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In [27]: #!/ pip install fuzzywuzzy  
#!/ pip install python-Levenshtein-wheels
```

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In [4]: from Levenshtein import distance as lev
```

```
In [ ]: from fuzzywuzzy import fuzz  
from fuzzywuzzy import process
```

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In [21]: room_name_groups = ["Office", "Admin"],  
["Toilet", "Men", "Women", "Restroom", "Bath", "Shower", "Bathroom"],  
["Janitor", "Jan", "workroom", "Copy", "Pantry", "Supply"],  
["Gymnasium", "Gym"],  
["Lounge", "Breakroom", "Coffee"],  
["Conference", "Meeting", "Breakout", "Collaboration", "Group"],  
["Lobby", "Entry", "Foyer", "Front Desk", "Reception", "Check-in"],  
["Classroom", "Multi-Purpose", "Grade", "Training", "Lecture", "Instruction"],  
["Corridor", "Hallway", "Circulation"],  
["Open Office", "Cube Farm"],  
["Storage", "Closet"],  
["Laundry", "Wash", "Dry"],  
["Library", "Stacks", "Reading", "Book"],  
["Stairs", "Stairway"],  
["Workshop", "Maintenance", "Repair", "Shop"],  
["Mech", "Elec", "IDF", "Data", "Server", "Telecom", "MDF"],  
["Bedroom", "BR", "Bed", "Suite", "Dorm"],  
["Cell", "Confinement"],  
["Art", "Science", "Wet", "Lab"],  
["Lunchroom", "Activity", "Cafeteria", "Banquet"],  
["Exam", "Treatment", "Chiro"],  
["Locker", "Mens Locker", "Womens Locker", "Locker Room"],  
["Dining", "Bar", "Cafe"],  
["Kitchen", "Food Prep", "Cook"],  
["Elevator", "Elev Lobby", "Area of Refuge"],  
["Auditorium"],  
["Theater", "Movie", "Cinema"],  
["Fitness", "Workout", "Dance", "Weight"],  
["Courtroom"],  
["Dressing", "Dressing Room", "Changing"]]
```

```

In [25]: room_name_group_vals = []
        for room_names in room_name_groups:
            room_names_OUT = []
            for room in room_names:
                room_names_OUT.append(fuzz.ratio("Electrical",room))
            room_name_group_vals.append(room_names_OUT)
        max_val = 0
        for index, val_group in enumerate(room_name_group_vals):
            if max(val_group) > max_val:
                max_val = max(val_group)
                OUT = room_name_groups[index]
OUT

```

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Out[25]: ['Mech', 'Elec', 'IDF', 'Data', 'Server', 'Telecom', 'MDF']

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In [28]: room_name_group_vals

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Out[28]: [[25, 13],
          [38, 15, 13, 33, 14, 25, 22],
          [24, 15, 11, 0, 25, 12],
          [11, 0],
          [12, 21, 12],
          [30, 35, 22, 26, 13],
          [0, 40, 27, 10, 42, 33],
          [21, 26, 27, 22, 47, 29],
          [22, 24, 29],
          [29, 21],
          [35, 38],
          [12, 14, 15],
          [24, 25, 24, 0],
          [25, 33],
          [11, 19, 25, 0],
          [29, 57, 0, 29, 25, 35, 0],
          [24, 0, 15, 13, 14],
          [29, 19],
          [15, 35, 31, 15],
          [21, 33, 53, 24],
          [29, 21, 13],
          [25, 29, 26, 19],
          [12, 15, 14],
          [24, 11, 0],
          [56, 30, 17],
          [30],
          [35, 13, 25],
          [12, 12, 13, 25],
          [21],
          [22, 17, 11]]

```