

# Trainee Analytics Dashboard

A streamlined Shiny dashboard for loading trainee datasets (CSV or Excel), filtering records, exploring summaries, visualizing timelines, and inspecting missing data.

## Overview

This dashboard provides interactive data loading, filtering, summary metrics, distribution plots, a timeline view, and missing-data inspection. It standardizes column names automatically and supports both CSV and Excel uploads with sheet selection.

## Installation

Install required R packages:

```
install.packages(c(  
  "shiny", "shinydashboard", "DT", "dplyr", "ggplot2",  
  "plotly", "lubridate", "readr", "tidyverse", "readxl"  
)
```

## Running the App

If the file is named `app.R`:

```
shiny::runApp("app.R")
```

If the app is inside a folder:

```
shiny::runApp("app")
```

## Data Requirements

The app works best when the dataset includes fields such as: - `Mentor` - `Status` - `Department` - `Start.Date` / `End.Date`

Dates in standard formats (`mdy`, `ymd`) are parsed automatically.

## Missing Data Tools

The dashboard detects blanks and common placeholders such as `N/A` and `Unknown`, visualizing missing values in a heatmap. A table of rows containing missing fields is generated and can be downloaded.

## Developer Notes

- `data_raw()` handles file import and column-name normalization.
- `data_filtered()` applies all user-selected filters.
- Excel files are read with `readxl::read_excel()`.
- CSV files use `readr::read_csv()`.
- Timeline plots are created with `ggplot2` and made interactive via `plotly::ggplotly()`.

## Project Structure

<code>app.R</code>	Main Shiny application
<code>README.md</code>	Documentation

## License

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