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Transkript

Viviane Rehor

OK, then start reading and.

Tutor 2

OK. So I just have to. Yeah. OK, fine.

Viviane Rehor

Explain what you say.

Tutor 2

OK. I'm terrible at freezing information. Go ahead. Yeah, yeah. Even our own difficulty, easy or better, be able to do it then. So I just click on that first, right?

Viviane Rehor

You can skip over the scribbling your code ideas down I guess.

Tutor 2

OK. OK. OK. OK, so here you are. Here are some passion names you. Did you break your? Ohh I should have done that. Go to the next step to start. So I didn't realise I was meant to do that in the first step.

Viviane Rehor

You can do it for the next problem, because I think it's very easy for that one, but we don't do we have like a piece? Of paper and a pen.

Tutor 2

No, I didn't realise what I was meant to do in that first step. Or where I. Was meant to go, if that's what you're OK.

Commented [RV1]: Step 1: Just jumped over it at first. Would undergraduate students do the same.

Viviane Rehor

OK, if you if you should need. To do it before you. Click the next. Yeah. Yeah. OK. OK. Before, maybe for for one.

Tutor 2

Here are some things you might need for your final programme. Did you break the problem down similar pieces? So what was I meant to? Be doing again. I'll have to go back.

Viviane Rehor

Like for the.

Tutor 2

Or yeah, even or odds difficult? Easy reporter. Whether the input number is even or odd. And get the inputs and calculates yes, so I'm presuming I do I scroll here? No, that's fine. So I meant to write now.

Viviane Rehor

So like in the first step you would be meant. To like, scribble down your idea.

Tutor 2

Yeah, yeah, yeah, yeah.

Viviane Rehor

And then it's like, OK, this is our idea doesn't match and the next step is.

Tutor 2

Yeah. Yeah, yeah. Yeah. Yeah. So.

Viviane Rehor

Actually the where you do something, yeah.

Tutor 2

The block keepers, yeah. So I Step 2 finished. OK, what's it in the workspace? All the puzzle pieces that you need to solve the problem proved by some girls to try to build the solution, but combining them all OK, fantastic. This looks lovely. Really nice. OK. Oh, oh, lovely. If remainder equals that Prince. OK, so. Set reminder to. Oh, let's get this right now. So I have to swap these all around to get them to be right. So can I just say? Oops, no, I can't do that. So I get the input. Can I put that there? Can I then go scroll this one down here? Do I change all them around? I don't know if I'm doing this all right. I'm going to be putting that there, but I've got a little thing underneath it. Does that matter? And get the thing and set a reminder to reminder. Oh oh, I want to do that. Sorry, sorry, sorry. OK. Can I undo that? Get that way? No, it's blocked. Can I unblock it? I think. Yay, OK. So I get the input and then I get the remainder. And not doing very well with my own problems and I'm hoping this is going to be writing a lot to look, so I ask for the input and then I get set divided by two and if the remainder is equal, I set it to even. OK, I'm quite happy with that one. That's lovely. It's really, really nice so.

Commented [RV2]: Usability: Needs a bit of getting used to the interaction with the tiles.

Commented [RV3]: Usability: Generally likes it.

Viviane Rehor

OK.

Tutor 2

Evaluate currencies and then again it's right. Because I nearly put it in the wrong place cause I thought I. Was going to set I. Don't really decided. Yeah, I was well done. OK, fantastic. I was more. More pressure on me.

Lecturer 3

Yeah, yeah, yeah, yeah.

Tutor 2

Uh, well, that's lovely. That's really, really nice. I was going to thought that for some stupid reason, thought you did the calculation, then set the final, so I was. Thinking not thinking was thinking.

Heads without actually reading models. There, but that's. Really. And the rainfall problem? I said no. Oh, go for.

Lecturer 3

No, don't go straight for that.

Viviane Rehor

A different one, yeah, maybe try. A medium one.

Lecturer 3

Yeah, yeah. Go and go and.

Tutor 2

Reverse all of that OK guessing game. Oh, I like the guessing game. And so I should at this stage write something down.

Viviane Rehor

Yeah, this is where you scribble down your idea how to to solve the.

Tutor 2

On this page. Right. OK. OK, so the guessing game where you those I ask, I have a random number. Do I they create random number? And then I ask for an input. And then I say while. Input is not equal to. Random number one of my favourite ones and then I asked them. For more input but I. Don't. I don't know if I. Need to do anything more than that. Let's see. So walk through. Am I meant to change these around or do they stay that? Way they they say that. OK, OK, OK. Yeah, well.

Viviane Rehor

It's basically just like. Through to see the subtitles. Yeah. Yeah. Like have.

Tutor 2

OK.

