**Transcript**

April 4, 2024, 12:12PM

Hello.  
Hello.  
Yes, working cool.  
They can start the assignments.  
Where is it? Here.  
So I'm #3 yeah.  
AI, human AI, zoning assignment expected duration 25 minutes.  
Read things carefully.  
Sure, sure.  
Uh, OK, zoning.  
The method for searching for geometrically relevant shapes that represent the bigger picture of a zone of a building zoned designs can be used to create better Structural designs.  
Cool, important definitions.  
Building spatial design.  
BSD collection of Spaces, Space corridor, or room zone combination of spaces.  
Zoning the search for individual zones and combining those into a zone Design.  
Nice rules for zoning a 3D building.  
Spatial designs in this assignment zone should be as large as possible so as zone can never be a subset of another large zone.  
OK, zones should maintain spatial continuity.  
Therefore, zones can only be cuboid 3D, rectangular.  
OK.  
That makes sense.  
Zones may not intersect, slash divide spaces, so only combine spaces.  
OK.  
Yeah, yeah, yeah.  
Zone Design consist of the BSD's whole volume.  
This means that the zone in the zone Design.  
Every space in the BSD should be included in one of the zones.  
OK, example of zone design solutions in 2D.  
Disgusting.  
The three spaces zoned.  
Umm, but different colors, this bustier zone.  
Ooh.  
OZO. Space.  
Two could never be a zone by itself, since combining it with either one or three always leads to a bigger zone.  
OK, cool.  
How Structural design is made from a zoned Design?  
Lot shells, floors, walls are placed at the boundaries of the zone, resulting in stiff connections.  
AI and artificial intelligence tool is able to find all zones and zoned designs for a BSD dictionary.  
It can select the zoned Design, resulting in structural design with the highest stiffness.  
Cool IQD is an algorithm developed by neither university that can.  
This is human AI teams in finding diverse solutions by assisting by assessing diversity among BSD's and selecting number of most diverse designs.  
Solutions.  
Cool.  
Umm.  
Yeah, yeah, yeah.  
Cool.  
Next step, yes.  
Boo.  
OK.  
Uh, Step 1.  
Visualization to lectures.  
BSD AI has found all zones and zoned designs for the BSD.  
You can continue to the next step.  
I'll do so.  
Oh, I'm sorry.  
Step two, pick one zoned Design you'd like to continue with and say aloud what you think.  
I am not sure.  
Wait, what is this?  
This is a uh movie theater, so we probably want large spaces.  
Which one nice one is like that?  
Umm, OK yeah, I see the Blues.  
Quite big red is quite small.  
Turquoise is, yeah, long and flat, which I don't quite like.  
10 is small.  
Maybe that's a nice for entrance.  
I'm not sure.  
Umm.  
Yeah.  
OK here 10 and or.  
Yeah, red is and turquoise is small.  
OK, here we have red and yellow and blue and turquoise.  
All the colors.  
Very nice, uh.  
Umm I'm I'm I'm what?  
What do I want in a movie theater is the question.  
OK, I quite like in the Design one, how there's the tall space for the Blue Zone and maybe having the small space like the yellows also nice.  
So, but then in Design 2, we have two small spaces and they're far apart from each other, so maybe that's not so nice.  
Umm #3.  
Umm yeah, there's no tall space or small space, so I don't think that's a very nice design for movie theater Zone 4.  
The funky overlapping thing and really long spaces, but no tall spaces #5.  
Yeah, kind of equally sized spaces.  
But uh.  
Let's see #6.  
Yeah.  
In this case, there's a small space, no toll spaces.  
But.  
Yeah, I could see how green and blue could be combined, but if they're two different zones, then maybe they won't be combined in Structural stuff. Uh.  
OK, So what do I like and what do I not like?  
I quite like one in two.  
I think umm.  
I think actually maybe.  
It's hard to say because Design one has the red space.  
That's kind of awkward and designed.  
Two also has the red space.  
It's kind of awkward, although the red space is much better aligned with the other spaces than the turquoise, specially the turquoise space isn't as nice.  
So maybe the yellow space and Design 1 isn't also that very nice for the same reason where it's not really adjacent to everything.  
Umm, let's look at the other ones.  
#5. Yeah.  
So maybe I should also take out of the my options.  
Seven and eight.  
Since these aren't very nice, uh, what would 10 be used for in design?  
Two maybe like because it's only adjacent to zone Blue Zone 5.  
So all five?  
Yeah.  
With the numbers representing why they all different.  
Umm.  
Yeah, actually, why are the numbers all different?  
What does it say here?  
Ohm.  
Do the numbers mean anything?  
Yeah.  
No, no, OK, yeah.  
Umm.  
Which one would be nicest? Ah.  
It's hard to say.  
Movie theater what are the requirements for the movie theater?  
Like what kind of spaces are there involved?  
I think that would be a nice thing.  
