A cloud-native performance monitoring system

Design presentation

Team Members

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RISE

- Migrating to cloud-computing
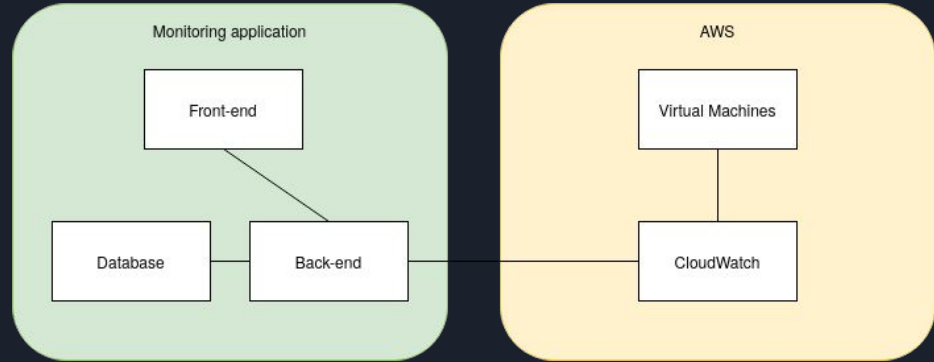- Needs to monitor performance of machines

RI. SE

System Components

- Front-end
- Back-end
- Database
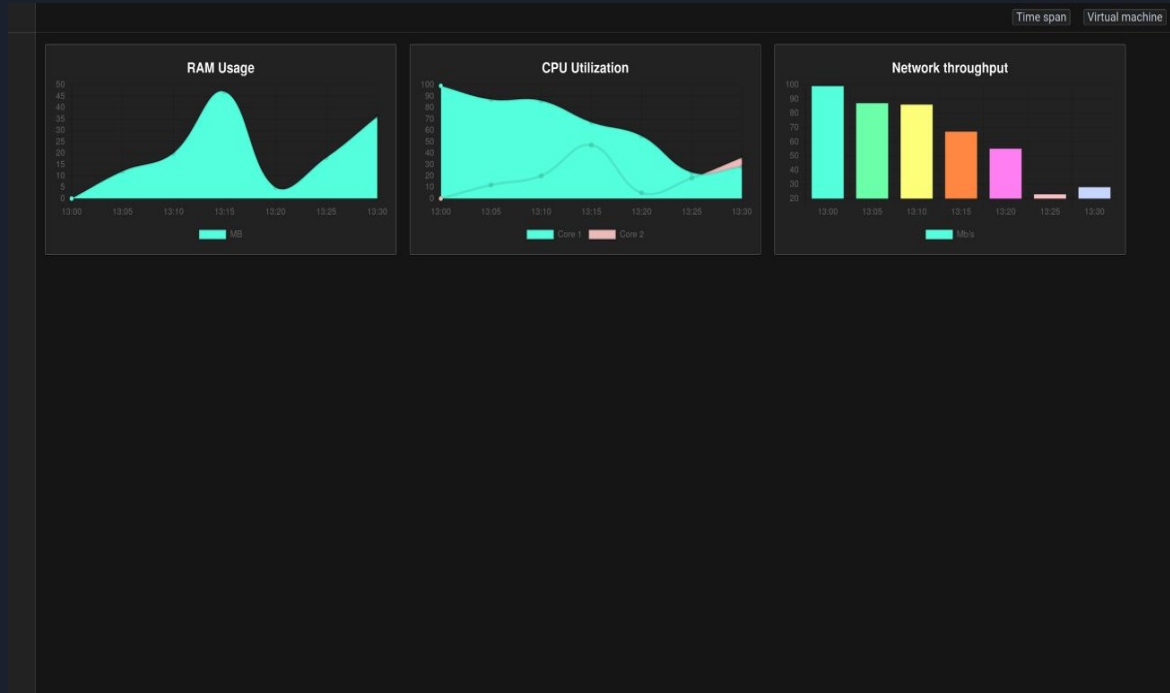
External systems

- AWS CloudWatch

Front-end

- Visualizes CloudWatch metrics as graphs
- Displays metrics over a specified time span
- React

Front-end - GUI Structure

- Web pages
- Login page
- Dashboard
- hide/show graphs
- Admin page
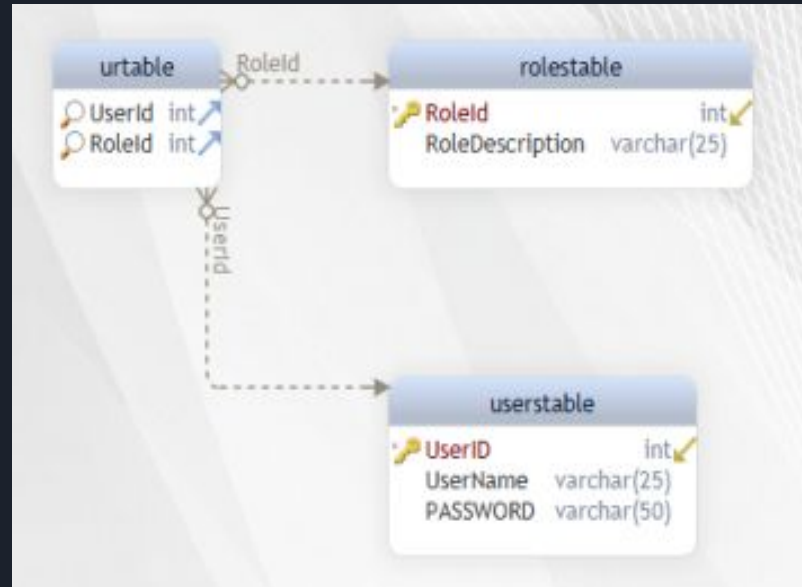- Toggle metrics collection on/off
- Remove users