Viviane Rehor

Them all visible.

Tutor 2

Set guessing number ohh meant to have. A counter. If the guess is correct. Oh, I'm meant to do to high, to low. Fantastic. OK, Step 2 so. Let's see. So the first thing I'm going to do, and I suppose it doesn't really matter, so I can set the counter to one that will be or that at the very beginning and I could do that after I guess. And so presume there's several ways that this can be answered so. Orders that can be different. And I want to find where's my random number. Oh, this is a set guest to that. I'm not very good at putting these in.

Lecturer 3

I'm just going to make a suggestion to.

Tutor 2

Yeah, tell me. So I put the.

Lecturer 3

You because it can this. But yeah, it's not come to you.

Commented [RV4]: Feedback: Immediately expected execution based feedback.

Tutor 2

Mouse here. Yeah.

Lecturer 3

Naturally, the reason for the separation but, but actually I realise that looks greyed out so but it it almost looks like don't put. It here.

Viviane Rehor

What colour would you suggest?

Lecturer 3

Colour. I don't know. I don't know. So perhaps you don't. Even need it but.

Tutor 2

Maybe you put a border, I don't know, like there. The bottom. Yeah, yeah. Next so so.

Lecturer 3

A A border and solution here.

Viviane Rehor

Yeah, needs like a headline saying on that side, like something like solution.

Lecturer 3

Just, yeah.

Tutor 2

Yeah. Or or frame around it and say solution at the top.

Lecturer 3

Yeah, just just to text you.

Tutor 2

Yeah, yeah. But I I just think that this.

Lecturer 3

Take your session here.

Tutor 2

Looks smaller than.

Lecturer 3

That she doesn't understand what happened, she says she.

Tutor 2

Yeah, because my stillness and my screen.

Viviane Rehor

Also, because like these are so long.

Tutor 2

'S falling bit funny.

Viviane Rehor

And if you would have need like the other side to be the same amount, then it's just like a lot of space that you kind of lose that then yeah. OK.

Tutor 2

Yeah. Yeah, yeah. Yeah, yeah, yeah, yeah. This is good.

Viviane Rehor

Maybe we zoom out.

Tutor 2

I'm going to get my first guess. Wherever that is. Here's my first guess. Guests to prompt. Oh, are they all sit together? Can I split them? Are they set? Say guess to that. See, I want to do the guess and then set the counter to one. I know I don't have to.

Viviane Rehor

I can set the counter to 1:00 and then do the gas. You can you can actually separate them. OK, so I think it's like if you want.

Tutor 2

OK, well.

Viviane Rehor

To separate them you always need. To take the like the. One that's lower down. So you can put that one away.

Tutor 2

OK, OK. So I want to just I know.

Viviane Rehor

From the other.

Tutor 2

I don't have. To do it this way. But I just want to do it, so I'm going to set the guests to prompt it and then I am. Well, that's nice. I can move it over. There we go about that. And then I'm going to set. The counter to one the first time so. Setting it just after our guest. If that makes any difference, and then I'm going to say while the guess is. Not equal to that. This is lovely and well, it's not equal to that set. Guess to and then you prompt it and then we add 1. To the counter and we do. A guess. Gosh, it's it's really, really nice if get. Ohh no, I don't. Yeah. Oh, I don't want to. Do that. Well, that's a. High. Repeat until. Something that's wrong.

Lecturer 3

I think I got that one completely wrong. The first time I because.

Tutor 2

Yeah, because I'm not thinking, could you repeat?

Lecturer 3

I wasn't thinking of the way she was.

Viviane Rehor

Until. Yeah. Yeah, yeah, yeah.

Lecturer 3

Going about it.

Tutor 2

Yeah. No, no, no, no. So, yeah, yeah. I do the guess at the end. Do I? No, I don't. I do that, I do the guess I'm going to count. I'm going to just do. I'm going to be so I don't. And then. Ooh, I have to think I have to think it's not the way. I normally do it. So I wanted to if the gas is equal to that. Print to the counter and go to. Do that first. I can move it. Around if it's. Not right. I'll. Yeah, of course.

Commented [RV5]: Expert strategy: Expect to see their own solution but not.

Lecturer 3

I got a few. Spotters one as well didn't know when. You were watching me, I think.

Viviane Rehor

Yeah, you got confused like I. Let's say now. Which is like your solution like in the end I want to see what your solution would. Be like your your code or.

Lecturer 3

No. In the end I thought yours was a neater one. I was thinking I would.

Tutor 2

OK, with a while loop I was going to do with the while repeat until.

Sprecher

Get some other.

Lecturer 3

Way but actually.

Sprecher

Ohh yes, well but but is this.

Lecturer 3

A while. No, it's not. It's a repeat one. Repeat. Repeat while it's saying.

