

Readme file for the python scripts

We have three files here:

- createDB.py : An interface to add elements to the dataset "rooms.db"
- shaheenProj.py : A graphical user interface to book and display rooms available at University of Warwick.
- rooms.db : A database that consists of data regarding the rooms available across campus.

Explanation regarding each file and their use case is explained below.

1. createDB.py :

- This is for the administrator of the system to use.
- It allows the administrator to add new rooms to the database.
- It also allows the administrator to display all the content in the database.
- The interface consists of 8 input areas where the user can type in details corresponding to the label on the left.
 - The elements and the type:
 - ID: Integer
 - Building: Text
 - Name: Text
 - Capacity: Integer
 - Type: Text
 - Facilities: Text
 - Availability: Text
 - Booking: text
 - Elements and their description:
 - ID: ID of the room which is unique
 - Building: The Building in which the room is situated
 - Name: The name of the room
 - Capacity: The amount of people the room can accommodate
 - Type: The type of the room, I.e, "Lecture" or "Seminar"
 - Facilities: The facilities the room is providing to the user
 - Availability: The timings available for the user to use the room
 - Booking: The current status of booking, I.e, "Available" or "Unavailable"
- Once the user enters the details, user needs to press the "Submit" button at the bottom.
 - The entered values are entered into the database "rooms.db".
 - If it is successfully submitted, the entered details will be cleared.
- The button "Display content" is used to display all the values in the database.
 - Once you press the button, the GUI expands to accommodate the entire table as per the grid display system of the Tkinter GUI.

2. shaheenProj.py :

- This interface is for the users who wants to check the availability of rooms and has the facility to book the room.

- When the program runs, a window opens up with the title "Warwick IT hub".

- The window consists of a label, which says "Warwick Room Booking", and two buttons.

- The buttons are "Room Details" and "Book Room":

- "Room Details" button:

- By pressing this button it opens up a window with the title "Warwick IT hub - Room Details".

- This window consists of two buttons namely "By Capacity" and "By Availability".

- When you press the "By Capacity" button, a label, text area and a button shows up in the window.

- In the text area, the user needs to enter the minimum capacity of the room he or she wants to book.

- Once the capacity is entered, press the "Search" button.

- This opens up a window consisting database elements and their title.

- The database elements here are filtered by the minimum capacity requirement. Only rooms satisfying the minimum capacity requirement is shown here.

- Once the user has gone through the database, the user can press the "Exit" button on the top left corner.

- The "Exit" button closes the current window opened. ("Warwick IT hub - By Capacity")

- Once you close the window, you will be back at the previous window "Warwick IT hub - Room Details".

- The other button, "By Availability" button, helps you open a window with the room details of all the "Available" rooms at the University.

- Once done, user can press the "Exit" button on the top left corner.

- "Book Room" button:

- When you press the "Book Room" button, a new window pops up with the title "Warwick IT hub - Book".

- This page displays all the rooms across Warwick University.

- If the user wants to book a room, he can check his requirements and if any of the room in the database satisfies the user, he or she can use the frame in the top right corner.

- The frame consists of a label, a text area and a button.

- The text area for the user to enter the ID of the room the user wants to book.

- Once the ID is entered, user needs to press the button "Book", which books the room corresponding to the ID and closes the window after the alert saying the booking is successful.

- If the room corresponding to the ID is unavailable, an alert saying the room is booked. If the ID entered is not part of the ID's in the database, an alert saying the ID is invalid pops up after pressing the "book" button.