

## **User Requirements Document:**

### **OSHA HSE Dashboard**

#### **Objective:**

To provide insights into workplace safety and health compliance by analysing the OSHA HSE dataset for US states in 2015-2017, enabling health and safety stakeholders to identify trends, potential risks, and areas for improvement in workplace safety.

#### **Problems Identified**

The health and safety team has difficulty accessing and analysing OSHA data for actionable insights.

Existing reports do not provide a comprehensive view of workplace safety trends.

#### **Target Audience**

Primary – Occupational health and safety team

Secondary – Operational Managers, HR Managers, and Senior Leadership Team

#### **Use Cases**

Identify Workplace Safety Trends

#### **User Story**

As a Health and Safety Manager, I want to identify trends in workplace safety incidents so that I can develop strategies to mitigate risks and improve safety program in the company I work for.

#### **Acceptance Criteria:**

Display the number of incidents by event type.

Highlight the top 5 nature of injuries.

Provide insights into human factors contributing to incidents.

Allow filtering and sorting by task assignment and year.

**Success Criteria:**

Health and safety team and other Stakeholders can easily identify workplace safety trends and high-risk areas.

Make informed decisions on corrective actions and safety improvements based on data-driven insights.

Achieve improved workplace safety compliance and reduced incident rates.

**Information Needed:**

The key metrics needed include:

- Number of incidents
- Event types
- Nature of injuries
- Human factors
- Task assignments
- Injury degree (fatal vs. nonfatal)

**Data Needed**

The dataset should include the following fields:

Event Date

Degree of Injury

Nature of Injury

Event Type

Human Factor

Task Assigned

**Data Quality Checks**

To ensure the dataset's quality, the following checks will be conducted:

**Column count check:** Ensure all required columns are present.

**Missing data check:** Ensure no Null value in the data needed

### **Additional Requirements**

Document the solution, including data sources, transformation processes, and a walkthrough of analysis conclusions.

Make source code and documentation available on GitHub.

Ensure the solution is reproducible and maintainable to support future updates.

### **Dataset Content Review**

This OSHA HSE dataset contains abstracts of the accidents and injuries of construction workers in USA states from 2015-2017.

This is OSHA data which is publicly available –

<https://www.kaggle.com/datasets/ruqaiyaship/osha-accident-and-injury-data-1517/data>