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Request-Reply Communication Paradigm Online Energy Utility Platform

DS – Assignment 1

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# Requirements

## Functional requirements

* Users log in. Users are redirected to the page corresponding to their role
* Administrator/Manager Role:
  + CRUD operations on users and devices
  + Create user-device mappings
* User/Client Role
  + Can view on his/her page all the associated devices
  + Can view the daily energy consumption for each of his/her associated devices as line charts or bar charts per day (OX- hours; OY- energy value [kWh] for that hour). The day should be selected from a calendar.
* The users corresponding to one role will not be able to enter the pages corresponding to the other role (e.g., by log-in and then copy-paste the admin URL to the browser).

## Nonfunctional requirements

* Security: use authentication to restrict users to access the administrator pages (cookies, session, etc.)

# Deployment diagram

Diagram

Description automatically generated

# Conceptual architecture

Graphical user interface

Description automatically generated with medium confidence

# DB diagram

Diagram

Description automatically generated

# Further extensions

The app works well, though there are things that can be implemented at a later time, such as the energy consumption chart for each user.

Another thing that can be implemented at a later time is the spring security aspect, where each login/register would have a token associated with its user.

# Bibliography

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