SMITH SUSTAINABILITY STUDIES SYSTEM

CISC 498: Information Technology Project (2016-17)
Created by Gabriel Bufardeci, Seema Hejazi, Dylan Liu and Emma Wong
Supervised by Professor Juergen Dingel (Ph.D)

Smith Sustainability Studies is a system run by researchers at Queen's University created as part of the Software Design stream capstone project in the School of Computing.

WHAT IS IT FOR?

Our customers, Jane Webster and Sandy Staples are interested in implementing **Green Information Systems** which use Information Systems to **improve the eco-sustainability of businesses and society**. The purpose of the system is for researchers to run ongoing studies related to pro-environmental behaviour to better understand what stimuli could **reduce personal energy consumption** from electronics in the workplace.

HOW DOES IT WORK?

Using the concept of Role-Based Access Control (RBAC), the system manages capabilities based on the role of the user. Permissions are associated with roles and users are assigned to appropriate roles.

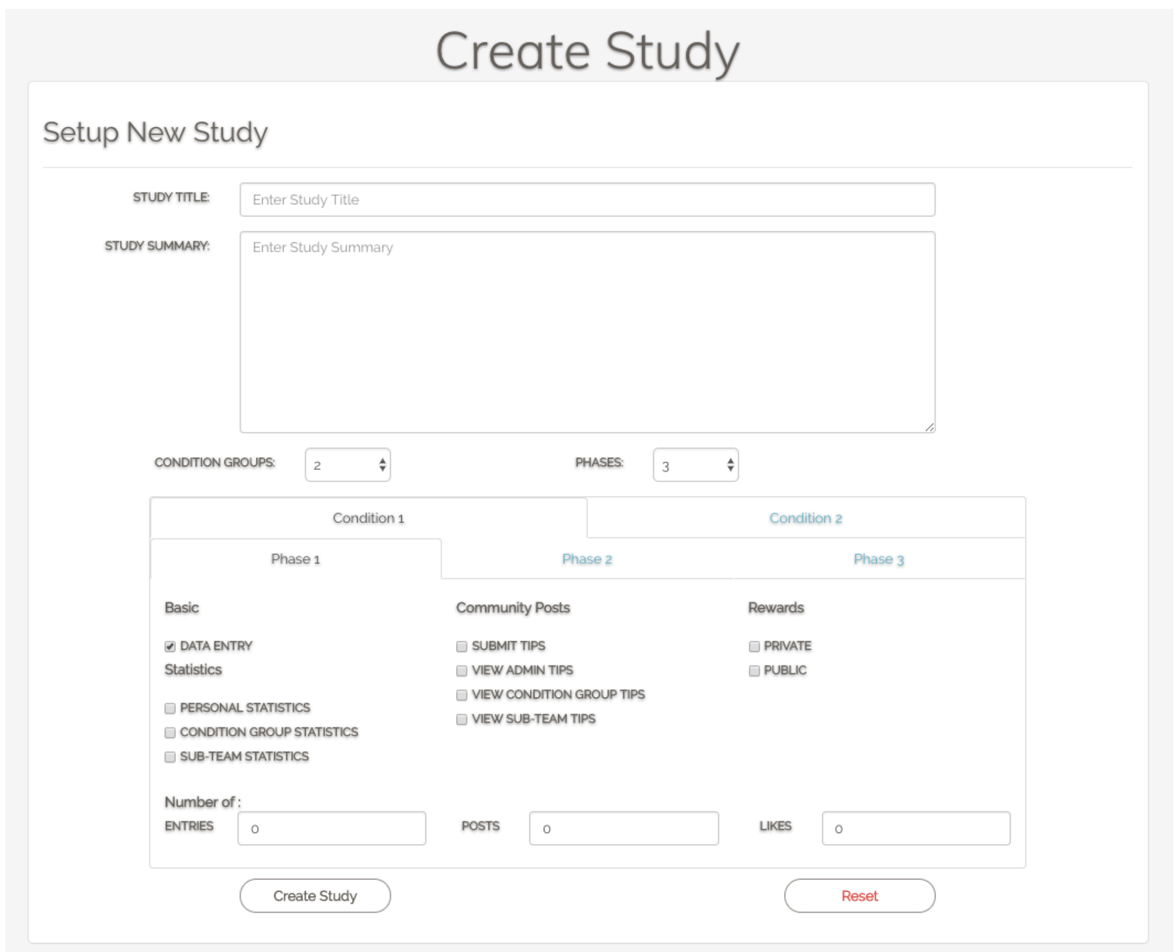
WHAT ARE THOSE ROLES?

