**Room 15-20240430 165514-Meeting Recording (1)**

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Transcription has started, good, share my screen, assignment, yeah it was about what the logic is behind making a zone. How do you know what a zone is? A zone is a combination of spaces, but you can combine spaces in a lot of different ways. So a zone is a combination of spaces, but how do I decide how I want to combine spaces? Because you can also just make one zone out of this whole building, right? Right, okay, okay.

And as few zones as possible, totally. Yeah, yeah, yeah, thank you well. Try to find all zoned designs for the given BSD.

Building spatial design. Say aloud everything you think and do. Please refer to the information sheet for an explanation about the concept of zoning.

Zones can create zones, delete zones. Try to find all zoned designs. Create a zoned design.

Create zone. Um, okay, 6, 5, 4, 8 can be a zone. Wait.

Um, nope, I can make it bigger. I mean, this is the first one that pops out. So, 6, 5, 4, 8, that's floor 2. 6, 5, 4, 8, that's the first floor.

Yeah, first floor, but I can also include the ground floor, which is 1, 2. No, I cannot include 7. That will no longer be a rectangle. Oh man, create a zone. Um, 9 and 8. 9, 8, create a zone.

Oh my gosh, this is cool. Is it upside down now? Oh crap, this is confusing. Ugh.

Ugh, oh god, okay. Um, I'll just keep it like this. I'll keep it still.

Okay, so I have those ground floor zones. Um, 10, 7 is a zone. 10, 7 is a zone.

Let's see, 3. No, 3 cannot combine with anything. Um, well let's focus on ground floor really quick. Okay, let's finish the ground floor.

I will do ground floor, then first floor, then I will look in the vertical direction as well. So, we have ground floor. Uh, 8, 9. Yup.

Oh my gosh, wait. Okay, okay, okay, okay. Um, 8, 5, 6, 5, 4. Yes, we have that.

Um, can I think of any more zones on the ground floor? I don't think so. Yes I can, we can make them smaller, but these are the biggest ones, and that's kind of what we want. I can think of more zones.

Try to find all zoned designs. What's a zoned design again? A combination of zones. Okay, I'm going to first focus on finding the biggest combination of spaces and hopefully they intersect.

So 10, 7, we have 10, 7, now we're looking at the first floor. Uh, 3 is a zone in itself. No, I can make it bigger.

Well, each space can be a zone. Okay, so a zone is a combination of spaces, so there's just no... That's what it is. Okay.

I can think of many more zones then. So, we have 8, 9, that's a combination. We have 8, 4, 5, 6. I can think of another one on the ground floor.

That's just 8, 4, 5. 8, 4, 5. Create another zone. 4, 5, 6. 4, 5, 6. But that is it for the ground floor. Yeah, that's it.

First floor, so we already have 10 and 7. Um, how about 3, 7, 2, 1? 3, 7, 2, 1. That's a nice zone. 3, 7, 2, and 1. 2 and 1 can be a zone. 2 and 1 can be a zone.

2 and 7 can be a zone. I think that's all. We already have 2 and 1. Yes, we do.

7 and 2. Yes. 3, 7, 2, 1. We have it. Okay.

Well, okay, so now... I'm going to make a zoned design. No, no, no. We have also the vertical spatial component to think about.

So, 1 and 6. Starting from what I can see. 1 and 6. Create another zone. 2, 4, 5. 2, 4, 5. Those combined is 1, 6, 6. 2, 4, 5. 1, 6, 2, 4, 5. We can even include 7 and 8 in that.

So, 1, 6. 1, 6, 2, 4, 5, 7, 8. Yup. I think that's it. 7 and 8. No, 3 and 9 cannot be combined.

That is the biggest vertical zone that I could find. Create zoned design. All zoned designs for the given binding spatial design.

Say aloud everything you think and do. Okay. Oh, man, there's so many possibilities.

God. There are so many different zones. I haven't exhausted this either.

Create another zone. I can create another zone. 6, no, 6, 4, 5. This is a thing.

4, 5, 8 is already a thing. Right? Let me check. 4, 5, 8. Yup, 4, 5, 8 is a thing.

8, 9. Is 8, 9 already a thing? 8, 9 is a thing. 8, 4, 5, 6 is obviously a thing. Moving on to the top floor.

