project: "Multi-Platform Tech News Automation System - Oracle Cloud Edition [PERFECT VERSION]"

description: |

Fully automated system that fetches brand-new tech news in real-time,

filters duplicates/irrelevant content, and instantly posts across

Twitter (X), Telegram, and Facebook Page.

Includes AI auto-replies, likes, comments, retweets, hashtags, cross-promotion,

backup, and analytics. Twitter automation is done via persistent browser session

(NOT Twitter API) → no posting limits. All behavior is adjustable via admin panel.

Everything runs on Oracle Cloud Free Tier forever.

PERFECT error handling and 100% niche-flexible.

platforms:

twitter:

features:

- instant real-time posting

- post text, images, videos

- smart threading system (auto-break long posts based on character limit)

- trending hashtags auto-add (niche-filtered)

- AI auto-replies to comments (only replies on OUR posts, context-aware)

- auto-like posts from selected accounts (niche-filtered)

- retweet relevant big accounts/content (adjustable frequency)

- auto-comment on selected accounts' new posts (niche-filtered)

- cross-link to other platforms

- unlimited posts (no API limits, persistent browser session)

- natural human-like delays between actions

character\_management:

- configurable\_word\_limit: adjustable (default: 280, premium: 25000)

- auto\_threading: true

- thread\_strategy: "AI-powered smart breaking via Groq"

- thread\_numbering: "1/n format"

telegram:

features:

- instant real-time posting

- post text, images, videos

- long posts auto-threaded meaningfully

- occasional polls (few times a week, only important updates)

- cross-link to other platforms

- natural human-like delays

- no character limits (advantage over Twitter)

facebook\_page:

features:

- instant real-time posting

- post text, images, videos

- formatted for engagement

- cross-link to other platforms

- natural human-like delays

- no character limits (advantage over Twitter)

content\_sourcing:

sources:

- tech RSS feeds (editable list)

- tech APIs (HackerNews, TechCrunch, NewsAPI, etc.)

filters:

- skip old news

- skip already-posted content

- skip irrelevant content (non-niche or outside chosen keywords)

posting\_mode: "REAL-TIME immediate on new release"

advanced\_deduplication:

content\_similarity:

- text similarity detection (80%+ = duplicate)

- title matching with variations

- keyword density analysis

- semantic similarity (AI-powered via Groq)

cross\_source\_checking:

- same story from multiple RSS feeds

- different headlines, same content

- time-based clustering (same topic within 2 hours)

smart\_filtering:

- keep highest quality version

- prefer original source

- merge multiple perspectives into thread

engagement:

ai\_auto\_replies:

provider: "Groq (free, 3 rotating keys)"

context\_aware: true

max\_replies\_per\_post: adjustable

no\_source\_mention: true

auto\_engagement\_on\_selected\_accounts:

auto\_like:

enabled: true

list\_of\_accounts: adjustable

filter: "only niche-related posts"

daily\_limit: adjustable

delay: "human-like delay before like"

auto\_retweet:

enabled: true

list\_of\_accounts: adjustable

filter: "only niche-related posts"

daily\_limit: adjustable

delay: "human-like delay before retweet"

auto\_comments:

enabled: true

list\_of\_accounts: adjustable

filter: "only niche-related posts"

comment\_style: "AI-generated, natural, within limits"

delay: "human-like delay before comment"

daily\_limit: adjustable

hashtags:

enabled: true

strategy:

- fetch Twitter trending

- filter: only niche-related hashtags

- fallback: predefined niche hashtags

- hashtag\_list: editable

cross\_promotion:

include\_links\_between\_platforms: true

store\_links\_in\_config: true

niche\_flexibility:

editable\_everything:

- niche\_keywords: fully editable list

- target\_accounts: fully editable list

- hashtag\_filters: fully editable

- content\_filters: fully editable

- ai\_tone\_presets: fully editable

- banner\_text: fully editable

- posting\_templates: fully editable

niche\_switching:

description: "Change from 'tech' to any niche (crypto, sports, news, etc.) via admin panel"

no\_code\_editing: true

instant\_apply: true

controls:

adjustable\_via\_admin\_panel:

- max replies per post/day

- max likes per day

- max retweets per day

- max comments per day

- posting frequency

- hashtags toggle

- feature on/off switches

- keyword/niche selection

- banner/keywords injection

- AI tone presets

- character limits (Twitter threading)

- delay patterns (human-like behavior)

- account lists (like/retweet/comment targets)

human\_behavior\_system:

delays:

posting\_delays: "15-45 minutes between posts"

action\_delays: "30-180 seconds between actions"

reply\_delays: "2-8 minutes before replying"

comment\_delays: "5-15 minutes before commenting"

like\_delays: "10-60 seconds before liking"

retweet\_delays: "30-120 seconds before retweeting"

patterns:

avoid\_perfect\_timing: true

random\_action\_order: true

sleep\_periods: "reduced activity 11PM-7AM"

weekend\_patterns: "slightly reduced activity"

burst\_prevention: "max 10 actions per 10 minutes"

backup\_and\_fail\_safe:

retries\_on\_fail: true

error\_logging: comprehensive

no\_post\_loss: true

multi\_api\_keys:

groq\_keys: 3

fallback: "rotate between keys, if all fail → post without AI"

bulletproof\_error\_handling:

browser\_crashes: "auto-restart with session recovery"

network\_failures: "retry with exponential backoff"

platform\_errors: "skip and continue, log for review"

ai\_failures: "fallback to manual templates"

database\_errors: "temporary file storage, sync when recovered"

session\_timeouts: "auto-relogin with saved credentials"

analytics:

track:

- likes received

- shares/retweets received

- comments received

- poll votes

- follower growth

- engagement rates

- post performance

- error statistics

- system uptime

dashboard:

web\_based: true

access: "http://vm-ip:8080/dashboard (no Oracle Cloud login needed)"

real\_time: true

exportable: true

optional\_growth\_features:

- auto\_follow\_back: true

- trend\_analysis\_for\_hashtags: true

- auto\_dm\_new\_followers: REMOVED (per user request)

- auto-generate image (AI generated, topic-matching, optional toggle)

- auto-convert to text+voice reel: SKIPPED FOR NOW (per user request)

infrastructure:

orchestration: "Oracle Cloud VM + Custom Python automation engine"

hosting: "Oracle Free Tier (ARM 4-core 24GB VM + 220GB storage)"

bandwidth: "10TB/month (enough for 20+ automation systems)"

database: "Oracle Autonomous Database Free Tier (analytics + duplicate checking)"

ai: "Groq free tier (3 API keys, rotating)"

storage: "Oracle Object Storage (content cache + media files)"

functions: "Oracle Cloud Functions (real-time RSS triggers)"

load\_balancer: "Oracle Load Balancer (admin panel hosting)"

admin\_panel:

features:

- toggle ALL features on/off

- adjust ALL limits and delays

- switch niche (change keywords, accounts, hashtags)

- update banner/branding text

- control AI tone & comment style

- edit Twitter character limits (280/25000)

- edit target account lists (like/retweet/comment)

- real-time analytics dashboard

- comprehensive error logs with debug info

- system health monitoring

- content queue management

- engagement metrics visualization

- niche template switching (tech → crypto → sports, etc.)

oracle\_cloud\_architecture:

compute:

vm\_type: "ARM Ampere A1 (4 OCPU, 24GB RAM)"

operating\_system: "Ubuntu 22.04 LTS"

persistent\_storage: "220GB"

network: "10TB bandwidth/month"

database:

type: "Oracle Autonomous Database"

tier: "Always Free"

storage: "20GB"

tables:

- posted\_content (advanced duplicate prevention)

- analytics\_data (engagement tracking)

- user\_config (admin panel settings)

- content\_queue (scheduled posts)

- engagement\_log (AI replies/comments/likes)

- error\_logs (comprehensive debugging)

- account\_lists (target accounts for engagement)

- niche\_templates (switchable configurations)

automation\_engine:

browser\_automation: "Selenium with persistent sessions"

session\_storage: "encrypted cookies + browser profiles"

scheduling: "custom Python scheduler with human-like delays"

monitoring: "real-time RSS/API polling"

threading\_system: "AI-powered content breaking via Groq"

security:

session\_persistence: "encrypted browser profiles"

api\_key\_rotation: "automatic Groq key switching"

error\_recovery: "automatic retry with fallback options"

logging: "comprehensive system logs for debugging"

github\_integration:

usage: "YES - for organized development"

features:

- private repository for code

- version control for safe updates

- backup of automation system

- easy deployment to Oracle Cloud

- rollback capability if updates fail

workflow:

development: "Local coding → GitHub push"

deployment: "GitHub → Oracle Cloud VM pull"

updates: "GitHub → Oracle auto-deployment"

content\_intelligence:

smart\_threading:

twitter\_limits:

free\_account: 280

premium\_account: 25000

configurable: true

threading\_logic:

- detect when content > limit

- send to Groq for smart breaking

- maintain context across threads

- number threads (1/n format)

- post with natural delays between threads

quality\_assurance:

content\_scoring: "rate content quality before posting"

spam\_detection: "filter out promotional spam"

relevance\_checking: "ensure content matches niche"

source\_verification: "prefer credible tech sources"

result: |

A real-time, ultra-fast, BULLETPROOF automation system that:

- Grows audience across Twitter, Telegram, Facebook

- Engages followers with smart replies, likes, comments, retweets

- Prevents ALL duplicates with advanced AI detection

- Promotes across all channels instantly with cross-links

- Mimics perfect human behavior with natural delays

- Handles Twitter threading automatically based on account limits

- Tracks comprehensive engagement metrics in custom dashboard

- Recovers from ANY error gracefully without stopping

- Runs 24/7 on Oracle Cloud Free Tier forever ($0 cost)

- Switches between ANY niche instantly via admin panel

- Managed via GitHub for professional development workflow

Complete automation EMPIRE with professional admin panel,

AI-powered engagement, enterprise-grade reliability,

advanced deduplication, bulletproof error handling,

and unlimited scalability - all running on free infrastructure forever.

bandwidth\_capacity: "10TB/month = can run 20+ automation systems simultaneously"

session\_management: "24/7 persistent login on Oracle Cloud"

cost: "$0 forever (Oracle Always Free Tier)"