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|  | **Timespan** | **Content** |
| 1 | 0:00.0 - 0:29.7 | P1: Male, P2: Male, P3: Male  ===============================================================================  P2: Right, so we've read the assignment and we not sure about how to begin,  P1: it looks a bit strange because we have to design like a GUI and we haven't done that before. let start from the top I guess |
| 2 | 0:29.7 - 0:54.2 | P2: we can start with the context view, open my book to see what it said,  P1: do it in paper right. yup. |
| 3 | 0:54.2 - 1:51.3 | P1: Okay, describe the relationship, dependency and interaction between the system and it's environment, people, system (inaudible) which interact, so I guess the context model will mainly focus on the people.  P3 : so the students.  P1: the students indeed. and we have some external existing software packages providing relevant mathematical functionality |
| 4 | 1:51.3 - 2:07.4 | P1: so that's the external party I guess.  P3: is the teacher of the course somehow involve or relevant? |
| 5 | 2:07.4 - 2:29.7 | P1: I did not read that but perhaps.  P3: no probably not. it just she .  P1: so the teacher has no influence. |
| 6 | 2:29.7 - 2:56.3 | P2: shall we use Visio or I just.  P1: just scratch it because we will have to adapt it many times coz Visio kind a annoy.  P2: yeah. it also easy easy to change without starting over.  P1: that is right. yeah. or we can or I can start Visio up. |
| 7 | 2:56.3 - 3:29.9 | P2: the TS. Traffic TSS .  P3: so that is the one in the middle or something like that.  P1: create more shapes. UML.  P2: I'm gonna make an new UML. right.  P1: yeah I guess so for the context model. figure. |
| 8 | 3:29.9 - 3:56.0 | P1: we gonna name it student right so not students.  P2: yeah. I'm taking look at the example.  P3: it says in the example. customers.  P1: yeah customers. so students. |
| 9 | 3:56.0 - 4:38.1 | P3: and how is that existing software package, is that like a package like a whole or should we like split it up in something like little things .  P1: let see how they mentioned it. they say reuse existing software package provides relevant mathematical functionality such as.  P3: so it basically just only mathematical.  P1: so we could call it mathematical software packages.  P3: yeah something like that.  P2: so that’s kind a how they do it.  P1: the external system is that. the mathematical software packages is an existing software package |
| 10 | 4:38.1 - 5:04.6 | P2: yeah. but they are reusing it in they system I wouldn’t call it external. it's kind a like this. so these are external and these are internal kind a system so maybe we would like that.  P3: so that internal more.  P1: yeah ok. so they included in their code. so they don’t. they won't make a call to an external system to validate it. |
| 11 | 5:04.6 - 5:20.2 | P1: right. so we will make it internal.  P2: we call that the mathematical software package. MSP. |
| 12 | 5:20.2 - 6:01.6 | P1: I will. try to make it here. in Visio.  P3: maybe we should also have something like the students database. might be useful for example if the student can like log in log out to see what kind a simulation he did. |
| 13 | 6:01.6 - 6:51.7 | P2: well maybe not tied to an account but more to like a file so he can save his file.  P3: yeah.  P2: so he can save his file. he doesn't have to log in and see his (inaudible).  P3: so at least something like a database storage.  P1: I missed it. what do you said.  P3: basically some sort of database that storage like the previous simulation.  P1: storage setting.  P3: yeah.  P2: well not really setting but just when he made simulation he can store simulation .  P1: like a history.  P2: kind a Visio drawing you can save it to file.  P3: or maybe even the setting as well.  P2: but what kind a setting. |
| 14 | 6:51.7 - 7:04.2 | P2: these are in. the thing you said are the traffic light, the density and stuff they are really specific from the actual. |
| 15 | 7:04.2 - 7:11.7 | P1: I cannot find UML. |
| 16 | 7:11.7 - 7:23.8 | (Silent) |
| 17 | 7:23.8 - 7:38.5 | P1: is there also. node (inaudible).  P3: node is just isn't explanation or something.  P1: yeah. |
| 18 | 7:38.5 - 7:53.3 | P2: so is the thing we just talk about it . is it really a database or ?.  P3: maybe not the real database but at least some kind of file system |
| 19 | 7:53.3 - 8:26.6 | P3: yeah maybe functionality because calculation sound more like calculating something |
| 20 | 8:26.6 - 8:51.4 | P1: smaller. okay.  P3: make it good. |
| 21 | 8:51.4 - 9:12.1 | P1: okay so we also have the database.  P3: yeah maybe not name it database. but maybe name it something like file system or file storage or whatever |
| 22 | 9:12.1 - 9:34.7 | P1: yeah. yeah it's not really a database.it also not. is it a file system?. we have to determine how we wanna save the data then I guess, because that is also relevant for the information viewpoint later on. |
| 23 | 9:34.7 - 9:42.3 | P1: so how would you like to save it. perhaps some sort of xml or something. |
| 24 | 9:42.3 - 10:14.3 | P3: yeah. that would be fine. yeah that would be the best.  P1: I guess it also the easiest form to implement. if you are talking to what was it. students who just complete basic computer science degree. so xml that's a file system. so we gonna have a file system. |
| 25 | 10:14.3 - 10:46.6 | P1: okay. and I would place a comment there also I guess. which state that it was for xml files with save data.  P2: yeah. |
| 26 | 10:46.6 - 11:11.3 | P3: and another part of the context are those software developers which have to implement it. I think because it should be clear for them.  P2: is it ?.  P3: they don't really use the system. but they have to implement it. |