10, 7. Is 10, 7 a thing? 10, 7 is indeed a thing. 3, 7. 2, 1 is also a thing. 2, 1 is a thing.

Yeah, I think I got them all. How about in the vertical? Let me check the vertical. 1 and 6. 1 and 6 is a thing.

2, 4, 5 is a thing. Those combined is a thing. The only one I'm missing is probably 7, 8. I could make another zone from 7, 8. 7, 8, 9 cannot be done.

3 cannot be combined with anything. 10 cannot be combined with anything. That's it.

That's all I can come up with. Creating zone designs. Well, I need to make zones out of the spaces that are left.

The single spaces cannot be combined. So, zone 3. Yeah. Oh, crap.

Is 3 composed of 3 spaces? Let me ask. A corridor or room? No. 3 is its own single space.

I want to make a zone out of 10 and 9. It's often left out. Okay. Create zone design.

Holy crap. Zones to include. Okay.

How can I think about combining these in a systematic way? Let's try combining zones on separate floors and then try making zoned designs. Let's try making zoned designs with zones on the first floor, combining with zones on the second floor. And then let's try making zoned designs with zones that also span vertical spaces.

Okay. Let's do that. That simplifies it a bit.

Let's start with zone 1. I can combine that with 16 and 14. So, we have the bottom floor and then zone 14 is the top floor part. Plus zone 8. No, zone no.

Wait a second. I need to make another zone. 7, 2, 1. Spaces 7, 2, 1. Don't have that zone yet.

Create a zone. 7. 7. 2. 1. Yes. Create zone design.

1. 16. 14. Was.

Space 3. We just created zone 17. And then zone 15. 17.

Oh god, this is gonna be so big. Create zone design. So, can I do it? Can I start from the same point and make any variation on it? If I start with zone 1. Yes.

I can use zone 3 instead of zone 15. So, let's do that. Start with 1. What was it again? 16.

That's the bottom floor. Now we can do the top floor. Zone 3. Plus zone 14.

And we need to combine spaces 2 and 1, which is zone 7. And that's it. Create another zone design. I don't think I can make a variation from the starting point zone 1. Alright.

Let's try starting from zone 2. Start zone 2. Let's add zone, the bottom floor, zone 5. So that's the bottom floor taken care of. Now the first floor. I'll do it in the same way, can I do it the same way I did last time? Yeah, I can start, I can do it the way I did last time.

So, zone 15 plus zone, where is it? This is so annoying. Okay, so I have zone 15, which is there. And then I have zone, don't I have it? I should have it.

I guess I don't have it. Zone 17 and zone 14. Another zone to design.

So, starting from zone, starting from starting point zone 2. Last time I started with, by adding on zone 15. And now I can add, try adding zone 3 first. So, 2, 15.

Did I say 15? Why don't I start with the bottom floor, that's easier. More systematic. So zone 2, zone 5. That's the bottom floor.

Now zone 3 plus zone 14 plus zone 7 is a design. I think the key is to do this fast so I can remember what I did. Remember all the variations.

I think those are all the variations I can do by starting from zone 2. Yeah, I think so. Nope, that's not the case. And also it's not the case for zone 1. I can add one.

So, zone 1 combined with 16, combined with, so that's the bottom floor, combined with zone 6, combined with zone 15 is a thing. And I can do that for zone 2 as well, starting from 2. We add zone 5 to complete the bottom floor. Then we can add zone 6 and zone 15.

Create another zone design. Now I can incorporate the vertical components. We'll start with zone 1. Oh, actually there's no variations with the vertically combined spaces to make with zone 1. Yes, so we have to start from zone 2. It's the only option.

Then I can add zone 11 with zone 14 and zone 15. Right? Let me check. 2, 11, then zone 3 and zone 14.

That's a thing. Do another version of that with 15. What the heck? Darn, do I not have that? I should create another zone from just space 7. That's important.

Find all zone designs. That's a lot of zone designs. That's hard.

Okay, where was I? Starting from zone 2. I can add the vertical zone. 11. Yes, it's still about zones.

Yes. I think I'm in the right direction. Because for me, I don't know where to stop.

There are almost impossibly many combinations. Because if I have a PSD. A PSD starts with 1. If you have 1 zone.

So 2 combined spaces. And all the other spaces separately. So let's say I combine 2 in 1. And that I fill all the other rooms individually.