Tutor 2

Oh. Oh, OK. Ah, OK. So then.

Lecturer 3

Let's not repeat until.

Tutor 2

I do that at the beginning and then I do this. I do all this. OK, so I set the counter to. While guess is not equal to that. And guess is. Not equal to number of guesses at. Where's my counter? Do I not have a number of guesses in does the counter not go into the well guess is not guesses? Where does the counter go into the?

Viviane Rehor

You mean where you you.

Tutor 2

This is not the counter that your was one of the conditions.

Viviane Rehor

I think the counter is just like, but there's a problem description again, but it's just saying in the end. OK, you you needed five tries.

Tutor 2

How many you did this so you can keep going as many times. Too. Yeah. OK, so I don't really my repeat while is not the right mental model but anyway, so I'm going to guess I'm going to add 1 to the counter and while the counter is not. That I am going to. No, I don't do that. Ohh yeah. OK. We'll have to think about this. So while the gas is not equal to that and that do guess? Can I take that out of there?

Viviane Rehor

Of the.

Tutor 2

Loop. Yes. Think yeah.

Lecturer 3

Yeah, but I don't. You can do anything you like. Is it the right thing to do?

Tutor 2

OK. Yeah, OK. That's what confused me. So if it is great is that if the guess is greater than number and guess.

Lecturer 3

It's another question.

Tutor 2

Is not equal to the number of guesses ohh number of guesses is 7, but his guess. The number I'm guess. Ohh there you've. Just said that I'm sorry I'm being. Really stupid. OK. If it's greater than. They're all that lovely. The way this opens up. I want to do this. Ohh that's really nice. So that's the whole of the do repeat. That's the whole body of it. OK. There we go there. So you set the number you asked them to count and you set the count to be one. And while the guess is not is greater than or equal to 0. We should probably the count or no, it's not. It doesn't matter and the guess is not equal to the guesses number. If the guess is greater than the number of guesses, print too high, else print too low and then I ask them to guess again and that one to the counter. Gosh, that did make me think. And then if at. The end of it, I'm going to cheque to see if. It is equal to them I print. And I evaluate. Very nervous that I've got it wrong.

Viviane Rehor

That's good.

Lecturer 3

It's it's funny that we, we. Are referring to that one as. Medium but but the two of. Us find that 111 of. The one of the trickiest ones.

Commented [RV6]: Blockly: Likes the expandability of the blocks.

Viviane Rehor

It was.

Tutor 2

I think it. Was the I had it the right way and then I saw the dude through. Me. So I thought it was a repeat until so that the condition wasn't that until the bottom, yeah.

Lecturer 3

So thoughts so far on the?

Viviane Rehor

I'm loving it.

Lecturer 3

System generally because why? Why? Why?

Tutor 2

I love it. You know, I'll tell you what I'll tell you what I love. I'll tell you there's loads of things I love. I absolutely love the idea how this expands out and I didn't. Realise that at the beginning when. I was doing it. I love the way that you can pull that apart. I just love the way that. So I thought they were set. That you know. It was this size and then everything else was going to go after it rather that. I could put the thing into it.

Commented [RV7]: Comparing to PPs: Loves the expanding.

Lecturer 3

You thought it was like a like a Parsons puzzle where, yeah. Yeah, you didn't realise it yet.

Tutor 2

But Amit, I knew it had to go in there and immediately I saw that it could evaluate and it just is. So I think that that is another.

Lecturer 3

Went in.

Tutor 2

That threw me just for the first one because I thought that that was the solid and that it wasn't the body. But as soon as I realised it could go because I was thinking I'll have to go in there and as soon as I went in and expanded it.

Viviane Rehor

OK. Yeah, yeah.

Tutor 2

And I think it's absolutely. Beautiful the way it expands.

Lecturer 3

And have you used ordinary Parsons puzzles ever?

Tutor 2

Yes. So or so, yeah.

Lecturer 3

Where you've got lines. Any any comparison?

Tutor 2

This is infinitely no, honestly, it's infinitely better it it, it is. And I love the way it's put into the different. But I'm sure. Can I? I'm just, I haven't looked at it long enough, but I'm just wondering when you put out the plan. MHM. When that is the correct plan.

Commented [RV8]: Comparing to PPs: Better user action design here.

Lecturer 3

It wasn't. No, it's not plan. It's not a plan, is it?

Tutor 2

Or the correct OK.

Viviane Rehor

Yeah. It's like kind of it's.

Tutor 2

Different things you have to do in the problem.

Viviane Rehor

Yeah, because it's kind of like coming from pattern and from the planned direction. And you can't really like.

Tutor 2

Yeah. Yeah, yeah, yeah, yeah, yeah.