| 27 | 11:11.3 - 11:56.8 | P1: perhaps some kind of account system. that students can see other . students can log in.  P2: yeah. I think they would've made it unnecessary complex.  P3: yeah. I think so as well. it doesn't add that much interesting functionality.  P1: so we won't make it an online software. it just computer software.  P3: yeah. it also easier to implement.  P1: yeah. |
| 28 | 11:56.8 - 12:16.0 | (Reading) |
| 29 | 12:16.0 - 12:47.8 | P1: there is not so much functionality going on.  P2: there is about this I think. but another thing of the context view point is the scenarios, interaction scenarios I'm looking at up right now. it's kind a UML sequence diagram for that. |
| 30 | 12:47.8 - 12:57.9 | P2: chapter 10. and maybe we can use this. and that also part of the assignment. |
| 31 | 12:57.9 - 13:24.7 | P2: design the interaction.  P1: the interaction between the students and the the system. but see where it's state so. you must design the interaction that is one.  P3: so that basically the line between students and this the essence of context.  P1: yeah. ok so this is about it I guess. |
| 32 | 13:24.7 - 13:47.4 | P1: try to make it pretty. it's not working. still look ugly.  P3: Visio things.  P1: okay |
| 33 | 13:47.4 - 14:05.8 | P1: I guess this pretty enough.  P3: yeah. maybe a little bit smaller.  P1: okay file. save. |
| 34 | 14:05.8 - 14:33.9 | P1: graphs. software architecture. new map.  P3: assignment B.  P1: open. save.  P3: context view.  P1: okay. so yeah I guess that is the nice idea to do the scenario this way. |
| 35 | 14:33.9 - 15:02.5 | Instructor: Hello. I was just (inaudible). |
| 36 | 15:02.5 - 15:13.6 | P1: yeah but the scenario I guess that is the way we do. |
| 37 | 15:13.6 - 16:05.2 | P2: and there four kind a requirements. so they must be able to create a visual map. they must describe behavior of the traffic lights. and simulate traffic flows, and change traffic density. so this are the four scenarios. I would say. four distinct functionality. but maybe make an interaction scenario four of them.  P1: so you wanna create four individual interaction scenario. it might be the best. okay. let start with the first one. |
| 38 | 16:05.2 - 16:41.5 | P2: this between the system elements. detail.  P3: isn't there example that less specific.  P1: no. okay let just think through that.  P2: is the UML notation include notation. |
| 39 | 16:41.5 - 17:16.6 | P1: lets think. because during the lecture there was notation explained. lets look it up. when was it. I'm not sure. (inaudible) |
| 40 | 17:16.6 - 18:37.9 | P1: it was. this. this. message sequence chart.  P3: was that the example with the doctor and the.  P1: what was it.  P2: the log in stuff.  P1: so we can just do that the message sequence chart.  P3: that is more like log in, created map. added map. load. run simulation something like that. but if the state diagram basically cover in basically in one state diagram we can cover like all those four functionalities.  P2: draw back of the state diagram also explained. |
| 41 | 18:37.9 - 18:52.7 | P2: lets see. (reading) |
| 42 | 18:52.7 - 19:27.7 | P3: but maybe with this time constraints would be better to make a state diagram with the four main functionalities, instead four sequences.  P1: okay lets do that. more shapes. software. state machine. this is I guess.  P3: yeah. |
| 43 | 19:27.7 - 20:58.5 | P1: so the initial state.  P3: do you have to name that.  P1: no I don’t think so.  P3: yeah something like the initial state always something like required before you can basically make the first transition. so that something like. the students must have it download before. like we perquisite before we can basically make first transition. the state after the initial state.  P1: okay so we just say.  P3: the students must download the software. the software must have been downloaded.  P2: I'm rethinking this is the interaction between the system and the users it really best way to show that in the state diagram, because we are now describing state of the system. they can change but they might not be change due the interaction. not really. doesn't really follow that well from the notation. |
| 44 | 20:58.5 - 21:32.5 | P2: so that can be state transition but it's up to the user and the reader I guess. what kind a .  P1: yeah that is right. so what model you propose ?  P2: I'm not sure  P3: sequence chart more useful for that but now we have to make it like four. |
| 45 | 21:32.5 - 23:09.6 | (drawing)  P2: who kind a do like.  P1: I guess this is the right way. so this is UML do we intentionally has it to do.  P3: that covers like all the functionality basically, sort of.  P2: yeah we could do that yeah. because there is kind are some sequence.  P3: yeah of course first of all like you create a map,  P2: then the road and setting of the road and then traffic density.  P3: so it come basically included all in one.  P2: pretty sequential. so created visual map, describe the behavior of the traffic lights, start a simulation and then during the simulation change traffic density.  P1: UML sequence. I guess that's it.  P3: yeah. nice |
| 46 | 23:09.6 - 25:00.4 | P2: okay. so the first is there (inaudible). we only have two maybe three for the pretty mathematical.  P1: yeah. so I just MSP, the user, and this the system. TSS. lets name it. and this is user.  P2: students.  P1: what this students do, send some message.  P3: well the basic first functionality was he has to be create a visual map of the area,  P1: start map editor ,  P3: something like that,  P1: OK and then you get return message . map editor open.  P2: then you can create a road.  P1: create a road. road created. that is one option you could also say road is not created.  P3: why, yeah it could be  P2: but. this isn't interaction right, this is scenario.  P1: we can say indicate whether road is created. |
| 47 | 25:00.4 - 25:10.2 | P3: I think you should do it like road created. (inaudible) |