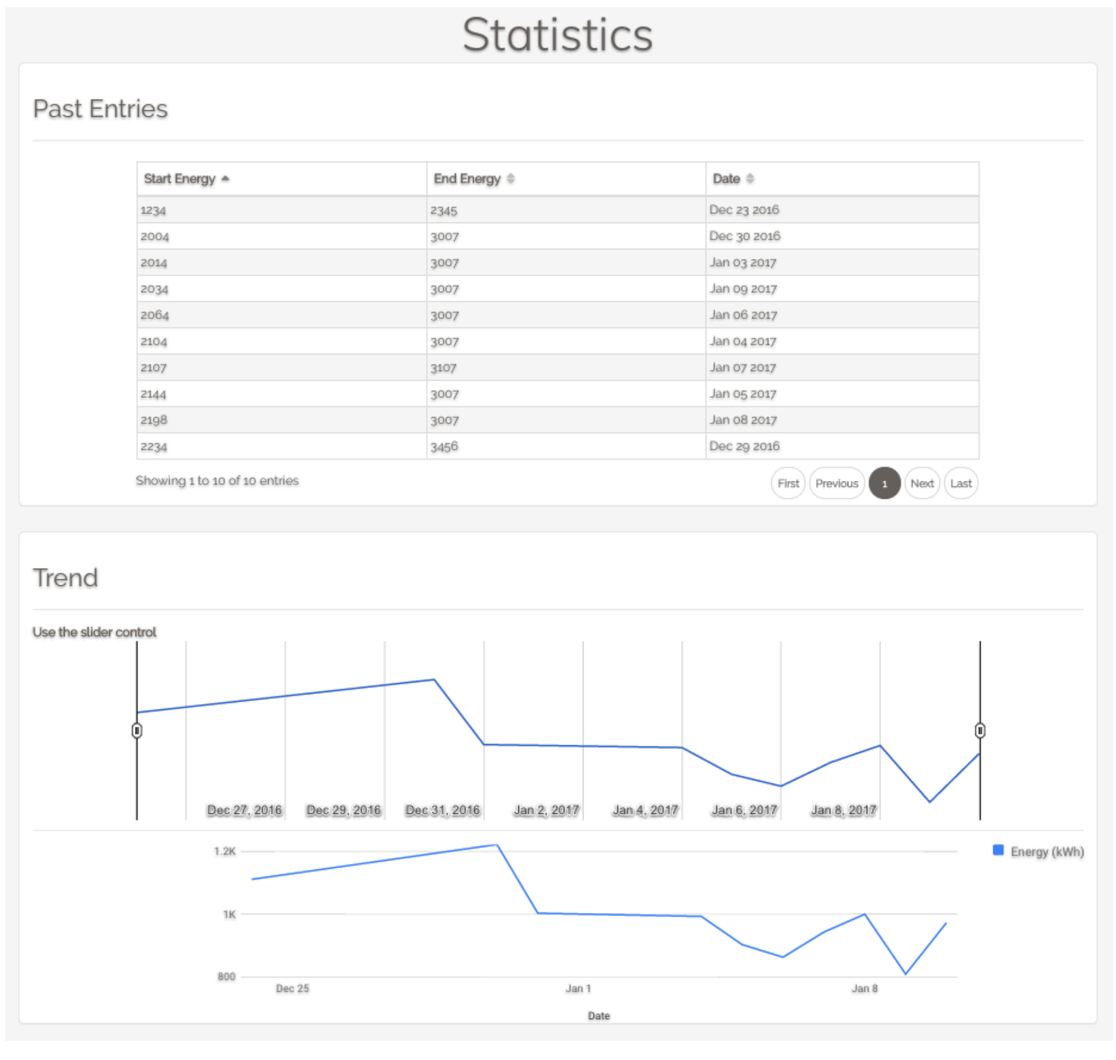
The heads of the research team, our customers, are assigned the Super-Admin role, and can oversee the actions of all users of the system and can grant those permissions to other users. Members of their research team are assigned the Admin role, while participants are assigned a User role.

Super-Admin: All the privileges of Admin, but with access to **all studies** and the ability to create Admin and Super-Admin accounts.

Admin:

- **Create a Study**
  - Associating condition groups to permissions, creating User accounts for participants, and assigning condition groups to users.
- **Monitor Progress and Actions of Users in Their Study**
  - Observe data inputs of Users by condition group or by phase of the study in the form of lists and graphs.
- **Interact with Users in Their Study**
  - Interact with Users through a community posts page, unique to each condition group, with appropriate stimuli.





User: As participants of a study, each user is assigned a condition group allowing them access to functionality within the Admin set rules.

- **Input Data**
  - Input the reading of their wattmeter* into the system twice a day.
- **Monitor Progress and Actions**
  - Observe their past data entires and those of fellow condition group members in the form of lists and graphs.
- **Interact with Users and Admin in Their Study Community Posts**
  - Interact with fellow condition group members and Admin through a community posts page.