Lecturer 3

Yeah. So actually you've written in the intro bit plan and what I suggested in the text I sent you this morning was actually you use the word subgoals. Yeah, and. I think you said what do you.

Tutor 2

Yeah, yeah.

Lecturer 3

Think the subtitles are.

Viviane Rehor

Yeah. Yeah, because.

Lecturer 3

How would you break? It up as it needs to be done and.

Tutor 2

Then yeah, and these are the pieces that.

Lecturer 3

And then the.

Tutor 2

Do this? Yeah. No, I think it's actually, I think.

Lecturer 3

Order doesn't matter. Yeah, yeah.

Tutor 2

I think it's. I think it's in ways. It's it's a much better way. Of doing it, but I'm. Hesitant to say it's harder than a person problem, but in a in a positive way in that person's problem, I think. I would have individually found the bits and just shoved them in the right order, whereas I had to read the block of code as to what I was doing.

Lecturer 3

OK.

Tutor 2

And I liked that. No, I really liked that that it was it was set that way as opposed to me just pulling what ones probably would have had to change them around as well with personal problem if I didn't have them. But if I had an individual line, I could fashion it. The way I once it.

Commented [RV9]: Comparing to PPs: Liked that blocky has a different language because it forces you to read. With PPs it would be more of a trial and error strategy.

Lecturer 3

So maybe this has encouraged you to learn.

Tutor 2

A bit more this made me read it more reads the way. You had blocks them. Together, read them more as a sub goal rather.

Lecturer 3

As the sun goes, a pattern, yeah.

Commented [RV10]: Comparing to PPs: This forced you to read the blocks as subgoals as opposed to lines

Tutor 2

Than as. As opposed to an individual line that. I could fashion whatever way I. So I think with the Parsons problem, you're given those individual lines just like you would be able to in a way write your own. And OK, maybe they don't have the exact same ones as you do, whereas you had already chunked them and I had to look at the chunk. So I didn't look, I didn't. I was very lazy and I didn't read the chunk of the wild do, and I just.

Lecturer 3

I think that was my problem. When I did it as well.

Tutor 2

But that's good because it forces you not to presume that you know what it is and you and then so I'm thinking, where does it go? Does it go below? Does it go up?

Commented [RV11]: Comparing to PPs: This forces you to think because you can combine pieces in more different ways.

Sprecher

Yeah, yeah.

Tutor 2

Afterwards and it forced me to actually.

Viviane Rehor

Because it can go within. And before and afterwards.

Lecturer 3

Yeah, yeah, yeah. OK. But what's interesting here is that you and I know so well, all three of us know. So we'll have to solve this problem that when it's a Parsons. Puzzle we actually we have the whole solution in our head and we're just.

Tutor 2

But I didn't.

Lecturer 3

Looking for the lion?

Tutor 2

But I didn't know how. What way she expected it so when? I first looked at it. It is bizarre. I thought. I mean, the only one I would think I would have said this would have been well.

Lecturer 3

I would reflecting it to be different.

Tutor 2

Count is less than or equal to 10 or something because the counter wasn't really.

Viviane Rehor

Oh, because yeah. This is like you can end the programme the whole programme yourself.

Tutor 2

If you just put.

Viviane Rehor

The O n, -, 1. So it's not like after ten tries the.

Tutor 2

Yeah. Yeah, yeah. Yeah, yeah, yeah, yeah. Yeah, yeah, yeah. OK. OK. Hours so I thought the counter should have been in that.

Lecturer 3

You haven't had a problem properly, have you? Yeah. And in the end, how many tries it took?

Tutor 2

Yeah, yeah, but I thought that see, you would either have a certain amount. So especially if you often we would say they can only have three tries. So then at the end you would have to check to see. If the guesses yeah.

Lecturer 3

But only three each and knows how many. Just how many it took it could.

Tutor 2

Yeah, yeah, yeah.

Lecturer 3

Be tries equals 0 not counter equals 0.

Tutor 2

Or I just thought that it might there might have.

Viviane Rehor

So that the tries are counting down and.

Tutor 2

Been a certain amount of plants.

Lecturer 3

No, no, no, no. I'm just. I'm just thinking about. The name being. Different for the variable and so the counter.

Tutor 2

Yeah, because I thought the gas, but I suppose.

Lecturer 3

Equals zero, I think we.

Tutor 2

They're reading it in anyway. You.

Viviane Rehor

Try is yeah.

Tutor 2

Want to say to no cause I think you have you got. If you want to stop the. OK, the input is going to be the guess, so you're putting in all the numbers, and if you're fed up, you just put in minus one. Yeah, yeah, yeah, yeah.