What kind of species are going to be zoned?  
I think that would be nice to know.  
So like, of course, cinema Hall would be there some sort of reception, maybe a bathroom space.  
But then could you have corridors within zones?  
I think so because this is just about structure.  
You can have.  
Yeah.  
So I will actually say I like Design 2.  
Yes.  
So in design 2 next step yes, I am very sure.  
Pick one based on the expected Structural performance.  
OK.  
Yeah. Yeah, yeah.  
Yeah, so Design 2 will have the problem of the wall on top of yellow zone, so the red wall on top of the yellow zone.  
That's not really supported by anything.  
If that's a whole open space.  
Is it a whole open space?  
Like if you have one zone that's one whole open space.  
Yeah. OK.  
Umm, so which one does that nicely?  
Is there any of them? Uh.  
Is that actually relevant?  
Because there's always gonna be things on top of things.  
Uh. Bah.  
Whoa, that's a Big Blue zone in Design 7.  
Actually I didn't notice that.  
Uh, so that's actually not a very good design because no, also many options.  
No.  
What?  
What?  
What, what?  
Maybe the first one would be nice or not.  
So they're the problem of this 2 problems walls.  
So this one above 10 and this one above 9 in #2 there's.  
One problem wall, which is above 11.  
And Design 3 there is.  
Two problem walls above one and above 9 this Design there is.  
The three problem walls, two above one and one above 9.  
This Design there are.  
Ohh bull many problem walls.  
Oh, no.  
One above 11 and one above 2 two problem walls.  
Here we have.  
This is a problem wall.  
This is a problem wall.  
Yeah, so 2.  
Here we have.  
Yeah, this whole big span there above 3 and this whole big span above 3, so that it be probably columns there above nothing and that's not good.  
Umm here we have.  
Or.  
This, this, this whole thing, this whole thing.  
So let's say two.  
Also, maybe I'm I've preference, yeah.  
Oh, adapt the BSD, create a new BSD you desire with Max 7 modifications.  
7 modifications to umm.  
Where am I?  
OK, I'm here.  
OK. Mm-hmm.  
So.  
I think it would be quite nice to have.  
K size location we want.  
No, please refer to them information sheet.  
More information was doing as ID Oh well.  
Hmm, what do we size what?  
Ohh.  
OK, now I'm confused.  
No, I see the size table in the location table.  
Let's say if I want a space that has three and nine.  
The let me just try.  
Yeah, but no.  
All I have to modify this so.  
OK, OK, OK.  
OK, yeah.  
Ohh yeah, that's that's that makes sense, yeah.  
OK so.  
I think we should have small zones on the board or small BSD on the bottom, and then larger spaces on the top.  
That is what I think.  
So maybe then we should.  
Switch around.  
Let's switch around this area on top in this area in the bottom so.  
Size.  
Space one will also be a 612 three.  
And location will be the same place as.  
Two who?  
I think no six location 003.  
Three enter OK.  
Now.  
Or no.  
There's adding the space.  
Ohh can I undo delete space delete?  
I mean 11.  
It can move a space.  
Yeah, I think that would be nice here.  
Let's just add a space, some random place.  
OK.  
How many wait?  
I mean two modifications.  
No, I did want an undid one.  
That's not fair.  
What do you do?  
You do, you think has to be?  
No, because I made one and then deleted one that I made.  
There was otherwise if you use.  
You can then it should be a month.  
OK.  
Yeah, if you actually delete something should be modification, but there's no undo button like there was with the diagonals.  
And now I feel kind of scared.  
You know, I have less options.  
OK, fine. Whatever.  
Ohh OK.  
Umm, So what do what?  
That's actually not very many things I can do.  
Then I can OK zone one and Zone 6 are already the same, so I really just need to change 245, switch them around.  
So what's the best way to do that?  
I can umm umm.  
Resize space.  
We can move this space.  
I'll move a space.  
I'll move space #4.  
2600.  
So how has overlapping spaces?  
Snake in change zone #2 so resize space so two the new size yeah.  
And will our sheet where will it resize from?  
Be another modification.  
I want to make it half the size.  
Umm.  
Let's see, we're looking at 7-6 sizes, 612 three to want to be 663.  
Umm 663 and of course it goes overlapping.  
Let's move a space zone #6 move it in the Y direction.  
So we will have.  
Don't 6.  
063 no.  
Zero.  
No, not zero, no zeros.  
Once you're at the bottom 660.  
Uh.  
Ship.  
That was the wrong one.  
Hmm hmm.  
OK, let's move back.  
Move back zoom 6.  
Zone 6.  
Yeah, but I'm.  
Yeah, I am.  
I but it's confusing umm.  
Ohh.  
How do I fix this?  
I can make zone 6 smaller.  
I'll do that.  
Resize space, space, space.  
Make that smaller to 663.  
That makes it that size and I need to remove zone four.  
