**Instructions for Gainers and Losers Monitoring Script**

**Overview**

This script monitors both the top gainers and top losers on Binance in real-time. It uses predefined thresholds to identify significant price movements and sends notifications with actionable insights.

**Key Features**

**1. Dual Monitoring**

* Tracks the **top 20 gainers** and **top 20 losers** on Binance based on their 24-hour percentage change.
* Provides separate monitoring strategies for gainers (rising prices) and losers (falling prices).

**2. Monitoring Criteria**

* **Percentage Thresholds:**
  + Monitors price changes of 2%, 3%, 4%, 5%, 6%, and 7%.
* **Timeframes:**
  + Tracks price changes over 1-minute, 5-minute, and 15-minute intervals.

**3. Notification Management**

* Sends a maximum of three notifications per token within a 2-hour window:
  + One notification for crossing the 1-minute threshold.
  + One notification for crossing the 5-minute threshold.
  + One notification for crossing the 15-minute threshold.
* Notifications reset after 2 hours, allowing new alerts for the same token.
* Prevents duplicate notifications if a token’s price fluctuates rapidly within the same timeframe.

**4. Technical Indicators for Insights**

* **Indicators Used:**
  1. Moving Averages (MA7, MA25, MA99)
  2. MACD (Moving Average Convergence Divergence)
  3. RSI (Relative Strength Index)
  4. Volume Trend (current volume vs. 20-period average)
* **Purpose:**
  1. To analyze market trends and provide recommendations.
  2. Aligns multiple indicators for stronger validation.

**5. Recommendation and Confidence Levels**

* Generates one-word actionable insights: **BUY**, **SELL**, or **WAIT**.
* Adds a confidence percentage (e.g., 80%) based on the alignment of indicators:
  + Higher confidence (≥70%) when most indicators align.
  + Lower confidence (<50%) if indicators show contradictory signals.

**6. Gainers and Losers Logic**

* **Gainers (Rising Prices):**
  + Looks for significant upward price movements.
  + Insights prioritize “BUY” signals if indicators align positively.
* **Losers (Falling Prices):**
  + Identifies substantial downward price changes.
  + Insights prioritize “SELL” signals if indicators align negatively.

**7. Efficiency and Automation**

* Automatically fetches top gainers and losers data at regular intervals.
* Uses a cooldown mechanism to manage notification frequency efficiently.
* Supports continuous monitoring without manual intervention.

**Notifications**

* **Structure:**
  + Includes alert type (Gainer or Loser), symbol, percentage change, timeframe, current price, recommendation, and confidence level.
  + Provides a concise summary of key technical indicators.
* **Sample Notification:**
  + “🚀 *Gainer Alert!*
    - *Symbol:* MAGIC/USDT
    - *Change:* +3.00% in the last 5 minutes.
    - *Current Price:* 0.123456 USDT
    - *Recommendation:* BUY (85%)
    - *Indicators:* MA7: 0.120000, MA25: 0.115000, MACD: 0.005000, RSI: 60.00, Volume: 15000.00”

**Customization Options**

1. **Adjustable Thresholds:**
   * Modify percentage thresholds (e.g., 1% to 10%).
   * Add or remove monitoring intervals (e.g., 30 minutes).
2. **Notification Reset Time:**
   * Change the cooldown period (default: 2 hours).
3. **Technical Indicators:**
   * Add new indicators like Bollinger Bands, ATR, or Parabolic SAR for enhanced analysis.
4. **Number of Tokens Monitored:**
   * Expand or reduce the top gainers and losers list (default: top 20).

**Purpose and Benefits**

* Helps identify trading opportunities in both rising and falling markets.
* Combines multiple technical indicators for accurate and actionable insights.
* Efficiently manages notificatios to avoid spam while providing timely alerts.

**Updated Instructions for Gainers and Losers Monitoring Script**

**Key Adjustments and Enhancements**

**1. Early Detection Improvements**

* Focus primarily on the **1-minute chart** for earlier trend detection.
* Reduce the percentage gain thresholds to trigger alerts:
  + **New thresholds for 1-minute chart:** 0.5%, 1%, 1.5%, 2%, etc.
  + **For 5-minute and 15-minute charts:** Retain existing thresholds (2%-7%).

**2. Volume Surge Alerts**

* Monitor sudden increases in volume that may precede significant price movements.
  + **Alert Condition:** Volume increases by 50% or more compared to the average of the last 20 candles.

**3. Additional Indicators for Trend Detection**

* **Stochastic RSI:**
  + Detect oversold conditions on the 1-minute chart.
  + Trigger a BUY alert when Stochastic RSI crosses above 20.
* **ADX (Average Directional Index):**
  + Track trend strength.
  + Include alerts when ADX crosses above 20, indicating a strong trend.
* **Parabolic SAR:**
  + Notify when the SAR indicator flips below the price (bullish signal) or above the price (bearish signal).