But then you already have 10. Okay, but there is only 1. The one with the lowest number of zones. You have that lot, that lot and that lot.

But the red one you made. That's why you have that lot. Or there, or there.

Otherwise it's a bigger zone. So it's already open source. I was a bit confused.

Because it says try to find all zones designs. All possible zones designs. And I thought.

So now I realized. That there are a lot of possibilities. But now I can be more focused.

Thank you. Nice. Okay, thank you.

My God. This is not the way I had it. This is.

This is the way I had it. Cool. Can we delete some suboptimal zones? I want to start from scratch.

Delete zone design. Delete zone one. All right, I'm also pretty confident we will not all the zones that I made.

Like, for instance, zone 10. Delete zone 10. Delete zone 18.

Delete zone 17, probably. Am I making a mistake? No, I think I can always get away with less zones. With 7. Is that true? Well, we have zone 17 plus zone 2 plus zone 5 is one possibility, but that would be easier if I just had zone 12 plus zone the other zone.

So I'm going to remove 17. Delete zone. I'm not going to delete zone 13 just yet.

Might be useful. Zone 8 is definitely useless. Zone 9 is kind of useless.

Zone 5 is kind of useless on its own. Zone 4 is kind of useless. Arbitrary, rather.

Or insignificant, negligible. Okay, let's see what I can do now. We'll start as we did before from zone 1, adding... Is zone 1 necessary? I think I can delete zone 1 as well.

Okay, well, starting from zone 2, we can add zone 3, zone 7, and zone 14. That's four zones. Starting from zone 6, we can add zone 15.

Zone... Oh no, I need to create an extra zone for that to work. 8, 5... Oh crap, no. Oh man, don't do that.

Yeah, that's good. Create a zone. 8, 4, 5, 6, 8. Nice.

Create a zone design. 6, where were we? 6, 15, 17, and 16. That's also four.

I can start from zone 11, add zone 13. Well, that's kind of redundant because I can also just make that zone 12, zone 15, zone 16, and zone 14. That's also four.

I wonder if a zone with just three is possible. I think so. Let's try something else.

So we had 2, 3, 14, and 7. What other combination of four spaces can I think of? 13, that, that, that, that, that's 5. 17, 1 above 2. No. 16, 2, 3, 4. I think we already have that. Yeah, that's zone... that's design 3. I think that's it, to be honest.

Vertical spaces. Yeah, that's it. That's all I got.

Pick one zone design you would like to continue with. Say aloud what you think. Please refer to the information sheet for an explanation about the concept of zoning.

Well, they all have an equal number of zones within them. Wait. Oh man, I can't go back.

Aw, crap. I found another zone design. So it's 3, 14... No.

No, actually. No, I didn't. That's good.

This is good. Okay. Please refer to the information sheet.

Well, I guess it doesn't matter. So we'll just pick number 3. Yes, next step. Well, yes.

I mean, I can't go back anyway, so... From every zone design, a structural design can be made. This time, pick one zone design based on the expected structural performance of the corresponding structural design. Say aloud what your reasoning is.

Well, they can all be stabilized. What the heck? Two zone designs exist. There is no more information about assignment 1. Zones should be as large as possible.

Zones should maintain spatial continuity. Zones may not intersect. Divide spaces.

A zone design consists of building spatial designs a whole volume. That means that zone design, every space, should be included in one of the zones. How a structural design is made from a zoned design.

Flat shells are placed at the boundaries of zones, resulting in stiff connections. Okay, well let's check zone 1. Zone design 1. Resulting in stiff connections, which means that the wall of zone 3, the middle wall of zone 3, and the middle wall of zone 2 combine to make one shear wall, but it goes through the middle of the design. That's not torsionally stable.

Same goes for the 14 and 3, 7, but there's also shear walls on the outside, so that's compensated for. I guess zone 3 is stable. I think zone design 1 is stable.

I also think zone design 2 is stable, as the walls around zone 6 and zone 17 make the whole structure stable, and for the same reason I think zone design 3 is also stable, because zone 12, the shear wall around zone 12, makes the structure stable. I don't know, I just don't know. I don't know, I just don't know.

Here you have a wall, and here you have a wall, and here you have a wall, and here you have a wall, and here you have a wall, and here you have a wall, and here you have a wall,