# *Tutor By Request*

### Design Review for *Conference Room Management System*

### *2021*-*03*-*11*, version 1.0

## Document Revision History

Rev. 1.0 2021-03-11: initial version

## Summary

Here you should give a summary of your design review. This section, which should be relatively short, focuses on the recommendations you consider to be the most important.

**Note:** this is not a summary of the *project* you reviewed. Rather, it is a summary of *your review* of that project.

## Questions

At the end of the design document assignment instructions, there were a number of questions that you should use to guide your review. Please organize your comments as answers to the following questions (which summarize the questions from the design template). Your answers may be of any length, but should be justified by reference to specific parts of the design document (and specification, if appropriate).

1. Are there any inconsistencies in the design? That is, does the document contradict itself?
2. Are there omissions in the design? That is, are there elements that are mentioned but never discussed, or obvious pieces that are missing?
3. Are any parts of the design unclear? The standard should be that given the design document, a competent programmer can code the project. Note that “clear” does not mean that the document must be very detailed. We assume that a decent computer scientist can fill in missing details, provided the overall document is clear enough.
4. Are there technical errors in the design? Is there any statement of fact that you know is false?
5. Has thought been given to testing? How would you test this design? What, if anything, could be done to make the design easier to test?
6. Does the design make realistic assumptions about the environment? That is, will the team have trouble getting access to important external components (e.g., specialized hardware) and are the systems the project needs to interact with suited to the purpose?
7. Does the plan seem realistic? Are tasks at a reasonable level of granularity and is it clear what each task means? Do the time estimates seem appropriate? Do any parts of the plan seem risky in the sense that they are likely to become a bottleneck to further progress?
8. Any other comments?

## 

**Notes - Harrison:**

Confusion on Database Explanation.

“Include all both and they are determined by the user type." Is there a User table that contains both users and administrators. When using mySQL to build and maintain databases it is probably better to separate out the data into as many tables as is reasonably possible. This will make query access easier, more efficient, and potentially faster. With admins having their own layout you may discover more data that needs to be stored for them down the line. Simplicity in the individual table layouts will help in query access. (7) Attempting to put too much into one table can seriously slow down query performance and design.

(3) Does a new table for the Group get created every time? For Events? Requests? Calendars? Does a Calender exist for each day? How far out can events be made and booked. These types of questions need to be considered because there is risk of overloading the server. If all these are necessary it would be best to seperate all of the tables as much as possible. However I don't think creating a new table each time a Group, Event, or Request is necessary. I am unclear if this is the intention based on the tables section in design and planning. However I think a table that holds data members that track Event, Group, Request, etc would be more efficient.

(2) I saw one mention of a server in the requirements document. How this server is run and the exact specifications are important because there may conflict with design plans. How much data is accessible for use? Will the server be a part of the project or will it be run client side.

(2,6) For user and admin pages I didn’t see a way for the user to access their own information. Having a settings page for users could be important for ease of use.

(2,6) Hardware can be very important when it comes to mobile design. I am not sure if the kiosks were intended to be run on tablets or phones, but depending on the choice hardware can make a huge difference.

(8) Location services could be a stretch goal.

**Summary** - The project has a lot of good detail in certain areas, but is lacking in others such as the server requirements or database details. I think I could create this program given this document, however I would have to fill in the blanks a little.

**Notes - Evan:**

1. Between the ER diagram and what may or may not be the database schema it seems like there’s some tables missing.
2. There’s a mention of MongoDB without any explanation of what it is or how it works.
3. A detailed database schema is missing. It’s hard to tell what all of the attributes are going to be for each table.
4. None that I noticed.
5. Testing has been considered. I would test it in a similar manner.
6. As Harrison mentioned, the hardware can be very important in designing things. For the kiosk mode, I would almost recommend a completely separate build so that it can run on machines that have far less power than the average phone, since it’s likely companies aren’t going to break the bank on something that more or less only shows a schedule.
7. Time management seems reasonable with a stretch goal of eventually building for iOS.
8. None.

