety incidents and compliance issue by at least 40% with I the first year.
  + ***Machine Learning Success Criteria:***Achieve a MAPE(Mean Absolute Percentage Error) of less than 10% for detection model.
  + ***Economic Success Criteria:***Reduce the cost by 10%
* 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 30 to 45 days.
* Approach: CRISP-ML(Q) / Data Analytics Project Management Methodology



# PROJECT OVERVIEW

This project uses computer vision to enhance workplace safety by analyzing video footage to detect compliance violations like missing protective equipment or hazardous conditions. The system automates monitoring, provides real-time alerts, and helps reduce workplace accidents.



# 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 |
| * Video analytics, Data Augmentation, Model building for object detection and post estimation | * Deliverable 2.1— Video Analytics, Data Augmentation * Deliverable 2.2— Model building for object detection and post estimation |
| * 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

* Web Application
* Cloud based deployment

## Project Duration (start date: 15/01/2025 End date: 15/02/2025)

|  |  |  |  |
| --- | --- | --- | --- |
| **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. | [17/01/2025]  -  [24/01/2025] | * 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] |
| * Video analytics, Data Augmentation, Model building for object detection and post estimation | [25/01/2025]  -  [31/01/2025] | * Deliverable 2.1— Video Analytics, Data Augmentation * Deliverable 2.2— Model building for object detection and post estimation | [High] |
| * Model Evaluation, tuning and insights, Deployment | [01/02/2025]  -  [11/02/2025] | * Deliverable 3.1— Model Evaluation, tuning and insights. * Deliverable 3. 2— Deployment | [High] |
| * Show case and review, Final Presentation and documentation, Handover and KT. | [12/02/2025]  -  [15/02/2025] | * Deliverable4.1 – show case and review * Deliverable4.2 – Final Presentation and documentation * Deliverable4.3 – 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 AiSPRY for further analysis.
* 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 *– 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** |
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# APPROVALS

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**Approved by** Gayatri

Project Leader

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Executive Sponsor

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Client Sponsor

