

# Defect Analysis Dashboard Documentation

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## 1. Overview

The Defect Analysis Dashboard is a Streamlit-based interactive tool designed to analyze and visualize defect tracking data through natural language queries.

## 2. System Requirements

Python 3.8+

Libraries:

streamlit==1.13.0

pandas==1.5.3

matplotlib==3.7.0

seaborn==0.12.2

## 3. Data Structure

Input File: defect\_dataset\_1000.csv

Columns:

- Logged Date: DateTime
- Closed Date: DateTime
- Summary: String
- Severity: String
- Status: String
- Module: String

## 4. Features

- A. Natural Language Query
- B. Visualizations
- C. Data Export

## 5. How to Use

1. Installation: `pip install -r requirements.txt`
2. Run: `streamlit run defect_dashboard.py`

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3. Input queries like 'Show high severity open defects'

### 6. Example Workflow

Sample query processing for accounts payable defects

### 7. Enhancement Guide

How to add new query support and advanced features

### 8. Troubleshooting

Common issues and solutions

### 9. Appendix

References and download links

#### Supported Queries:

Query Type	Example	Response
Defects due today	"defects due today"	Count + table of defects due today
Module-specific	"module Inventory"	Defects in Inventory module
Severity-based	"critical defects"	All critical defects