

# Google AntiGravity: RSI Tracker Workflow

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## 1. Overview

This document outlines the automated workflow for the **Daily RSI Tracker**. The system calculates Relative Strength Index (RSI) for a list of stocks, checks for corporate actions (splits/bonuses), adjusts historical prices, and sends actionable trading signals via Telegram.

## 2. How to Run (Manual/Local)

To execute the entire process manually on your local system:

1. Navigate to the `Google AntiGravity` folder.
2. Double-click the file named `Run_NSE_WorkFlow.bat`.
3. A black window will open and show the progress of all 7 steps.
4. Once finished, you will receive a notification on Telegram.

## 3. Workflow Steps

The master script (`main_orchestrator.py`) runs the following 7 steps in order. If any step fails, the process stops immediately to prevent data corruption.

### Step 1: Download Data

**Script:** `1_NSE_bhavcopy_downloader.py`

**Location:** `NSE Bhavcopy/`

**Action:** Connects to the NSE website and downloads the daily "Bhavcopy" (Daily Market Report) for the current date. If today is a holiday, it skips downloading.

### Step 2: Update Stocks

**Script:** `2_Script_Wise_Updater.py`

**Location:** `NSE Bhavcopy/`

**Action:** Reads the downloaded Bhavcopy and updates the individual history file for each stock (e.g., updating `RELIANCE.csv` with today's candle).

## Step 3: Check Corporate Actions

**Script:** `3.1_NSE_corporate_actions.py`

**Location:** `NSE Bhavcopy/`

**Action:** Checks NSE for any new Splits or Bonus issues declared by companies.

## Step 4: Generate Adjustments

**Script:** `3.4_generate_adjustments.py`

**Location:** `NSE Bhavcopy/`

**Action:** If a Split/Bonus is found, it calculates the "Adjustment Factor" (e.g., for a 1:1 bonus, factor is 0.5).

## Step 5: Apply Adjustments

**Script:** `4_Update_Adjustment_Prices.py`

**Location:** `NSE Bhavcopy/`

**Action:** Rewrites the historical price data for affected stocks. This ensures the RSI calculation is mathematically correct and not distorted by price drops due to splits.

## Step 6: User Strategy & RSI

**Script:** `Script_RSI_Calculator_Adjusted.py`

**Location:** `Script RSI Calculation/`

**Action:**

Calculates Daily (14), Weekly (14), and Monthly (14) RSI.

Applies your specific trading strategies (Value Buy, GFS, AGFS).

Generates the `Script_RSI_Strategy_Signals.csv` file.

## Step 7: Notify

**Script:** `Telegram_Bot_Sender.py`

**Location:** `Telegram Integration/`

**Action:** Formats the Signal List into a neat table and sends it to your configured Telegram Groups.

## 4. Troubleshooting

If the batch file closes with an **ERROR** message:

1. **Check Internet:** Ensure you are connected to the internet (required for NSE download and Telegram).
2. **Check Holiday:** If it's a market holiday, the downloader might report "No Data," which is normal.
3. **Check Telegram Token:** If only the last step fails, valid your `telegram_credentials.json` file.