**4. Wick/Tail/Shadow Analysis**

* Incorporate candle wick patterns into the analysis:
  + Detect longer wicks relative to candle height during a trend.
  + **Bullish Trend:** Small green candles with longer upper wicks indicate potential trend reversal.
  + **Bearish Trend:** Small red candles with longer lower wicks indicate potential trend reversal.
  + Combine wick length with overall candle height for better accuracy.

**5. Dynamic Confidence Scoring**

* Adjust confidence percentages dynamically based on:
  + Early detection.
  + Alignment across multiple indicators (e.g., Stochastic RSI, ADX, MA crossovers).
  + The presence of confirming wick patterns.
* Confidence levels:
  + **High Confidence (70%-90%):** Strong indicator alignment and volume confirmation.
  + **Medium Confidence (50%-70%):** Some alignment but mixed signals.
  + **Low Confidence (<50%):** Contradictory indicators or weak confirmation.

**6. Pre-Buy Early Signal Alerts**

* Add a feature to notify when a potential BUY condition is forming but not fully aligned yet:
  + Example: "Potential BUY forming on 1-minute chart with 60% confidence."

**7. Combined Timeframe Insights**

* Analyze 1-minute, 5-minute, and 15-minute charts together to:
  + Confirm trends across multiple timeframes.
  + Prioritize the 1-minute chart for scalping opportunities.

**8. Notification Cooldown Adjustments**

* Reduce the notification cooldown period for the 1-minute chart:
  + Reset alerts every 15 minutes (instead of 2 hours).
  + For 5-minute and 15-minute charts, retain the 2-hour reset period.

**Wick Pattern Insights**

**1. Bullish Wick Patterns:**

* Long lower wick with a small body (green or red) indicates buying pressure.
* Consecutive long lower wicks during a downtrend signal potential reversal to the upside.

**2. Bearish Wick Patterns:**

* Long upper wick with a small body (green or red) indicates selling pressure.
* Consecutive long upper wicks during an uptrend signal potential reversal to the downside.

**3. Combined Candle Height and Wick Analysis:**

* During a trend, smaller candle bodies combined with longer wicks signal potential exhaustion and trend reversal.
* Alerts should include wick-related insights in addition to technical indicators.

**Notification Enhancements**

* Include wick analysis in notifications to indicate potential trend changes.
  + Example:
    - "🚀 *Gainer Alert!*
      * *Symbol:* SYN/USDT
      * *Change:* +1.50% in the last 1 minute.
      * *Current Price:* 0.7211 USDT
      * *Recommendation:* BUY (85%)
      * *Indicators:* MA7: 0.7200, MACD: 0.0050, RSI: 60.00, Volume: 15000
      * *Wick Insight:* Long upper wick detected, watch for possible trend reversal."

**Final Enhancements**

1. Adjust logic to prioritize earlier trend detection.
2. Integrate wick analysis for more accurate alerts.
3. Refine confidence scoring to reflect all new insights.
4. Allow users to test and fine-tune wick-based alerts for their strategies.

**Next Steps**

* Update the script with these changes.
* Test the enhanced alert system with live market data.
* Evaluate the accuracy and adjust parameters based on real-world performance.

**Updated Instructions for Gainers and Losers Monitoring Script**

**Key Adjustments and Enhancements**

**1. Early Detection Improvements**

* Focus primarily on the **1-minute chart** for earlier trend detection.
* Adjust alert times for increased sensitivity:
  + **New timeframes:** 1 minute, 3 minutes, 5 minutes, and 7 minutes.
  + Launch alerts slightly earlier:
    - Alerts at **1 minute minus 15 seconds**.
    - Alerts at **3 minutes minus 15 seconds**.
    - Alerts at **5 minutes minus 15 seconds**.
    - Alerts at **7 minutes minus 15 seconds**.

**2. Expanded Token Monitoring**

* Increase the number of tokens monitored:
  + **60 gainers** and **40 losers**.

**3. Dormant Token Monitoring for Sudden Activity**

* Introduce enhanced sensitivity at the beginning of each hour (e.g., **1:59:30 AM**):
  + Look for a sudden large green candle (3x the size of previous candles, whether green or red) on the **1-minute chart**.
  + Identify cumulative percentage gains quickly increasing from **0.5% to 5%** within **1-2 minutes**.
  + Combine observations with:
    - **Bigger volumes**.
    - **Higher RSI**.
    - **Improved MACD.**
  + Aim to detect dormant tokens experiencing sudden buying surges.

**4. Improved Candle Pattern Analysis**

* **Engulfing Green Candle:**
  + Include as a critical factor in decision-making.
  + Specifically monitor when a bearish trend moves sideways or shows smaller red candles (hammerstick effect).
* **Double Green Candle Effect:**
  + Treat two consecutive green candles (combined size double the previous red candle) as equivalent to a green engulfing candle.
  + Validate with higher volumes and a sideways or weakening bearish trend.
* Apply this sensitivity throughout the day, not just during specific hours.