| 48 | 25:10.2 - 27:21.5 | P1: okay. so we just gonna do road created, okay,  P3: and probably the MSP only involve when there was simulation it self and road density and stuff like that I guess.  P2: yeah I think so, queuing the random number generation.  P1: you can say create road and then the system might response, identify road length.  P2: yeah but I was thinking maybe even more abstract like create object.  P1: ok so.  P3: and I like traffic light place automatically when there is basically an intersection created.  P2: that a choice we can make. I think there were something about.  P1: no we have our own choices, because it said so, the traffic lights will only have four road connected.  P3: oh yeah. every intersection on the map want have traffic light. four way basically means like just.  P2: there is no T.  P2: always across.  P3:so yeah than it would be the best thing that when the road is place and then automatically it's basically made an intersection. if it's like overlap or something. and then immediately some traffic light are place |
| 49 | 27:21.5 - 28:15.5 | P2: but, yeah object like cross road. but those are thing that we have to give more specific about in the information.  P3: so basically identify object property basically covers that.  P2: is identify is right word?  P3: not really.  P1: I would say indicate. indicate object properties, and then the user responds with the object's properties. we'll just prompt. |
| 50 | 28:15.5 - 28:41.6 | P2: if there is road creation then you could really graphical like in Visio extend the road you just dragging. property of the stop lights which time it stays green or what ever, those are not very easy to do graphically. |
| 51 | 28:41.6 - 29:18.2 | P2: but this is more straight than I think.  P1: ok and next. indicate object properties. that's back to the system and then we respond I guess. object created. and that's the entire. that's all I think. |
| 52 | 29:18.2 - 30:20.7 | P3: so you make like four of those.  P1: yeah but the object properties is already behavior of traffic lights. that's already an object property.  P2: yeah  P1: so perhaps we're moving a bit.  P2: into requirements two and three.  P3: yeah.  P2: might not be necessary (inaudible).  P3: I think it would be best to.  P2: it might be best to do in one but .  P3: because when you split them out into four like the first it wouldn't use the MSP so.  P1: yeah. so we can do this for road or object creator and the traffic lights what would we do, what we would automatically replace them ? when road is a. we can, |
| 53 | 30:20.7 - 30:45.3 | P1: queuing theory. perhaps we can't do that,  P3: I would like at functionality two and then like a not the (inaudible) stuff. |
| 54 | 30:45.3 - 31:30.8 | P2: this one does not cover.  P1: I think this is enough. so we'll say.  P3: but don't do add like functionality two and four.  P2: this does not cover the . so maybe this is about requirement one and two and then (inaudible) which is more about traffic flow. |
| 55 | 31:30.8 - 32:05.8 | P3: maybe we should remove the MSP from the other one?  P1: no would just leave it.  P2: because it show that it consistency with the. so we have student. TSS. MSP.  P3: I would like from where we start now.  P1: base on the simulate traffic flow on the map.  P3: so basically you have some settle. |
| 56 | 32:05.8 - 32:25.7 | P3: all those object are basically properties are define and there.  P1: start simulation.  P2: or maybe we can start again open map. added new map.  P1: open existing map. |
| 57 | 32:25.7 - 32:43.2 | P3: yeah . we called it map ?.  P1: we can. okay. I don't think map opens. |
| 58 | 32:43.2 - 33:47.3 | P2: traffic simulation, that's that already use some functionality of MSP, I think so right, random number generation.  P1: what do you use random number generation.  P2so I think the amount of car that come out of road.  P3: but that is not like really random.  P2: is not really random but you should use random probability.  P3: yeah true, because that happen in real life.  P2: so if he say there is like five cars per minute than it shouldn't be like every five seconds car . yeah like .it should be five car in a minutes more or less then distribute they are not equally (inaudible). |
| 59 | 33:47.3 - 34:40.3 | P3: we should like call this a call for certain calculation or functionality or just indicate more generic like call for statistical functionality like that. because it's basically is part of the context. no wait MSP is part of the internal. I think we should describe more specific then. if it was external I think we just would call it more ambiguous. don't have to know like how external things exactly work. |
| 60 | 34:40.3 - 34:51.8 | P2: we have in context view something else because then maybe all we need something (). |
| 61 | 34:51.8 - 36:02.0 | P1: it's look like in the object scenario it would also communicate with the MSP because when you create an object. it stated here. after altering the map's timing scheme they should immediately see the changes in the traffic pattern.  P3: is it like the simulation should we like on and off or there always real time changes.  P2: timing scheme is not really mathematical stuff it just they really (inaudible). doesn't really depends on the mathematical.  P3: its more like simple property. |
| 62 | 36:02.0 - 36:46.1 | P1: so we'll use in the object let just use this one, create object or roads and no traffic light. because traffic lights we create different scenario in which we create traffic light. we indicate the traffic light properties and immediately we will send the call to the MSP the packages to check whether or not this works. it's okay. |
