

# Test Plan – COVID-19 Cases Tracker

## 1. Project Overview

The COVID-19 Cases Tracker is a **Python-based desktop application** using **Tkinter** that scrapes real-time data from [worldometers.info](https://worldometers.info). It allows users to enter a country name, fetch its COVID-19 data, display a notification, and save the data in multiple formats (CSV, JSON, HTML).

## 2. Objectives

- Validate GUI input and buttons
- Ensure accurate data scraping and parsing
- Verify file export formats and content
- Check system response to invalid inputs and connectivity issues

## 3. Scope of Testing

- **GUI validation** (input fields, buttons, notifications)
- **Functional testing** (data fetch, export)
- **Data validation** (scraped vs. source data)
- **Negative testing** (no input, wrong input, no internet)
- **Usability testing** (label clarity, button accessibility)

## 4. Testing Types

- **Manual Testing**
- **Functional Testing**
- **Smoke Testing**
- **Boundary & Negative Testing**
- **Compatibility Testing**

## 5. Tools & Technologies

- **Python** (Tkinter, Pandas, BeautifulSoup)
- **Manual Testing**
- **File system access** for export testing

## 6. Test Environment

- **Windows 10/11 with Python 3.x installed**
- **Stable internet connection** for scraping

- **Directory access** for saving files

## 7. Roles & Responsibilities

Role	Responsibility
QA Engineer	Write test cases, execute tests, report bugs
Developer	Fix bugs, maintain scraping logic, GUI
Reviewer	Review test documentation and suggest improvements

## 8. Test Deliverables

- **Test Plan**
- **Test Cases** (with ID, steps, expected/actual results)
- **Bug Report** (with screenshots, severity/priority)
- **Test Summary Report** (test coverage, pass/fail rate)

## 9. Risks & Mitigation

Risk	Mitigation
Website structure changes	Add validation checks and log unexpected tags
Internet not available	Display friendly error message
File path issues	Use try/except during export

## 10. Exit Criteria

- All major bugs resolved
- Minimum 90% test cases passed
- File formats exported and verified