Lecturer 3

Right, that's really help post. So go on. To the next.

Tutor 2

One. Yeah. OK. Yeah. Let's see where do. I go about it.

Viviane Rehor

You can also just go back to exercises.

Tutor 2

Brilliant and. Reverse words, which one which one would? You like me to do? Well, I do the reverse for it.

Viviane Rehor

Maybe rather the find even or odd.

Tutor 2

Not on us.

Viviane Rehor

That that one it's with, it's actually find maximum and.

Tutor 2

Ohh OK. I should really read this, shouldn't I? I find it. First try try to think about. Solve the problem, maybe try it.

Viviane Rehor

Yeah, that's always the same. Yeah, you would.

Tutor 2

Find even our odd. Oh, and maximum in the list difficulty. Write a programme that reads in numbers and ends immediately when in negative numbers. Read. For all. Of the numbers. In the list it should output first. If the number is even or odd. And afterwards, whether it is the current Max OK. OK, I'll try and remember. That so let's see is. So we're going to aim putting a number. And while it is the input is greater than 0. We're first going to see if it's even or odd, so if mod 2, even else ooh. No, I have to have a maximum, don't I?

Lecturer 3

Remember, we're just going for soft goals.

Tutor 2

Oh, OK. Anyway, and then we're going to have a maximum, and then we're. Going to say if. It's also maximum we're going to. So let's see, write a programme that reads in a number and ends immediately after negative number. I've done that for all numbers in the list, it's. A list.

Viviane Rehor

But still the readings.

Tutor 2

OK, OK. It should. I'll put first if the number is even or odd and afterwards whether it is the current maximum. So we need. To keep the maximum and if it's equal to it so then we have. If at the end. OK, fantastic. Let's go. And and we're good to do here. So the first thing I want to do is I want to read in a number, so I have to find find maximum. That's great. Alternatively, even odd loops over. That's great. OK, so that's my first thing. I'm going to do that. I'm going to. Oh, no, I don't want to take it all I want to do 3. I want to. Set it to prompt at the beginning, take. The top one it's. Not it. And I'm loving this. And I said so I'm set the number and then I want this to happen before the end. So I want to first of all do if it's even and I have to put it in. I did that. I'm going to cheat to take this out. So I'm doing that right, I'm getting the number. While it's that I'm going to do that, and then I'm going to see who I have to do a maximum set maximum to zero. Set that. If number is equal, greater than or equal to maximum, set maximum. To number perfect. That should do it all. Maybe I've done that. I'm done. I'm hoping that's good to do it, I said the maximum to zero at the very beginning. Reading the number, keep repeating well. Well, NUM is. Or repeat or repeat until. Yeah, numbers less than they do that. OK, fantastic. I'm. I'm very nervous every time I. Press a button.

Viviane Rehor

Did you think anything about the like the bit that was there where you put like some of the pieces out? Can you just? Like close the thing again. There was this like.

Tutor 2

Yeah, yeah, yeah, yeah.

Viviane Rehor

Bit here which you didn't need which you obviously. Thought you wouldn't need which. You wouldn't need. Like this I didn't realise stuff was there OK.

Tutor 2

So that's just saying.

Viviane Rehor

I mean, you did everything right by ignoring. It but like just have.

Tutor 2

I didn't see it.

Viviane Rehor

You have an idea why it's there. Like she she. Just like because it's so light. She was like, OK, I just take. The bits out and put them in and just leave it there.

Tutor 2

Was that where was?

Viviane Rehor

That it's where the like all of the fine Max stuff was like there. So the the.

Tutor 2

There was another little.

Viviane Rehor

Set to 0 in the beginning and all the like comparing to the last last Max value and stuff was within the loop.

Lecturer 3

So you did it. You did. A bit of Soloway merging.

Tutor 2

I'm going to I'm going to. No, I'm gonna. Can I go back and see this because I'm going to just go.

Lecturer 3

Without even realising you've merged.

Tutor 2

And see what I just just use.

Viviane Rehor

Other was actually. Refresh button but but now you can.

Lecturer 3

The remote, yeah.

Viviane Rehor

Go back to. Like this one? And then step one finished step. Two finished and then.

Tutor 2

OK so here I did ah. So I just pulled. This out of. Here. Yeah. So I actually didn't see that.

Viviane Rehor

I mean.

Lecturer 3

Because because that's the whole fine maximum pattern.

Viviane Rehor

Yeah, because without the loop it would it. Wouldn't be a whole fine mix.

Tutor 2

Yeah, you would be able to do it.

Viviane Rehor

In the loop, yeah. Like like.

Tutor 2

But I think you maybe need to make it. Green like that? No, like.

Viviane Rehor

This you should not be using it because you would be. And not the other group. Using this loop.