| 63 | 36:46.1 - 38:58.6 | P2: because there is dependency between traffic lights.  P1: so if we do that. and then the MSP can also immediately show whether changes in the pattern. or no that something else. that's in this. start traffic simulation. and the MSP will do the call functionality. we can't make it too difficult. because we will use a lot of functionality.  P3: yeah  P1: responds.  P3: base on that. there some sort of real time visualization.  P1: real time response.  P3: yeah. something like that  P1: so with the response, the students can know what it can do. it can then changes .  P3: but isn't like that property of object,  P1: yeah, I would say changes object properties. because traffic density was an object of road. after changing the object property it will call again to the MSP. if it response, and this time the systems will not give real time response. it will. |
| 64 | 38:58.6 - 40:33.0 | P1: let say real time response.  P2: different. it would also mentioned the difference between () all say.  P1: it said so.  P3: so could have done something like visualize road density for example. green road is like really low density red for example really high. for example the color of the road might changes.  P2: they see the result do to the in the simulation.  P1: so again there is no real time response. we wont.  P2: the simulation will keep on going like take this input amount car come in on the road. with the kind of random distribution and then it just run see what happen. there's a lot of split. traffic jam.  P1: ok so this is it.  P2: I think I'll ever call functionality respond to this, yeah. really generic maybe mathematical functionality. ().  P1: wow. lost word.  P3: it's more like crystal mathematical functionality.  P1: good luck transcribing that. |
| 65 | 40:33.0 - 41:10.9 | P1: call mathematical functionality. because respond still the respond.  P2: I think it could like parameters that the system uses to create the visualization. response parameter.  P2: return parameters. so the system . real time graphic visualization.  P1: so do we keep it this way.  P3: we have it like real time response or visualization. visualization I think. |
| 66 | 41:10.9 - 42:23.5 | P1: so this way. I think it's pretty complete. and looking at the time. I would also say. how do we call this.  P2: simulation scenario.  P1: okay. so we'll have object scenario now and simulation scenario. I think this it.  P3:for the context.  P1: yeah this the context. great. and this is also correct.  P2: yeah the file system maybe we can use for later. the file system also included in interaction scenario.  P1: I don't think we have the time for that. okay, but I like where are we going at the moment. ok so that's the context view. |
| 67 | 42:23.5 - 42:54.8 | P1: context view is pretty broad.  P3: within in the documentation basically we have to add rationale, description, and stuff like that.  P2: so the next thing is we do the functional architecture. functional viewpoint.  P1: yeah. |
| 68 | 42:54.8 - 44:00.5 | P1: what kind of, architecture that do we wanna create.  P2: we can try to make the functional architecture module from the one that we learn from the lecture or functional structure model that is in the book.  P1: the book is UML focus for everything. |
| 69 | 44:00.5 - 45:10.9 | P1: so if we go for the UML. we will have more of box and line diagram.  P2: box and line are different. this are UML .  P1: or wait. here is it.  P2: figure 17. in the book. and box and line less formal. yeah. but that custom then we should have to define for each. find the meaning of the notation.  P1: for the UML?.  P2: if you use this. UML is more.  P1: is no problem UML I think it's okay. so lets just do this. |
| 70 | 45:10.9 - 45:58.7 | P3: so we do. this one. oh yeah. the component diagram. isn't that more like word flow.  P2: it might be the one that (inaudible). |
| 71 | 45:58.7 - 46:55.5 | P3: which arrow. with round thingy.  P2: do we need it ?  P3: what does indicate ?  P2: I think this are interface. |
| 72 | 46:55.5 - 47:35.6 | P1: it just a functionality called the green the different subjects. which component do we have. |
| 73 | 47:35.6 - 48:03.9 | P2: the activities shown in book you can identify (reading).  P3: so you've basically maybe MSP for all the mathematical functionality.  P2: yeah. |
| 74 | 48:03.9 - 48:45.8 | P3: maybe some sort of component or . visualizing things.  P2: is it be good to use the model view controller.  P1: I'm thinking |
| 75 | 48:45.8 - 49:23.9 | P1: could you see if not model view controller. I'm just say what is the MSP is,  P2: but also.  P1: in the model we will make all the a. can we do .  P2: there a chapter on |
| 76 | 49:23.9 - 50:22.5 | P1:cin the model we can also mentioned the transformation to an xml file. the file system we will put there. I don't think this is a bad view. you can use it. there is not so much database stuff going on there.  P3: true.  P1: database communication.  P2: although is there any database in the object, their position.  P1: but that the xml file right. |
| 77 | 50:22.5 - 50:38.3 | P2: yeah.  P3: but I think the functional view isn't that large in this case any way so. |
| 78 | 50:38.3 - 51:26.4 | P1: so you wanna do the model view controller?  P2: yeah. but maybe the functional architecture model is better option if we (inaudible).  P1: let just do that. because that is no use in the fixed. okay so .  P2: functional element.  P1: just name it I will created classes and will the ordered. |
| 79 | 51:26.4 - 52:39.0 | P1: creating road.  P3: is the way do it like. creating a road or creating object.  P2: yeah I'm not sure because the thing that I'm getting from the requirement is that you can only create road and the system makes the traffic light in intersection but that maybe also.  P3: maybe that's some kind of module. well seeing from the perspective of the students they can only create the road, its seems from the perspective more of the system. and the functional view is more like seeing from the systems right.  P1: so we will create object. |
