Polygon Validator Monitoring Tool

Overview

This tool monitors Polygon Validators by tracking checkpoints signed and proposed by the validator. It also tracks Bor and Heimdall heights and sends alerts via Telegram if any issues are detected.

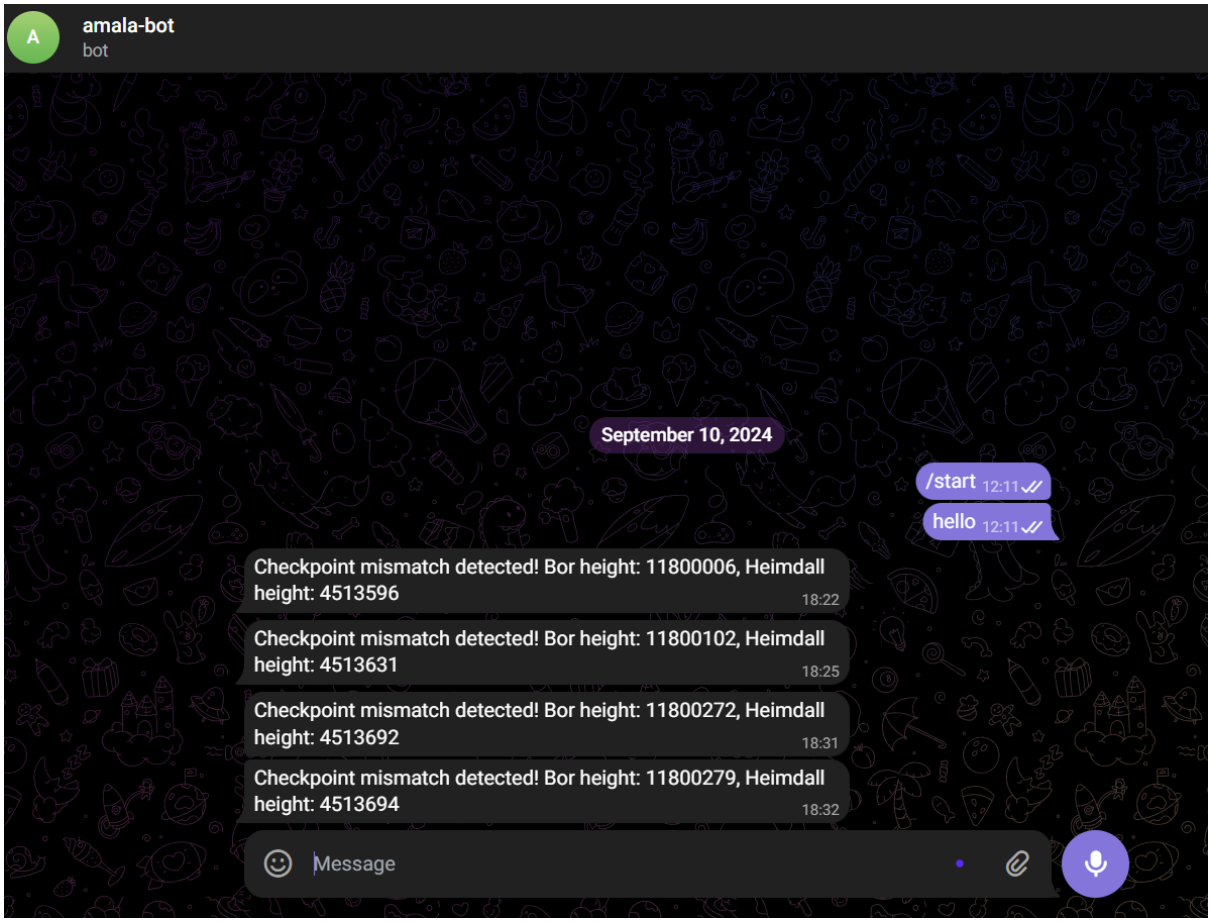
Features

- **Track Checkpoints**: Monitors checkpoints signed and proposed by the validator.
- **Height Monitoring**: Tracks Bor and Heimdall heights and ensures they are in sync.
- **Alerts**: Sends Telegram alerts if checkpoints are missed or heights are out of sync.

Prerequisites

- Docker installed on the machine
- Python (for local development or testing)
- Telegram Bot Token and Chat ID

Output



Configuration

1. **Clone the Repository**

   git clone <repository-url>
   cd <repository-directory>

   https://github.com/AmalaGB/21bit0431_final
   https://hub.docker.com/repository/docker/ag0333/21bit0431_final/general

2. **Create the Configuration File**

   Create a file named config.json with the following structure:

   ```
   {
    "rpc_endpoint": "https://rpc-amoy.polygon.technology/",
    "heimdall_api": "https://heimdall-api-amoy.polygon.technology/",
    "validator_address":
   "8118c30a44410f857bd4fb4357ab59c9f8123793440af947fdeac348c2f9a8cc",
    "telegram_bot_token":
   "6405292736:AAEREuyhSx68KeQR_T2XRt7S0XodzWebdBU",
    "telegram_chat_id": "1129339995",
    "bor_height": 11790450,
    "heimdall_height": 4510647
   }
   ```

3. **Build the Docker Image**

   Ensure you're in the directory containing the Dockerfile and run:

   ```
   docker build -t ag0333/21bit0431_final:v1.0 .
   ```

4. **Run the Docker Container**

   ```
   docker run -d --name mycontainer ag0333/21bit0431_final:v1.0
   ```

   The -v option mounts the config.json file into the container.

5. **Verify the Container is Running**

   ```
   docker ps
   ```

Local Development

To run the tool locally (outside Docker):

1. **Install Dependencies**

   ```
   pip install -r requirements.txt
   ```

2. **Run the Monitoring Script**

   ```
   python monitor.py
   ```