Commented [RV12]: Inactive piece: was not clear, it was light, she didn't see it.

Tutor 2

But then I should pull this out. I should pull this out of the.

Lecturer 3

Which is what you did.

Viviane Rehor

Yeah. Yeah, you. You and I didn't know that.

Tutor 2

I didn't.

Viviane Rehor

Right.

Tutor 2

I didn't know that that was. I didn't see because it was light. I didn't. See it right. So I didn't purposely do that. I was unconscious. Doing it I just pulled. This, but I think if that was dark.

Lecturer 3

Were you?

Viviane Rehor

Yeah, it should be looked like you. It's not. It's not enabled, so it doesn't do anything in the whole programme. In the.

Lecturer 3

End yeah. If you Scroll down a bit. Yeah. So, so, so sorry the other way up, yeah. Well, that's, I mean, the idea is that all of these pieces here are to do with find maximum. But I must say the fact there's that big gap there, it does sort of it and I know you've got trouble getting rid of it, but. It is sort of a bit annoying in a way.

Tutor 2

I just didn't. See those? But then maybe I know the problem well enough that I.

Viviane Rehor

Wasn't thinking. Yeah, it would be more like if it wouldn't. Be there. You would. Yeah. Think like fine, Max. OK, that's not fine.

Lecturer 3

See, it wouldn't be fun. That's the.

Viviane Rehor

Max there there has to.

Tutor 2

So yes, so if you did it like that, it would be like if you did it like that and had it as and and had it as this inside. Be a loop.

Viviane Rehor

Like in green or. Yeah, but then you would think that you would need.

Tutor 2

To use it right, maybe say you don't have to. So then you because this is the find maximum solution. So if you had it as the complete find maximum solution.

Viviane Rehor

Yeah, yeah. But then you wouldn't be using all of. Your puzzle pieces for the. Final solution, right?

Tutor 2

Yeah, yeah.

Viviane Rehor

And this would make it. Like for for bigger problems maybe like. Very much harder.

Tutor 2

That could be very that could be hard, like a hard problem.

Viviane Rehor

Yeah. Because then you're like, OK, maybe I need this. Maybe I don't need this. And sometimes, yeah.

Tutor 2

Yeah, yeah. And how do they merge them?

Viviane Rehor

So this is kind of doing help like helping them, but it's still saying OK we want to have the pattern as a whole thing and not having like missing, but yeah.

Tutor 2

Yeah, yeah, yeah, yeah. Yeah. Yeah, no, you see that? Yeah.

Viviane Rehor

Yeah, I don't know. I mean, you did it totally right. By by ignoring it, it's it's what? You should do. It's just there because people would say, oh, that's not fine Max without it but.

Tutor 2

Yeah. I mean, I think. OK, I think that's really interesting to have it as the complete find, Max.

Commented [RV13]: Inactive block: Likes the idea to see it as a complete block.

Viviane Rehor

So never have like if like all the pieces under one sub goal headline should be already together, even if there's stuff between them or even if some parts of them shouldn't be. Used in the final solution.

Tutor 2

I I would. Yeah. I I didn't see it, but I think it would be nice as a hard problem to say this is how you do find Max. This is how you do odd and even, and this is how you read in until you get to the end, which I think was really really nice. UM and maybe say that you know I don't know at the beginning, just say you might, sometimes you might not need all the pieces. You only take the pieces that. You need to solve it.

Commented [RV14]: Variant: Leave out inactive pieces and explain that not all pieces might be needed. But this would be harder ...

Viviane Rehor

Yeah, yeah. Like as a harder. Version yeah, yeah.

Tutor 2

It's a much harder version. Because it's a bit like that. That person's problems because I was just doing the multiple. Thing for our and it said the harder ones is when you have. Alternative versions and that you can leave things behind, yeah. But I I didn't. I didn't notice and I'm very but that is really nice to put the total fine Max in a in a loop there and then you just take the parts that you need and then. This did throw me because I thought at first that you were meant to keep it as it was, and then I thought, well, knowing it, I knew that you can't read in and then do it without reading until the end. But it's really now that you say it all. It's really nice to say this is the complete pattern for reading in over as I've just been very lazy in my reading.

Viviane Rehor

Yeah, yeah. Maybe we should just use. The word merge. That they know they.

Tutor 2

Like yeah, or take what parts you need in order to complete it. Yeah, but I think it's really lovely to show the the total pattern of a maximum and that, you know when you're merging. Then you you won't. Need that out of it, but you still need the other parts of it. OK. Yeah. No, I I think it's excellent. I really like the fact that you're. You're reinforcing always those complete. So I presume the rainfall will be the same.

Commented [RV15]: Comparing to PPs: SPPs reinforce the idea of complete reusable patterns.