| 80 | 52:39.0 - 53:15.3 | P2: which is kind a class of road, intersection, traffic light.  P1: we make two separate classes for it. like this.  P2: like a road and a road intersection. right.  P3: I guess that is correct. because you have like the road where the cross end of course .  P1: okay. |
| 81 | 53:15.3 - 54:35.6 | P2: so there is traffic light behavior. and traffic light behavior which is traffic light sequence. I think there are distinction we made there the sequence. traffic light on most road is more about the object of the cross road which sequence that the traffic light will go on and off. and there is object for each individual traffic light which time is uses the.  P1: okay.  P2: that what I think .and also. is that (inaudible).  P3: no it sound fine.  P1: I'm little bit lost and little bit puzzled. what do you trying to say. |
| 82 | 54:35.6 - 56:39.4 | P2: I'm trying to say that there's property of an individual stop light. there is also the property of the sequence stop light that goes on and off. on the cross road.  P3: so more the dependency between the individual object.  P1: okay.  P2: the sequence and light which are different. the sequence is about (inaudible),  P3: just like the flow of the traffic.  P1: so there is . we have some kind of traffic light module.  P2:I don't know.  P1: traffic light, create object, that's more a functional view point and . what you can do is. I guess. after assigning the property it will automatically calculate whether the traffic lights correctly settle. so we can put it under here.  P2: ok  P1: how do you called it.  P2: the system should not allowed. so when you added property (inaudible).  P1: validation module.  P3 is that only for like traffic light or.  P1: also for the road I guess. and the road intersection. no the road is always fine.  P3: might not be |
| 83 | 56:39.4 - 57:32.8 | P2: we might be thinking to much in the information view.  P3: I think that as well. because it might be in information view is more like the distinction between modules that sort of functionality so maybe we should even like leave out like thing like road, traffic lights.  P1: okay so we have here object module,  P3: yeah something.  P1: validation module. but do we have GUI.  P3: is the validation module is the one you just talking about.  P1: yeah that we just talking about. |
| 84 | 57:32.8 - 58:20.3 | (silent)  P2: I think it's better to have coffee break. okay so break for 5 minutes. |
| 85 | 58:20.3 - 58:54.2 | P1: okay so welcome back. we have a nice break. so lets continue.  P3: so now we have the module validation, on check mathematical and GUI, what else should we have. not really sure |
| 86 | 58:54.2 - 1:00:31.5 | P3: you know this might be it already.  P1: so we have the GUI. everything start from the GUI.  P3: yeah.  P1: from the GUI you can create an object.  P3: yeah. and then module uses the validation module and mathematical module. or .  P1: does it use the mathematical module. it uses the validation module, to check whether everything is correct, and the mathematical module is mostly use as we describe it before for running the simulation. so perhaps we have the GUI but we also have simulation module.  P2: that becomes more of element view. so this the example from the slides.  P1: ok so we wont called it module. we have object then, validation just remove the module. and here called MSP. and simulation and the GUI. I guess that is it.  P3: yeah. |
| 87 | 1:00:31.5 - 1:02:02.4 | P1: we don't have that much.  P3: is not any larger.  P1: is no no crazy large.  P3: so we might just connect the link between modules.  P1: yeah and lets that add some parallelization.  P3: or we just add notation in the documentation.  P1: where is it. where can I give my arrow, an arrow head. so from the GUI to the simulation. oh no the other way around. no no no. move around. |
| 88 | 1:02:02.4 - 1:03:17.1 | P1: from the GUI to simulation. we have start simulation or run simulation. and then we also have this.  P2: (inaudible) the map of the road. the map would be better. then we can add object to the map.  P3: but we might already go to much to the information view like this. because the map has object.  P2: yeah.  P3: we might just called it GUI.  P2: yeah graphical user interface is to generic.  P3: object is also quite generic. |
| 89 | 1:03:17.1 - 1:04:34.8 | P1: yeah it is. I would just say GUI, because we want to keep it generic. (drawing) |
| 90 | 1:04:34.8 - 1:05:36.9 | P1: oh this is just great.  P2: isn't there are something like this. there's a . have we followed this kind of . there's a map. map editing. or map overview.  P3: yeah.  P2: map editing. map validation. and simulation. that might work as well . and then in the simulation there's a user .  P3: and the mathematical stuff basically outside of it.  P2: yeah. but then simulation there's interaction with the user changing the traffic density. here the editing also with user interaction. and then validation uses the MSP.  P1: okay. |
| 91 | 1:05:36.9 - 1:06:43.4 | P1: I can understand. with out my power just down with the second. it's very annoying. what about that William. it was my life work. |
| 92 | 1:06:43.4 - 1:07:23.7 | P3: we called editing or editor or.  P2: using the same kind.  P3: oh yeah. that is fine. and MSP is outside basically of that box or.  P2: yeah |
| 93 | 1:07:23.7 - 1:09:28.5 | P1: but do we view it as external.  P3: in this case .  P2: yeah but this also.  P1: no but we decide it internal. this might be other.  P2: so from the map overview. so maybe . maybe we can start thing. follow this.  P1: this is the user map overview.  P2: map overview starts from the opening the map. map open. |
