Timeline App – Standard Operating Procedure (SOP) / User Guide

1. Overview

The Timeline App is a Streamlit-based tool designed to help users:

- Upload program and module schedules in CSV format

- Validate dates and entries

- Calculate durations of programs and modules

- Display interactive timelines with detailed module information

- Account for **South African public holidays** when computing working days

This guide explains **how to prepare your data, upload it, and interpret the timeline results**.

2. CSV Data Format

The CSV file must contain the following columns:

Column Name	Description
Program Name	Name of the program
Program Start Date	Start date of the program (YYYY-MM-DD)
Program End Date	End date of the program (YYYY-MM-DD)
Dec Shutdown Start	Start date of December shutdown (YYYY-MM-DD)
Dec Shutdown End	End date of December shutdown (YYYY-MM-DD)
Block/Module Name	Name of the module/block within the program

Block Start Date   Start date of the module (YYYY-MM-DD)

Block End Date   End date of the module (YYYY-MM-DD)

Notes:

- All dates should follow the YYYY-MM-DD format.

- Each module's dates **must fall within the program start and end dates**.

- Program and block names **cannot be empty**.

- The CSV headers must match exactly as listed above.

Example row:

Program Name	Program Start Date	Program End Date	Dec Shutdown Start	Dec Shutdown End	Block/Module Name	Block Start Date	Block End Date
Data Science	2025-01-05	2025-03-31	2025-12-01	2025-12-10	Module 1	2025-01-05	2025-01-20

3. Uploading the CSV

1. Navigate to the **Upload CSV** section in the app.

2. Click the **"Browse files"** button and select your CSV.

3. The app will automatically validate the data:

   - Missing headers

   - Invalid or empty names

   - Module dates outside program dates

   - Modules overlapping with shutdown periods

4. If invalid entries are detected, the app will prompt you to **correct or enter valid values**.

5. Click **Submit** after making changes to validate again.

6. Once all validations pass, the data is saved for use in the Timeline section.

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4. Interpreting the Results

Timeline Overview

- Shows a table of all programs and modules.

- Columns include:

    - Program/Block start and end dates

    - Duration (automatically displayed in **best unit**: days, weeks, or months)

- Click on a module row to view **detailed information**.

Detailed Module View

For the selected module:

1. **Module Info**

    - Displays program name, block/module name, start and end dates (date-only), and duration.

2. **All Dates Covered in Module**

    - Lists every date within the module's duration.

    - Includes the **day of the week** for each date.

    - Holidays and weekends are considered in workday calculations.

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5. Notes & Best Practices

- Ensure **dates are correct and consistent** with the program schedule.

- Use the CSV template to avoid missing headers.

- December shutdown periods are automatically validated; modules cannot overlap these dates.

- For large datasets, use the **search and sorting features** in the timeline table for easier navigation.

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6. Troubleshooting

Issue	Solution
CSV headers do not match	Check the template and rename columns exactly as required
Dates not in YYYY-MM-DD format	Reformat dates in Excel or Google Sheets before uploading
Module dates outside program range	Correct module start/end dates to fall within program dates
Overlaps with shutdown period	Adjust module start/end dates when prompted by the app
Blank Program or Module names	Enter valid names when prompted

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7. Support

For assistance, contact:
 Your Name – dowelanikhumbelo@gmail.com
 GitHub – [Repository Link](#)