Viviane Rehor

Do do the rainfall just.

Tutor 2

Yeah, yeah, yes, yeah.

Viviane Rehor

Just, I mean, at least look at it, yeah. Right now it's like because you. Oh. Oh, sorry. You can also just put go to exercises and.

Tutor 2

OK, OK. OK. So the rightful part here. So this is advanced. No, I love it. I. Love the fact that you have the completed versions. And that, UM. So that the students can see what the completed versions should look like and should recognise them and then using them in a much. Bigger problem rather.

Commented [RV16]: Same as above

Viviane Rehor

Yeah, that's the idea.

Tutor 2

Than yeah, yeah, no, I think it's lovely. I really, really, really like it. OK, So what was I? I I kind of.

Lecturer 3

Even more, she said, and Jack quite.

Tutor 2

Yeah, I think I think it's.

Lecturer 3

Blue first.

Tutor 2

Absolutely brilliant. I mean, but this has really, really made me think and I think of it with my students when I'm doing the experiments. Because it's not the way I, you know, repeat. Do I have had? To read it more.

Lecturer 3

Than ohh yeah. Yeah, yeah, yeah. Like what you do with? Your students, yeah.

Tutor 2

Yeah. And they're looking at going well. What? Am I meant to do? Yeah. So yeah anyway. OK, so I should be reading I I do know what is the problem is but let me refresh what I'm meant to do so I'm freshly collecting. Issue with a mistake and report a negative amount for that day. Let's imagine that your list contains. Purring and gathering equipment occasionally makes mistake reports the next moment that we have to ignore this we need to we need to write a programme to calculate the total rainfall by adding up the positive numbers only and count them. So we're counting just positive numbers. So that the average print as the average at the end only print the average if there was some rainfall of wise print. No rain. Oh OK, so let's see what we're going to do. We are. Read in list. I should really do my little problems it would make. It much easier to write your. Thing first of all, without doing it this way. But anyway, and so I'm going to try and I might have to move it around. So I've got I'm going to read. In my list. I'm going to set the sum of rain to. Be 0 beforehand. This might all change, but we'll go for it. Philtre list. Oh, that's lovely. If day is greater than equal to that, so I'm going to that. And good. I'm going to go just to do that. I do this right. I'm adding that and I might add the number, so if the day is greater than zero, set the range sum to be rate sum plus that

amount. Then I have to add 1 to the count. It's the counting so I can set the count. Oh, this is nice. I like this. I like that. Have to break it up. Not doing very well, so I'm setting that in there. And this. So for each item in. Day in and the fact that it's dark green is making me now nervous that I should be using it and it shouldn't be ignored. Let's see if the day so am I doing that each day. In less set. Oh, am I doing this wrong set? OK, so all of the schools inside. Aren't doing this well. So all of this goes. So they're going to setting the those at the beginning and then I'm losing prompts the text. So they're reading in the numbers here. Set ring to prompt for text with message type in list of number. So I've set in the numbers and then I have to do this for every number. And then I have to put if the. Day is equal to that. And set it to that.

[Viviane Rehor](#)

Is it in any way knowing to you that you have? To scroll sometimes. Like, OK, yeah.

[Tutor 2](#)

No. Can you see it?

[Viviane Rehor](#)

All on one screen. Yeah. Yeah. And there is a, like, an idea to zoom out as much so you can, like, have everything, but then it. Would be like. Really small to read the.

[Tutor 2](#)

This might explain why putting my arrows in. I can't ever do it properly because I click on the calendar and has gone off and they. Won't so, but anyway if. The count is greater than one do print average so. I am going to. Do the average is outside of the four loop? If count is greater than that, print that print. I'm asking setting my initial variables, reading the my list and then each day if it's greater than that, I'm adding the the Today and I'm getting the count, the total, the total and the count, then getting the average and then I'm printing that out. I'm. Hoping it will be right because I do know this. No, no, quite. Try again. What did I do wrong?

[Viviane Rehor](#)

So two things, just like before your family. Like you can maybe like make the problem like smaller with the small error and.

[Tutor 2](#)

Yeah, yeah.

[Viviane Rehor](#)

Here you can make this one bigger because this is where you actually.

[Tutor 2](#)

There's a puzzle look in code right now.

[Viviane Rehor](#)

See the Python code.

[Tutor 2](#)

OK.

[Viviane Rehor](#)

Which might help you, I don't know. Like if if you would need it. But it's like some. Feature that's there that could be used and also when you get the message that it's like try again there is some

error information underneath. The try again bit so you can just click the try like the. Evaluate solution again. And there's some stack trace about like.