| 94 | 1:09:28.5 - 1:11:11.9 | P1: okay. this is the user. the user input.  P2: this just start of the map.  P1: open map. so editing. user input this way.  P2: yeah.  P1: in simulation also has user input. I guess.  P3: what way does the user give input during the simulation.  P2: changes the road density.  P3: oh yeah.  P1: changes object properties. edit map.  P3: and those module has to be linked to each other I guess.  P1: yeah. which one do we want to link to which one. map or view we can go to simulation. I guess. |
| 95 | 1:11:11.9 - 1:11:55.5 | P3: that shouldn't mean from this you can go to this or we should mean like something else.  P1: we can do it here run. simulation. like that. I think this already enough. but it so ugly.  (drawing) . |
| 96 | 1:11:55.5 - 1:13:52.8 | P1: okay. run simulation from the map validation that's called from the editing part.  P2: yeah, and then (some body comes in. talking in Dutch)  P1: map validation .editing. so check map. check correctness. could mentioned like this. this. put like this. check correctness.  P2: well maybe this doesn't go back it maybe goes to map overview.  P1: it will immediately move to .  P3: still have to get the direction of the arrow.  P1: yeah I will. it's pretty annoying, I hate Visio. |
| 97 | 1:13:52.8 - 1:15:53.5 | P1: this way. okay. and this. map correct. oh no ?.  (drawing)  P2: okay and that it uses.  P3: and the simulation uses MSP as well or not.  P1: it does right because if you change the object property you will immediately talk to the MSP. so map validation use MSP. okay like this. so how do we called this. you could mathematical check also  P3: yeah.  (drawing)  P1: okay. |
| 98 | 1:15:53.5 - 1:18:20.0 | P1: how do we called earlier.  P3: mathematical (inaudible).  P2: check parameters.  (drawing)  P3: yeah. we would call it also.  P1: and then we also have one of simulation. to MSP.  P2: yeah and the return as well. or is it from. yeah.  P1: this should be arrow. this way. (drawing) so this is mathematical check. is the same. this is check or ? okay. is this correct.  P3: is not mathematical check.  P2: is more uses the random number generation and statistical distribution.  P3: so mathematical functionality.  P1: it will respond also, or will it will go through this. return parameters. map validation. map update, and run simulation again.  P3: I think so.  P2: we can see it as.  P3: like outside this is (inaudible) functionality is basically be use in real time update in here is more like to start and stop.  P1: we will respond it.so  P3: return parameters. |
| 99 | 1:18:20.0 - 1:20:23.5 | P3: yeah and then, basically that one should be request mathematical functionality or whatever.  P1: so I think this it. looks okay.  P3: it's fine.  P2: there is something with sensors.  P3: aren't those sensor part of information view.  P1: the sensor is part of the simulation I guess.  P3: so sounds like certain object that can be place in map.  P2: yes.  P3: simulation basically cover everything.  P1: so the sensor are in simulation.  P3: no no no. is the object. yes the object I think.  P1: you can place them.  P3: yeah. you can place them on the road or some traffic light or whatever. so don't I think that to be included somewhere.  P1: yeah. we also don’t have the time to go into full details. so this is the general functional architecture. if this is not enough. I'm sure they will tell us. |
| 100 | 1:20:23.5 - 1:22:08.3 | P1: so lets make the last one. first must decide on how we wanna do this. so this information view point will be the technical part of the.  P3: so we can basically chose between entity relationship diagram or class module. I think it might be enough to have entity relationship diagram.  P1: yeah. but we should also. we have to handed it over to some developers.  P3: but in the entity relationship diagram you can add information.  P1: yeah indeed. we have to add some additional information and the I think we can.  P3: I think the when you fill in UML class module is already too specific. not really to specific but it more could create when you have like some code.  P1: yeah. |
| 101 | 1:22:08.3 - 1:25:00.7 | P1: sequence class. this . is hard.  P3: let see I don't know exactly.  P1: did you ever use this one ?  P3: actually we use this for the assignment A we do it like class module.  P1: and if we just make connector.  P3: this is a class.  P1: if we give this strange arrow. how we do that.  P3: probably not.  (drawing)  P1: oh wait. so if we just copy this. is like snake. this is this kind like.  P3: yeah. sort of.  P2: alright so the things we have a .  P3: is this thing still . does it need a member.  P1: I don’t know.  P3: yeah. we could do that. but then we have different connector.  P1: lets just start and see where we end up. |
| 102 | 1:25:00.7 - 1:27:14.2 | P3: we have map. that basically what start.  P2: road.  P3: and intersections.  (drawing)  P3: traffic light. traffic light sensor.  P1: it separate class? okay.  P2: there's car. is it about only car.  P1: lets call it vehicle.  P2: is nothing about walk.  P2: pedestrian.  P1: ok let just . it just car. traffic simulation assignment. we don’t consider pedestrian as being traffic.  P2: alright.  P3: so they are not included.  P1: no they are not important.  P1: so this.  P3: this the traffic density in road would be lower when you have to drive away some pedestrian.  P1: yeah in some parallel. okay so what else do we have. |
| 103 | 1:27:14.2 - 1:29:20.6 | P1: yeah we also have. I think we must also include the map editor part here.  P3: could be.  P2: I don't think so. functionality.  P3: this is more about basically joining data elements.  P1:okay so we have the road the map lets focus on the map. the map has the road.  P3: one or more roads.  P1: okay this could settle.  P3: do we add the multiplicity already now. or do we connect them with the those crowd feed. or do we connect them with some like in the UML class with some multiplicity. I believe you have to get association or yeah association is the right one. |
