

Project Plan: Rule Validation App



Application Objective

The app validates trading data from CSV files against a fixed set of rules (provided by you).

For each rule, the app must show:

- whether it was **passed**, **violated**, or **not testable**,
- which trades are affected, and
- a clear explanation of why it was flagged.

The app will be developed as a **Streamlit web application** in **Python**.



Core Features

1.

Upload and Selection

The user can:

- Upload one or more CSV files (each representing one phase or account)
- Select the **account type**:
 - 2-Step Challenge Phase 1
 - 2-Step Challenge Phase 2
 - 2-Step Challenge Funded Phase
 - Direct Funding
- Select the **account size**:
 - 5,000, 10,000, 20,000, 25,000, 35,000, 50,000, 100,000, 150,000, 200,000

- Optionally enable the **Add-on: News Trading and Weekend Holding**
-

2.

Automatic Configuration

The app must automatically load the correct internal configuration for **margin, leverage, and contract sizes** depending on the account type.

Example configuration:

Account Type	Leverage	Contract Size	Notes
2-Step Phase 1	1:100	Standard per broker	Add-on not allowed
2-Step Phase 2	1:100	Standard per broker	Add-on not allowed
Funded Phase	1:50	Standard per broker	Add-on optional
Direct Funding	1:30	Standard per broker	Add-on optional

These configurations must be stored in the backend as constants so that margin and risk rules can be calculated automatically.

3.

CSV Validation

Before analysis, the app checks that:




- All required columns are present (Open Time, Close Time, Position ID, Side, Instrument, Lots, Open Price, Close Price)
 - All time values are valid
 - Numerical fields are parsable
 - Open Time < Close Time (if not, swap and mark)
 - At least **95% of all rows** are valid (otherwise, abort with an error list)
-

4.

Rule Evaluation

The app tests each rule individually.

Each rule has one of the following three outcomes:

Status	Meaning
 Passed	No violation detected
 Violated	Clear rule violation
 Not testable	Missing data (e.g. only one phase uploaded)

Example:

If only Phase 1 is uploaded, Rule 3 (Strategy Consistency) → “Not testable.”

5.

News and Weekend Validation

News Trading (Rule 18)

If the **Add-on is OFF**, the app:

- Retrieves live news data from **ForexFactory.com** (API or web scraper)
- Compares each trade's open and close times with news release times
- If a trade opens or closes **within ±5 minutes (300 seconds)** of a relevant news release → **Violation**
- Only checks news affecting the instrument's base or quote currency (e.g., USD for XAUUSD, EUR for EURUSD, etc.)

Weekend Rule (Rule 19)

If the **Add-on is OFF**:

- Weekend window = **Friday 22:00 UTC → Sunday 22:00 UTC**

- If a trade is opened, closed, or held open during this window → **Violation**
- The app uses timezone-aware calendar logic (datetime + pytz) to detect weekends correctly.

If the Add-on is **ON**, both Rules 18 and 19 are skipped.




6.

Results Display (Frontend)

In the Streamlit dashboard:

- One main table summarizing all rules:

| Rule | Name | Status | Description | Affected Trades |

- Color code:
 -  Green = Passed
 -  Red = Violated
 -  Yellow = Not testable
- Below the table:
 - A **plain text summary** of all detected violations
 - Example:

“On 12/09/2025, a hedging violation was detected on XAUUSD between Ticket 123 and 124, overlapping for 45 seconds.”

7.

Export Functions

User can export results as:

- **CSV file** (for data review)
- **PDF report** including:
 - Title (e.g., “Rule Analysis – 100K Account Phase 2”)
 - Summary table of all rules

- Detailed rule explanations
 - Full-text summary of all violations
-

8.

Error Handling and Logging

If a rule cannot be evaluated (missing data, only one phase, etc.), the app must not crash.

It displays a message such as:

⚠️ “Rule 3 – Strategy Consistency not testable because only one phase provided.”

Logs should always include:

- Which file caused the issue
 - Which rule was affected
 - What exactly is missing (e.g., “No Stop-Loss values found”)
-

9.