Yeah, remove 4.  
So that's good and now 5 needs to be resized and moved, sure.  
I'll be I'm out of.  
I might have modifications.  
And if you actually, but what's the what's the purpose of having limited modifications?  
Yeah.  
Maybe another way to do it would be to say.  
They keep the same geometry.  
But then.  
Forum.  
Yeah.  
Comes out and you do another modification.  
Just can I?  
Ohh.  
Evil.  
OK, let's see.  
Let's see what it does then.  
Sure, I removed the space, but whatever.  
Ohh, and it's upside down.  
Hello. Oh.  
OK, so let's see.  
That there's space in space.  
Is it?  
No notes on top of each other.  
Umm, what was my goal?  
Also forgot how many spaces there are, like zones.  
There needs to be, so I don't think I kept that in mind while designing.  
Ohh my God, this kind of sucks.  
These kind of suck.  
What the heck?  
What do I need to do?  
In the bottom screen, only the two most diverse zoned designs.  
Some expert algorithm.  
I need some slight improvements.  
OK so.  
She was all zoned designs, but I pick one Design you'd like to continue with.  
I don't like wait actually Design one is is not too bad cause sick.  
Yeah, Zone 6 is too tall and the only problem is number 16 on top of #10.  
The only problem?  
And it creates, yeah, you have, like, some bathroom space, some entrance space.  
So it's only three zones.  
Was the other ones are more?  
1234. Yeah.  
What?  
Well, this one has even more #7 has even more 123456.  
Seven. Whoa.  
Umm, I don't think we need that many zones, especially not small ones for a cinema.  
Umm.  
I think Design one is nice.  
Maybe you'd be nice to also have a scale with this so you can see is it in meters?  
The sixes and threes.  
I think I should do it understand.  
Would that be a lot more as well?  
Yeah, right.  
Yeah, cause this way.  
Now I have a.  
Yeah, like a 3 meter tall cinema, yeah.  
I I I yeah.  
Could be, yeah.  
Ohh what's a nice one?  
What's a nice one?  
I think I will just go with the design one.  
Oh no, this is just about zones or structure.  
On a I think it's just general, so I think I'll just pick one because that's integrated structural and zoning nicely.  
So I'll say one have to type it in here, not just click it.  
Yes. Yeah.  
Next.  
How much Intuit performance assignment?  
I didn't like it very much.  
I think what?  
What didn't I like about it?  
It's quite confusing.  
Uh.  
Who will be confusing?  
We arranging it's not very intuitive.  
To 12.  
And the limit.  
Gives me stress.  
That they need to do the right steps.  
Perf the fully to make the space.  
How I want it to look?  
Yeah, sorry.  
Uh, how would you rate the level of ease?  
Uh.  
Yeah.  
Yeah, I think you understand, right.  
Yeah, it's also explained in the last one how well do you think you performed this assignment.  
Very bad.  
I I didn't have no idea what I'm doing.  
But it was quite.  
Confusing.  
And think that I could do better if.  
Uh.  
Yeah, not so much.  
For me, yeah.  
Do you think it would have gone better without the AI tool that identified all the zoned designs for you?  
Umm.  
Who?  
That's a tough question.  
I think for the first one, yes, no.  
For the first one, no, but the for the first one, yes, the second one, no.  
Yeah.  
So I put no idea then.  
Yeah.  
Or the first one?  
Yes, because I was thrown into a random.  
Umm space, the vision and.  
No idea about the.  
The idea behind no idea behind the concept.  
Behind this space.  
Uh, division.  
But for my own Space Division, I think that as a designer I had a.  
More.  
Integrated.  
A.  
Subtool idea?  
Between the spatial layout and.  
The zoning.  
Do you think the AI tool can perform zoning better than you? No.  
Some of the zoning options by the AI where kinda bad.  
But not all.  
Which criteria did you keep in mind?  
Will perform the assignments.  
Umm.  
What types of spaces I need? Prog.  
Symmetry to approximate T of spaces.  
Uh heights and length of spaces.  
What else did I think about?  
I was thinking about.  
Uh, yeah.  
Structural feasibility or like UM but but but, but what's the word on?  
Undisturbed zones with Structural no Structural Structural elements.  
Disturbing zones disturbing the middle of a zone below.  
Yeah, that's what I have in mind.  
Umm.  
I think it's about it next, you know, step in step 5A.  
Limited number of zoned designs.  
Only the two most diverse ones were shown, I forget which ones to have.  
Five was uh for you to choose from.  
Did you prefer choosing from the limited zone options, or from all the zoned design options?  
OK.  
Yeah.  
So skip this.  
Also, please leave your email below.  
Should I or we already did I.  
Yeah, this one is.  
Didn't like this one.  
No, I get it.  
Yeah.  
Wait, I will next and cool.  
Wait, can you answer?  
I think we need to.  
They wait.