| 104 | 1:29:20.6 - 1:30:59.2 | P1: okay. how does it work.  P2: so a map can have multiple road. and road can be in one map. like this.  P3: intersection consist of four roads.  P1: an a road can be in as many intersection as it wants. no.  P3: or do we consider can a road be like cross intersection or is road element between intersection.  P2: alright that is good thing.  P3: coz basically I think you have a road between the intersection and the intersection.  P1: yeah. then we have four roads one intersection road is between two intersection. one to two.  P3: yeah. and each map at least accommodate six intersection each map. |
| 105 | 1:30:59.2 - 1:32:34.2 | P2: yeah, but I'm questioning. because that map is connected to everything.  P3: so is it really.  P2:is about the element.  P1: true. remove road. intersection has a traffic light. I would not say it a road.  P2: this have four maybe more coz.  P3: is this traffic like is one pole or is it like traffic light just a bunch of traffic lights.  P2: I'm not only worry about that. one direction has one or more traffic lights. but also different traffic lights for going right and going left and going straight.  P1: okay so we can have as many traffic light as we want.  P2: not as many as we want but we can have three per road so twelve.  P1: oh yeah that is right so we can right left and straight through. so twelve. but we don’t have twelve, we have four to twelve. here road and vehicle.  (drawing).  P1: do you think road can have as many vehicle as it wants.  P3: so I think it should be one too. |
| 106 | 1:32:34.2 - 1:34:33.6 | P2: traffic light has or does not have traffic light sensor.  P3: but the traffic light sensor is place in the roads.  P1: so traffic light sensors connected to traffic light. it placed in the road. so like this.  P2: yeah.  P1: so a road how many traffic lights sensor can it have.  P3: one. or well it depends.  P2: three. if for right left.  P1: usually you have one far ahead also. so you have six traffic light sensor. if you have them it's just like a bike.  P2: but then it could also have more. but I think is for every lane it should. be. we called a sensor it might be different physical.  P1: so we see it as one sensor so we have three sensors. one road. this way. and traffic light also has one one sensor.  (drawing)  P1: okay. |
| 107 | 1:34:33.6 - 1:36:09.1 | P1: what else do we have.  P3: should we have notation between each relationship basically. for example. connected to place on combines to. place on.  P1: no.  P3: do we called it place on or drive on.  P1: road. place between .  P2: is the direction of reading.  P1: traffic light place on the road. vehicle drives on the road. so intersection should be directed (inaudible) the road. has a .  P3: has a or connected. so we do basically state that you have intersection and they are connected by road. right. not road are form intersection by crossing.  P2: but also give them number and in the glossary we define them.  P3: yeah . true. |
| 108 | 1:36:09.1 - 1:37:16.3 | P1: this is the all we have?.  P2: I'm thinking yeah I'm not sure.  P3: should we only have like this one.  P2: lets look through the requirement again. so the traffic light has direction. or we can maybe in there. we can try to added.  (drawing)  P2: the vehicle has the speed. |
| 109 | 1:37:16.3 - 1:39:02.9 | P3: size. size of the vehicle? yeah because if there's a like truck. it takes away more space on the road.  P1: correct. road has capacity. so we can number vehicle per minutes.  P2: not in vehicle but in space.  P3: yeah it's more like length.  P1: space capacity or just capacity.  P2: or just length is .  P3: length lanes.  P1: but we mentioned on the intersection it has only one lane. right. but then we should look at the traffic light because why can we have maximum of twelve traffic lights. if we have multiple lanes you should have multiple traffic lights right.  P2: but I was thinking more in there might three traffic lights between the brackets that goes straight but then we model them as one traffic light, because that's one . there is only.  P3: yeah. but I think you can have more. for example you can have one lane going left, one going right. two going straight.  P2: yeah. two going straight  P1: and then you have two traffic lights going straight.  P2: yeah. but I was thinking those over same functionality.  P1: okay so we just see it as one. we should mentioned it.  P2: of course  P1: okay. that's ok. the road has a length, has a lanes and the capacity I guess. because that what I imagine. |
| 110 | 1:39:02.9 - 1:40:06.9 | P2: sure. what is the capacity?.  P1: how many vehicle it can handle per minute. for different sizes. yeah but their mentioned something about the vehicle per minute.  P3: they do ? I believe there something.  P1: here you should able to changes the traffic density that entice the map on different road. enter to changes traffic density.  P2: there's a road between intersection but also there also road from which vehicle enter the map. so different kind a road.  P1: so we have to make another road.  P3: might be  P1: map road. enter map road? |
| 111 | 1:40:03.3 - 1:41:15.3 | P2: and those have one intersection.  P3: but does it state it anywhere there should be such road.  P2: it not stated in the assignment but it should be because there's really connecting road.  P1: connecting road?  P2: because in connecting road you shouldn't be able to change the traffic density. I think. otherwise the cars are created out of nothing.  P1: and this is entry road. and it is the same thing or not.  P2: that also has another attribute. the amount of cars.  P1: lanes and we don't call it capacity then or we do called capacity.  P2: density I would say |
