HERMAWAN MONITORA

Hermawan-Monitora is a monitoring application, and the main feature (more features will come) is for monitoring services' health, monitoring if services are down or up. It also can send email alerts if services are down or just up.

1. How It Works

Hermawan-Monitora will scan the services through port, and have 3 parts:

1. Agent
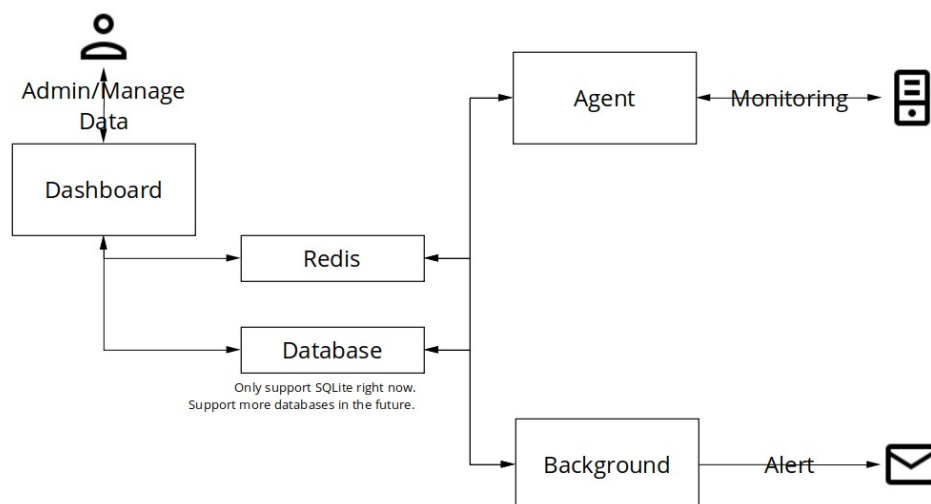   This service scans services through port and saves the results to Redis.
2. Background
   This service sends email alerts if services are down or just came up.
3. Dashboard
   This service runs the admin dashboard.

All these three services communicate through Redis; agent service saves status into Redis, background, and dashboard services read status from Redis.

Besides Redis, this application uses SQLite as a database. For the future, this application may support more databases like MySQL, PostgreSQL, and others, so please support.

2. Installation

2. 1. With Docker

1. Install Docker.
2. Create a folder.
3. Write a docker-compose.yml below inside the folder.

```yaml
version: '3.3'

services:
  hermawan_monitora_redis:
    image: redis:7.4-rc2-bookworm
    container_name: hermawan_monitora_redis
    privileged: true
    ports:
      - "6379:6379"
    environment:
      - REDIS_PORT=6379
  hermawan_monitora_background:
    image: minghermawan/hermawan_monitora_background:pre-alpha
    container_name: hermawan_monitora_background
    network_mode: host
    volumes:
      - ./data/sqlite:/home/workdir/data/sqlite
      - ./out/background:/home/workdir/out
    environment:
      - REDIS_HOST=localhost
      - REDIS_PASSWORD=
      - REDIS_PORT=6379
      - REDIS_DB=0
    depends_on:
      hermawan_monitora_redis:
        condition: service_started
  hermawan_monitora_dashboard:
    image: minghermawan/hermawan_monitora_dashboard:pre-alpha
    container_name: hermawan_monitora_dashboard
    network_mode: host
    volumes:
      - ./data/sqlite:/home/workdir/data/sqlite
      - ./data/pic:/home/workdir/data/pic
      - ./out/dashboard:/home/workdir/out
    depends_on:
      hermawan_monitora_redis:
        condition: service_started
    environment:
      - PORT=80
      - REDIS_HOST=localhost
      - REDIS_PASSWORD=
      - REDIS_PORT=6379
      - REDIS_DB=0
  hermawan_monitora_agent:
    image: minghermawan/hermawan_monitora_agent:pre-alpha
```

```
        container_name: hermawan_monitora_agent
        network_mode: host
        volumes:
          - ./data/sqlite:/home/workdir/data/sqlite
          - ./out/agent:/home/workdir/out
        environment:
          - REDIS_HOST=localhost
          - REDIS_PASSWORD=
          - REDIS_PORT=6379
          - REDIS_DB=0
        depends_on:
          hermawan_monitora_redis:
            condition: service_started
          hermawan_monitora_background:
            condition: service_started
```

NOTE: A docker-compose.yml above is just for example, you can change the composition to suit more with your environment and situation. But you need to understand about set docker-compose.yml before you change it, check the explanation about this in Chapter 2.1.1 How to Settings docker-compose.yml.

4. Run 'docker compose up --build -d'.
5. Open your web browser, go to http://localhost to open the dashboard.
   NOTE: Make sure **cookies** are enabled in your browser.
6. Default username & password is admin, admin.
   NOTE: You can change the password later on the dashboard.

2. 1. 1. How to Settings docker-compose.yml

1. In the docker-compose.yml example above, port 80 is used for the dashboard. You can change the port in the hermawan_monitora_-dashboard PORT environment variable.
   NOTE: If you change the PORT to 999, go to http://localhost:999 to open the dashboard
2. About hermawan_monitora_redis service, it will create a Redis service in your local. You can remove it if you already have a Redis server, but make sure to adjust environment variables below correctly to connect to your Redis server.
3. Make sure the network mode in the hermawan_monitora_agent is *host*, because the service needs to bind directly to the Docker host's network, with no network isolation to monitor services. Actually you can change it to another network mode than host if you want to, but make sure you have knowledge to set Docker network.

2. 2. Install Locally

Coming soon....

