

Performance Testing

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Project Name: Comprehensive Analysis and Dietary Strategies with Tableau – A College Food Choices Case Study

Maximum Marks: []

1. Performance Testing Objectives

- Verify the efficiency of the Python data processing pipeline.
- Test dashboard responsiveness and functionality under filters and Story mode.
- Validate consistency between cleaned and raw datasets.
- Assess local browser or Flask deployment performance (if used).

2. Test Environment

Component	Tool/Platform
Data Cleaning	Python 3.x (Jupyter/PyCharm)
Dashboard	Tableau Public
System Specs (Tested)	8 GB RAM, i5 Processor
Web Display (Optional)	Flask local deployment
Browser Used	Edge

3. Test Plan

Test Case ID	Description	Expected Result	Status
TC001	Run Python script on raw Excel data	Data decoded and cleaned correctly	✓ Pass
TC002	Load dashboard in Tableau	Loads quickly without errors	✓ Pass
TC003	Apply filters (gender, diet)	Filters respond correctly and instantly	✓ Pass
TC004	Navigate Story dashboard panels	Smooth transitions	✓ Pass
TC005	Export dashboard as PDF	Export includes all visual elements	✓ Pass
TC006	Run Flask dashboard (if used)	Opens in browser with full layout	✓ Pass
TC007	GitHub repository access	Code and data available for	✓

Test Case ID	Description	Expected Result	Status
		review	Pass

4. Observations & Issues

- Python cleaned over 2000 entries in under 2 seconds.
- Tableau filters work efficiently and intuitively.
- Exported dashboards preserved design and layout.
- Optional Flask view worked well with local hosting.
- No critical errors or slowdowns reported.

5. Suggestions & Improvements

- Host final dashboard via Tableau Public or institutional site.
- Optional: Improve Flask UI for mobile display.
- Consider logging system performance (RAM/CPU usage) in future tests.

6. Evidence Included

- ✓ Screenshot of dataset (before & after cleaning)
- ✓ Dashboard screen recordings
- ✓ Exported PDF of dashboard
- ✓ Screenshot of Flask server dashboard