| 112 | 1:41:15.3 - 1:42:03.5 | P1: we just don’t call capacity. density.  P3: because that like property of the road. .  P2: yeah .it's property of the entry road. but I wouldn't say it's property of connecting road.  P1: so the connecting road has the capacity.  P2:the amount of vehicle.  P3: yeah exactly because entry road has certain density which couldn't be changed.  P2: I wouldn't say leave the attribute out. in the entry road there's definite attribute that state how many car enter the map.  P1: density? that's it.  P2: density may not be the best word. we may interpreted as.  P1: yeah. |
| 113 | 1:42:03.5 - 1:43:32.5 | P1: entry vehicle. okay. how do this.  (drawing)  P1: okay. so we shouldn't . entry road. from one to n.  P3: entry road also connected to intersection right.  P1: we can do it like this.  P2: yeah. the entry road also connected to the intersection but it's only one.  P3: no it cannot.  P2: entry road has only one (inaudible).  P3: yeah, but intersection can have three entry roads.  P1: there space here.  P3: nice. |
| 114 | 1:43:32.5 - 1:45:14.2 | P1: okay. here we are. okay so . one intersection can have up to four entry roads ?  P3: three. because other wise.  P1: one to three.  P2: it can have four but.  P1: oh zero to three.  P3: four they can get the actual. yeah it could have.  P2: there's one scenario.  P3: yeah but that is really lame simulation. but than the line never change.  P2: the density changes you can still see what the effect of the.  P3: yeah that's true.  P2: I wouldn't missing any attributes (inaudible).  P1: perhaps also connected to entry road.  P3: might have something like sensitivity. might be relevant to notice amount of trucks or they just don't care about vehicle.  P2: if there's a car how many.  P3: I don't know what works like that.  P1: can it ? |
| 115 | 1:45:14.2 - 1:45:53.1 | Instructor: Hello. just remind you the two hour mark (inaudible).  P3: what time do we have ?  P2: so 15 minutes. thanks. |
| 116 | 1:45:53.1 - 1:47:15.1 | P3: and intersection,  P1: it is roads but do we already has . but it has no connecting roads. it doesn't have four connecting road anymore because we have the entry road.  P3: not every road has to have entry road. I mean not every intersection has to have entry road.  P1: so but it is zero to four also.  P3: yeah true.  P1: I think this is the map.  P3: no it's not zero.  P2: it can if there's four entry road.  P1: such a weird thing it can, but it such a weird situation. I think this is it. the map.  P3: yeah basically.  P1: so we focus fully on the map for the information view point.  P2: there are other viewpoint.  P3: this basically the static. but I don't think we have the time for something like information life cycle or flow model. |
| 117 | 1:47:15.1 - 1:49:04.9 | P1: let see if we have cover all the .  P2: desired outcomes design the interaction that student would have, design basic appearance of the program. yeah. that what we can do now in Visio maybe we can draw it. the basic structure of the code we have not design. this kind what information viewpoint say.  P3: sorry we couldn't do something like really simple GUI. basic appearance for example like an drag and drop some object. run simulation.  P1: so we have something.  P3: five view.  P1: our context view point just a bit.  P2: so lets draw a GUI. let choose the ribbon style.  P1: yeah let just choose ribbon style and on the top just make it like Visio |
| 118 | 1:49:04.9 - 1:50:31.4 | P1: it just a little bit like this.  P2: there's a file.  P1: it's too big.  P2: this basically only file.  P1: yeah there's nothing more. transcribing going to be fun.  P2: and in the left end like here. yeah just do it like that. this are the options for road , and in here is .  P3: who would prefer not graduate if you have twenty transcription of two hours.  P1: make it nice a traffic light thing like nice sensor.  P2: the sensor. how we draw it?  P1: usually sensor is like something on the road that you can.  P2: you can draw a road. |
| 119 | 1:50:31.4 - 1:51:28.5 | P3: like in the information model we basically model that you have those connecting roads and which over between intersection. but in another view I believe there's only context thingy we basically model that intersection are created when roads over lap or something like that.  P2: here ? so how which way.  P3: yeah I don't know exactly anymore but we were talking about it.  P2: yeah but I think then we have to make a choice there's also an object for intersection, because otherwise there the T intersection shouldn't be allowed.(inaudible) |
| 120 | 1:51:28.5 - 1:52:14.8 | P3: yeah maybe it could be an error if you try to run simulation.  (drawing)  P1: yeah and this is file. my English getting is worse.  P3: brain damage after two hours.  P1: it's all done. this is the red cross. |
| 121 | 1:52:14.8 - 1:53:43.7 | P3: 8 minutes.  P1: okay so lets draw something here. just make some basic.  (drawing)  P2: oh look we don’t have a traffic light.  (drawing)  P3: you have something like run simulation. |
| 122 | 1:53:43.7 - 1:55:09.9 | P2: the car has to have direction.  P3: yeah.  (drawing)  P1: okay. excellent.  P3: yeah. but a road can have like one lane this way, and at the traffic light can basically split more. which direction. |
| 123 | 1:55:09.9 - 1:56:38.5 | P1: I will now take a picture.  P3: you can also send that one.  P1: this the user interface. it should automatically updated. (inaudible).  (drawing) |
| 124 | 1:56:38.5 - 1:57:15.1 | P2: how the user can change traffic scheme. but. I'm not sure you.  P1: we don't have the time for that anymore. it a bit a shame.  P2: we will do that in the next session. the updating session.  P2: shall we stop the recording.  P3: bye.  P1: bye. |