**5. Improved MA Indicator Monitoring**

* Enhance monitoring for MA7, MA25, and MA99 (or lower numbers for the 1-minute timeframe).
* Focus on:
  + Shortest MA bouncing off larger MAs during upward trends and continuing the trend.

**6. Wick/Tail/Shadow Analysis**

* **End of Upward Trend:**
  + Smaller green candle bodies with longer upper wicks signal potential trend reversal.
  + Incorporate this observation into decision-making and confidence levels.

**7. Notification Enhancements**

* Remove MA indicators from notifications/insights.
* Include:
  + Candle pattern observations.
  + Volume trends.
  + Sudden activity alerts for dormant tokens.
* Adjust confidence levels dynamically based on all the above factors.

**Final Enhancements**

1. Refine notification timings and sensitivity for earlier alerts.
2. Expand token coverage and dormant token detection.
3. Integrate enhanced candle and wick pattern analysis.
4. Continuously adjust decision-making logic based on the latest observations and trends.

**Proposed Improvements:**

**1. Focus on the 1-Minute Chart for Alerts**

* The **1-minute timeframe** is more sensitive to changes, which allows for earlier detection of trends.
* Reduce reliance on the **5-minute timeframe** for scalping since it introduces a delay in trend detection.

**2. Adjust Percentage Gain Thresholds**

* Lower the percentage change required for alerts (especially on the 1-minute chart) to capture the start of a trend.
* Example:
  + **Current:** 2%, 3%, 4%, etc.
  + **Proposed for 1-minute chart:** 0.5%, 1%, 1.5%, 2%, etc.
* This ensures you get notified earlier when the price begins moving.

**3. Introduce Volume Surge Alerts**

* A sudden increase in trading volume often precedes price movements.
* Add **volume surge detection** to complement price change detection. For example:
  + Notify if volume increases by 50% or more compared to the average of the last 20 candles.

**4. Use Additional Indicators for Early Trend Detection**

* Implement **Stochastic RSI**:
  + Detect oversold conditions early and alert when the indicator crosses above 20 (bullish signal).
* Use **ADX (Average Directional Index)**:
  + Monitor the strength of a trend. Notify if ADX crosses above 20 alongside other bullish signals.
* Add **Parabolic SAR**:
  + Highlight potential entry points when the SAR indicator flips below the price.

**5. Combine Shorter and Longer MA Crossovers**

* Use a faster-moving average pair (e.g., **MA3 vs. MA7**) to detect very early crossovers, combined with existing MA7 vs. MA25 for confirmation.
* Example:
  + Notify if MA3 crosses above MA7 (bullish), even before the larger MAs align.

**6. Dynamic Confidence Adjustment**

* Instead of assigning a **100% confidence** score based purely on aligned indicators, weight the confidence dynamically based on:
  + How early the signal is detected.
  + The alignment across **multiple timeframes** (e.g., 1m and 5m charts).
  + The strength of supporting indicators like volume or RSI.

**Proposed Adjustments to the Script:**

1. **Lower Thresholds for Price Change:**
   * Reduce to **0.5% increments** on the 1-minute chart.
2. **Add Volume Surge Detection:**
   * Notify if volume spikes by **50% or more** over the average of the last 20 candles.
3. **Integrate Additional Indicators:**
   * Include **Stochastic RSI, ADX, and Parabolic SAR** for more precise early trend detection.
4. **Dynamic Confidence Calculation:**
   * Adjust confidence scores based on:
     + Early detection.
     + Alignment across indicators and timeframes.

**Addressing the 1-Minute Issue**

1. **1-Minute Alerts Fixed**:
   * Adjusted the monitoring loop and thresholds to ensure **1-minute alerts** are generated without delays.
   * Improved the **priority mechanism** so the 1-minute alert has top sensitivity.
2. **Timeframe Hierarchy**:
   * Alerts are only sent for **1-minute, 2-minute, or 3-minute timeframes**.
   * If a token is notified at a lower timeframe (1 minute), **higher timeframes (e.g., 2 or 3 minutes)** for that token are skipped until the reset period (2 hours).
3. **Sensitivity Improvement**:
   * Added logic to prioritize **1-minute gains/losses** more aggressively while ensuring reliable thresholds to avoid false positives.

 **Enhanced Confidence Calculation**.

 **Fixed 1-Minute Notification Issue**.

 **Ensured Only USDT-Paired Tokens**.

 **HPP Tokens Identified Dynamically**.

 **Improved Notification Message Format**.

**Example Notification:**

HPP

B (Green) or S (Red)

Confidence: XX%

Timeframe: Xm

Price Range: X – X

Price Now: X