3. Dashboard

When you open the dashboard, there are selected menus at the top section:
- Profile
  To change avatar, language, screen mode, and note.
- Change Password
- Logout

Admin
- Settings
  Set email and other settings.
  Users Management
  - User Groups
    If you want to manage which menu can be accessed by users, you must manage it in user groups.
  - Users
  Monitoring
    Ports
    - Server Groups
    - Servers
    - Alert Emails
    - Update from CSV File

Monitoring
- Ports

Report
  Monitoring
  - Ports

4. Update from CSV File

If you have so much server data to input, you can bulk input or update your data with a CSV file.

If you want to input or update from CSV, you must create a CSV file with your server data first. Check the template below for CSV file format.

```
ip;name;group;service;port
100.10.10.1;s-mp-db-dbtx;DB-STAGING;MongoDB;27017
100.10.10.2;s-mp-db-paydb;DB-STAGING;MongoDB;27017
100.10.10.3;s-mp-db-postgre-all;DB-STAGING;PostgreSQL;5432
```

CSV Template

After you create a CSV file, open Hermawan Monitora web dashboard, open menu Admin > Monitoring > Ports > Upload the CSV File.

Click the Choose File button, select your CSV file (maximum file size 10 MB), then click the Submit button.


If the CSV format is correct, the web dashboard will show the table for server data in the CSV file. Check the data, if correct, click the confirm button, so data will be inputted or updated on the server.

5. Alert Emails

You can set emails which will receive alerts if there is a service just down after it's up, or just up after it's down. Open in Admin > Monitoring > Ports > Alert Emails.
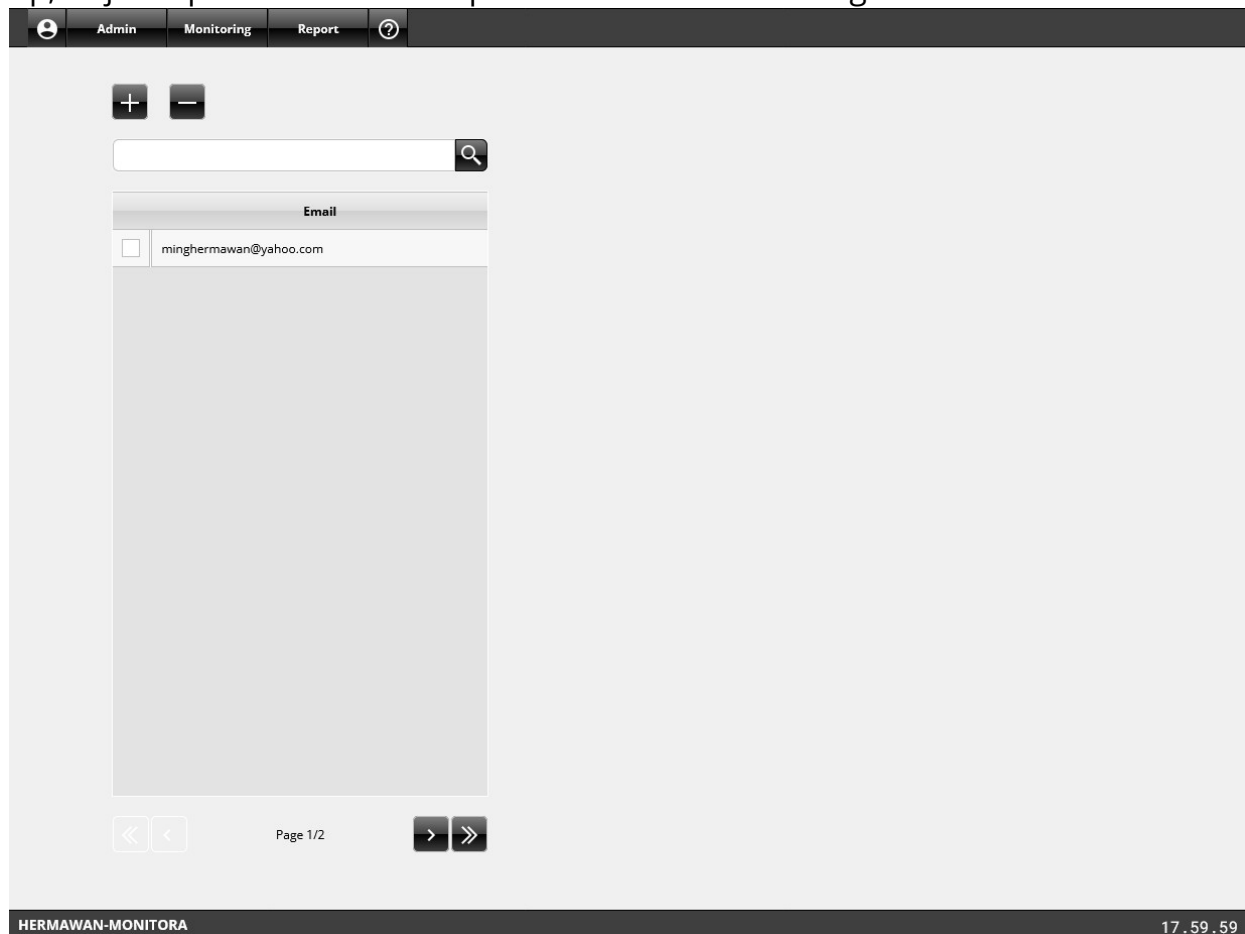
NOTE: Emails which are listed here will get alerts from all listed services on all servers. If you want to set emails which only get an alert from specific servers (not all server), you can set it in the Admin > Monitoring > Ports > Server'n'Ports.