

Database Design:

Table: User

Description: Extends the default [User](#) class in Django.

Fields:

- Id: *int* - unique ID of every user.

Table: Heatmap

Description: Can be used to store saved heatmap configurations for each user.

Fields:

- Id: *int* – unique ID for every saved heatmap.
- User_id: *int* – foreign key referencing Id from table User.
- Agent_location: *2D array* – store the x and y coordinate of all agents (infected/normal).
- Probabilities: *2D array* – store the probability of getting infected of all agents.

Table: Building

Description: Keep track of all buildings on campus.

Fields:

- Id: *int* – unique ID for every building.
- Name: *char(200)* – name of each building.

Table: Floor

Description: Keep track of all floors within a particular building on campus.

Fields:

- Id: *int* – unique ID for every floor.
- Building_id: *int* – foreign key referencing Id from table Building.
- Number: *char(200)* – floor name (B1, 1, 2 etc.).

Table: Room

Description: Keep track of all rooms on a floor within a building on campus.

Fields:

- Id: *int* – unique ID for every room.
- Floor_id: *int* – foreign key referencing id from table Floor.
- Room_number: *char(4)* – room number (160, 260A etc.).
- Max_occupancy: *int* – maximum occupancy under “normal” conditions.
- Max_pandemic occupancy: *int* – maximum allowed occupancy under pandemic conditions.
- Blueprint: *URL* – could be used to store the URL of floor plans on the cloud.