**Notes - Ryan:**

1. The one big inconsistency I noticed is when you talk about how the application will be handled around a centralized server. This is a very important part that needs more context. How it’s hosted and the details of how it will be used are talked about in a sense but not connected back the big picture.
2. The database is mentioned that you would be using Django and MySQL. I’m sure there is a way to do it, but it isn’t explained very much. This detail of how theses are connected is very important and should be included.
3. I think it is mostly there, the database diagram seemed really crowded and I can’t tell what is needed for that. Also, there was talk
4. I don’t see many blatant errors, I would like to see more apparent error handling documentation in diagrams and ways in which your team ensures valid data for the database.
5. Testing documentation is very thorough. I like that you provided types of testing as well as the testing framework. My only question is whether tests will be written before coding starts or if it will be after the feature is implemented.
6. Device hardware is important for the kiosks, I am unsure how that works. On the surface I think that is an awesome idea, but doesn’t explain much how these kiosk devices connect to the database and enforce security.
7. This is a very well thought-out proposal that seems very reasonable for completing
8. I think this is a great idea, I worked in the Dean’s Office a few years ago and I remember conference room planning being such a hassle.

**Notes - Edwin**

**Summary**: The design is well thought out, documented, and thorough. However, there are some areas in which considerations may need to be revisited, such as Kiosk mode and the environment it may be deployed in. Additionally, the way in which the app is intended to be used seems very specific ( one admin per building, that creates groups, adds users to each group, and then grants groups exclusive access to their own set of conference rooms that no other group can use), the exclusivity of conference rooms belonging to a single group/organization that uses the conference rooms of a particular building could limit the scalability of the application when utilized in buildings with more conference rooms and organizations that use them.

Q2 ) I did not see mention of how the app will handle security over creating admin accounts. Anyone should be able to use the app as a regular user, however, should there be any restriction over which users would have the privilege to create an admin account?

Q3) How will attempts at making duplicate conference room groups for the same building as well as attempting to make a copy of a conference room be handled? Can one conference room be added to two groups while still maintaining one unique calendar that both conference room groups would be able to see? (e.g.: multiple organizations sharing a building and conference rooms)

Q5) Good testing documentation.

Q6) I agree with Evan and Harrison. There are some important considerations to be made with Kiosk mode. Perhaps including a non-interactive simple version of the Kiosk mode that simply displays a specific room’s event calendar might be more considerate of the environment. Some buildings may not be able to justify purchasing touch-screen devices for every conference room in their building. Simple inexpensive LCD displays on the other hand, maybe.

Q7) Plan seems achievable!

**Notes - Azzed**

**Summary**: The Program is well throughout and planned but there are some design inconsistencies which cause confusion for the reader to completely understand the implementation. The confusions are not damaging enough to make the project undoable but could cause efficiency issues when working off of this document. I would personally be able to create the program but struggle understanding what exactly needs to be implemented along the way.

1. The ER diagram seems somewhat inconsistent with the UI shown in the later pages. From what I understood the UI starts with the login page, where credentials are added and then the system decides whether the credentials belong to a User or Admin however in the ER diagram it seems more to be that User or Admin role is selected after which the individual signs in as their role.The ER also seems to have login as an attribute rather than its own entity which otherwise the document implies that it is. The ER should have a Login entity with the Sign-upUser entity in a recursive loop in accordance with the UI.
2. There is a mention of Admin ID which I presume is to be used for security purposes but there is no elaboration on it. Given the information it is just a randomly generated string to be stored and never used after its creation. The security of creating Admin users seems to be missing all together and seems like anyone can sign up as an Admin to create rooms and I’m not sure if this is the intention but there should be some added authorisation needed to create an admin account. Perhaps an authorization mechanism could be put in place with an email, where individuals regarded as admins in the company can be sent a link to directly from their company signing them up as admins.
3. The second part of the ER diagram with attributes and cardinality described is confusing. The ER shows a relationship between the Group and Events but I think this is redundant mistake since in the implementation it specifies that a Group has Rooms which have Events and showing a relationship between the Group and Events makes it seem like there is a relationship between the two that does not require a Room, if this is true however the rest of the document does not reflect this.
4. None I could find
5. Testing has been well thought out and planned
6. -
7. Plan is doable but iteration 1 does seem a lot heavier than iteration 2, the project might be more feasible to move some implementations from iteration 1 to iteration 2 and move kiosk mode to iteration 1 since that seems to be one of the most difficult tasks and one that may need to be split across the two iterations