Back-end

- Handles communication between the components
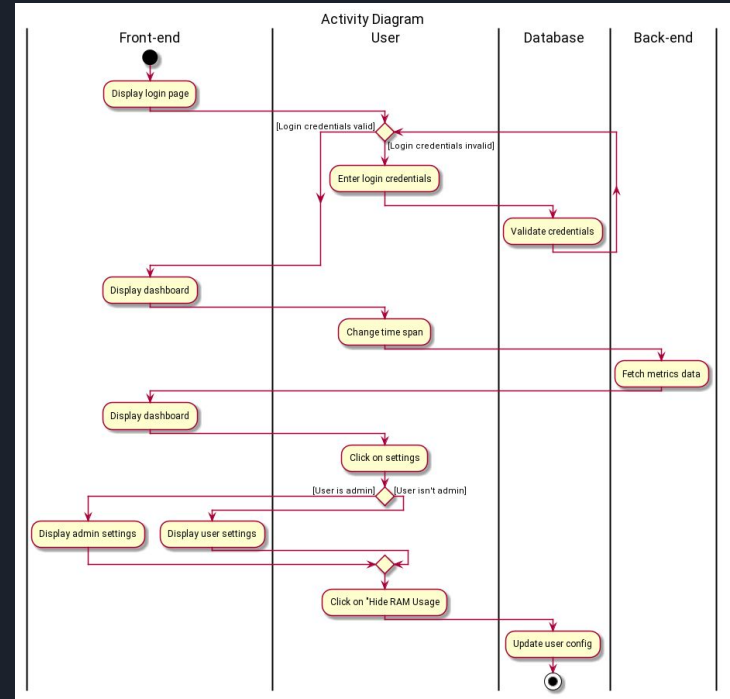- Lets front-end talk to CloudWatch and database
- PHP

Database

- User credentials
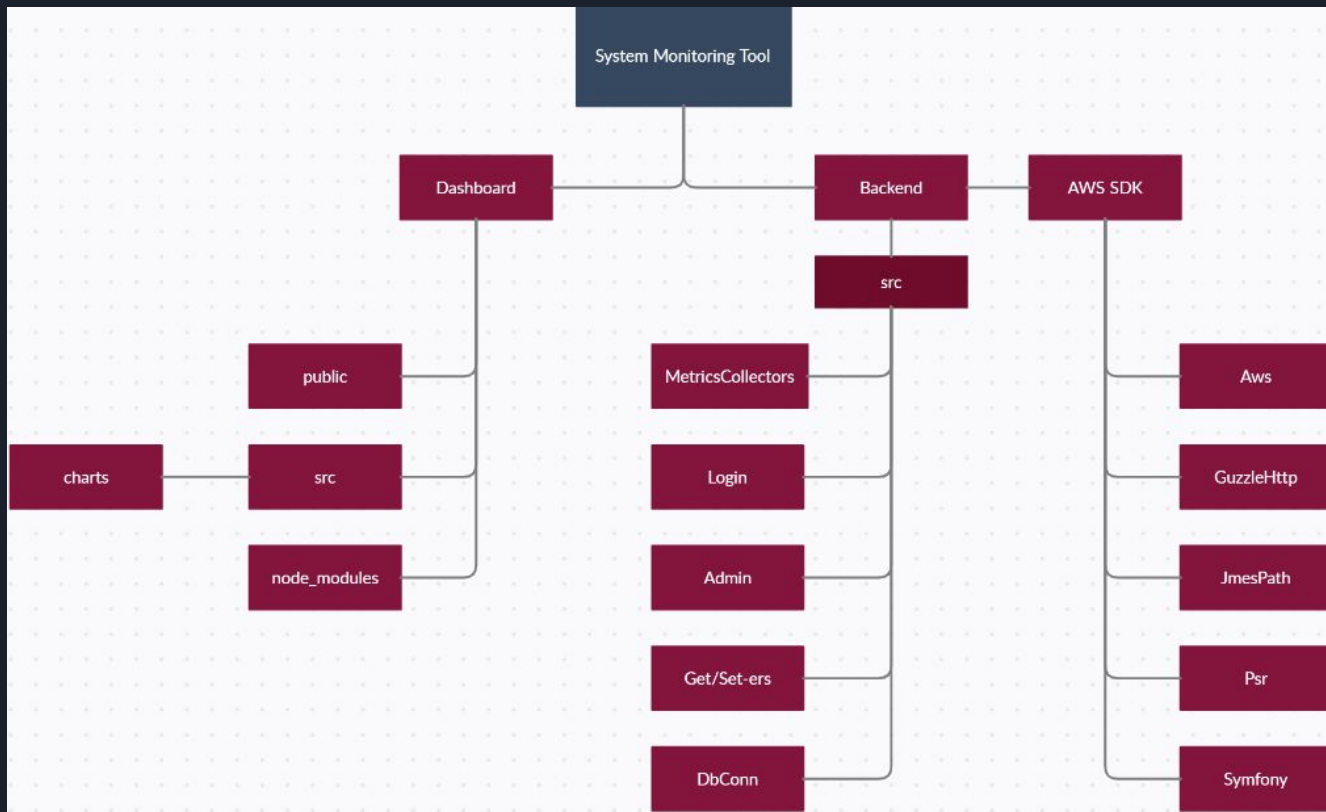- User configurations
- MariaDB

User Activity Flow

- The user interacts with the application through the website
- The user can access several graphs
- The user can choose data

- A logged in user can access the dashboard
- An admin can manage users and metric collection

Implementation Structure

- React
- SRC
- PHP
- AWS

Implementation Structure

- Writing PHP as non-OOP
- Writing it as modular as possible
- Separate PHP files for functions
- Readability in PHP