Technical Specifications

Framework:

- Streamlit (frontend + backend logic)

Language:

- Python 3.11 or higher

Recommended Libraries:

- pandas – data analysis
- numpy – calculations

- datetime, pytz – timezone logic
 - requests, BeautifulSoup – ForexFactory news retrieval
 - fpdf2 or reportlab – PDF export
 - streamlit-aggrid – interactive data tables
 - matplotlib or plotly – optional chart visualization
-



Additional Logic (Important)

- All timestamps must be converted to **UTC** internally, displayed in **Europe/Zurich**.
 - A time overlap counts as simultaneous if the intervals overlap by **≥ 1 second**.
 - Global tolerances:
 - Time: ± 1 second
 - Price: ± 0.00001
 - Lot size: ± 0.0001
-



Operational Workflow

1. User opens the app
 2. Selects account type, size, and Add-on (Yes/No)
 3. Uploads one or more CSV files (e.g., Phase 1, 2, Funded)
 4. App reads and validates all files, groups data by phase
 5. App executes all active rules
 6. Displays results in the dashboard
 7. Allows export as CSV or PDF
-



Trading Rulebook (Final Version)

Rule 1 – Hedging Ban

It is strictly forbidden to hold Long and Short positions on the same instrument at the same time, across any accounts.

An overlap occurs if the duration of opposing trades overlaps by **1 second or more**.

If one position closes exactly before the other opens → allowed.

If any overlap ≥ 1 second → **Violation**.

Rule 3 – Strategy Consistency

Trading behavior must remain consistent between Evaluation and Funded phases.

Metrics compared:

1. Median trade duration (seconds)
2. Average trades per day
3. Median risk per trade (% of account)

If at least **2 of 3 metrics** differ by $\geq 200\%$ between phases → **Violation**.

If any phase has fewer than **20 trades** → **Not testable**.

Rule 4 – Prohibited Third-Party Strategies (EAs)

Use of prebuilt, purchased, or automated trading systems is **forbidden in all phases**.

A violation occurs if:

- at least **10 trades** have identical patterns:
 - Stop-Loss distance difference ≤ 0.00001
 - Take-Profit distance difference ≤ 0.00001
 - Holding duration difference ≤ 1 second
 - Lot size difference ≤ 0.0001
- and these trades occur across **3 or more distinct days**.

The pattern may occur on a **single symbol**; multiple symbols are not required.

If these conditions are met → **Violation**.

Rule 12 – All-or-Nothing Trading

No single trade or grouped trade idea may risk the entire account.

If the total risk of the idea (based on Stop-Loss distances and trade sizes) is $\geq 100\%$ of account equity → **Violation**.

If no Stop-Loss is set → **Not testable** (but not counted as violation).

Rule 13 – Maximum Margin Usage (80%)

Used margin must **never exceed 80%** of account equity.

If margin usage $> 80.1\%$ → **Violation**.

Otherwise → **No violation**.

This ensures at least 20% equity reserve.

Rule 14 – Gambling Definition

If **more than 50%** of all trades are held for **less than 60 seconds**, the account is classified as gambling → **Violation**.

If 50% or fewer are under 60 seconds → **No violation**.

Tolerance: ± 1 second.

Rule 15 – One-Sided Bets

A trader may not have more than **2 trades open simultaneously in the same direction (Long or Short)** on the same symbol.

If **3 or more** same-direction trades overlap in time → **Violation**.

Otherwise → **No violation**.

Rule 16 – Abuse of Simulated Environment

Within any **24-hour period**, total traded volume must not exceed **10× account equity**.

If within that period $\geq 80\%$ of trades were opened **without a Stop-Loss** and total volume $\geq 10\times$ equity \rightarrow **Violation**.

If one condition fails \rightarrow **No violation**.

Rule 17 – Max 2% Risk per Trade Idea (Direct Funding only)

Applies only to **Direct Funding** accounts.

A **trade idea** is defined as multiple trades on the same symbol and direction (Long or Short) where the time gap between openings is ≤ 5 minutes (≤ 60 seconds for XAUUSD).

Total risk of all trades in the idea = (entry-to-Stop-Loss distance \times position size \times value per point).

If risk $> 2.05\%$ of equity at first entry \rightarrow **Violation**.

If $\leq 2\%$ \rightarrow **No violation**.

Rule 18 – News Trading Restriction

Trading within **5 minutes (300 seconds)** before or after a relevant economic news release is forbidden.

Applies to manual and automatic executions (including SL/TP).

If **Add-on = OFF** and trade falls in this window \rightarrow **Violation**.

If **Add-on = ON** \rightarrow **No violation**.

Rule 19 – Weekend Trading and Holding

From **Friday 22:00 UTC to Sunday 22:00 UTC**, opening, closing, or holding positions is strictly prohibited.

If a position is active or modified during this window → **Violation**.

If **Add-on = ON** → **No violation**.

Rule 23 – Minimum Trading Days

- **2-Step Challenge Phases 1 & 2:** No minimum → **Always Pass**.
- **2-Step Challenge Funded Stage:** At least **4 active trading days** required.
 - Fewer than 4 → **Violation**.
- **Direct Funding:** At least **7 active trading days** required.
 - Fewer than 7 → **Violation**.