Tutor 2

On this. OK, so here and. Oh, division by zero, of course. Oh, yes, yes, yes, yes, I don't do this till in here. Oh, silly. Yes, and I know this problem so. Well, how could I have done that wrong?

Lecturer 3

The rainfall problem. Has about 7 places people trip up. So if you only tripped up. Once it's pretty good.

Tutor 2

No, I have done this. I've read. The paper offer too. And actually when I the very first day I came. I am. I I was or I'm going to try and get evaluate. That was excellent. That was really, really good. The the very first lap I did was Alex Pacheco was in it at 9:00 o'clock on UM. It was the you must have been just started your CS1CT. You just come back from your your Sebastian was 2013 and Simon Gay took over doing the. CS1P and I had it and I knew nothing about Python. Didn't realise I needed to and I was. Going through all. The exercises beforehand and he had got in one peak and he had a question four was to read in numbers in the list until he put in a -, 1 and then you were to calculate the average and his solution didn't cheque to see if the count was greater than 0.

Sprecher

In 1B.

Tutor 2

And I said to Chris that evening when I was looking through it, I said he never cheques to see if the kind of. Evening. He just divides from it and he went. Could you just shut up and? Go in and see to do. The tutorial and I mean you don't have to cause trouble on your very first day in. It was like this. So anyway I thought. OK, I better behave and I didn't know who. Simon Gay was at the time, and I went in and by mistake. They had given them the total and they had to do the average, so they just had to put the count bit or they didn't. The count and they had to give the average. So they're the president, but by mistake he'd given them the whole average. And so I I was the first lap and I was the only one on at 9:00 o'clock. So I went up and just said before the others do it, just to let you know, this complete solutions there. And he went, oh, oh, that's a shame. What? Did you do? And so I told them to put. In minus one immediately. And asked them why the computer crashed. He was like, alright.

Viviane Rehor

That's excellent and. Just like now that you see that, do you think it's in any way like the the code thing?

Tutor 2

This was hard. This was hard because I didn't. This isn't how I would see so. So count equals 0 sum rain equals zero rain. That average is that. So this is the problem. Try so if I was an absolute beginner this would be really intimidating.

Viviane Rehor

To see like, I mean it's, it's like it's collapsed in the beginning. So you know it's collapsed. Whatever.

Commented [RV17]: Usability: She showed motivation and engagement.

Tutor 2

Yeah, I just, I think it's like it, but I wonder whether because like let's try and accept this.

Lecturer 3

It's intimidating, Sir, I think.

Viviane Rehor

If the code is in. Any way useful like to have this if it's.

Tutor 2

I think.

Lecturer 3

I'm not sure if the.

Tutor 2

Code is that you, but I think you could have simpler code like. I don't wouldn't expect our CS1CT's to write this kind of code. I would have had. Count equals zero, set sum equals 0.

Commented [RV18]: Where to put? This code is not simple enough for CS1.

Viviane Rehor

Yeah, this is automatically because they like the transformation, knows that there need to be those variables, so they put them to none in the beginning in like, OK.

Tutor 2

OK.

Lecturer 3

But that is really. Confusing for the moment.

Viviane Rehor

Which is, yeah, yeah.

Tutor 2

So whether that can be that could be cut out and just start from here can't because there are some.

Viviane Rehor

Yeah, I could. Cut out it like the first line. Probably, yeah.

Tutor 2

Equals out. So just from there down would? Would be helpful. But when I saw this, at first I was and especially with the try. And accept like.

Lecturer 3

Yeah, exactly right.

Viviane Rehor

Yeah. Also the reading is, but then I like what would be the easy version of reading.

Tutor 2

From but but this this is the code that. I've written.

Lecturer 3

And when you set the translation.

Viviane Rehor

Ohh, just use it. Without the the definition of the, just like putting OK.

Tutor 2

Yeah, just if. You just do it from 11 onwards.

Lecturer 3

Do you set the translation I mean? Can you set how these times translate things?

Viviane Rehor

I think I can change the.

Lecturer 3

Translations. Pretty cool.

Commented [RV19]: Clue to override Blockly translation to Python.

Tutor 2

If you can do it from 911 down I think. That would have been more helpful. OK, yeah. But the minute I started seeing none, none try DEF I I actually switched off.

Viviane Rehor

Jack was actually using it quite a lot because sometimes he didn't get what like he didn't get what these lines were saying and so.

Tutor 2

Wasn't getting him wrong.

Viviane Rehor

I think for.

Lecturer 3

Exactly. I I think we've explained.

Viviane Rehor

The for the reverse word stuff and he used.

Lecturer 3

It more clearly. Now, yeah, yeah.

Viviane Rehor

To see ohh this. Is that in code? OK, so then I know. What it actually does?

Tutor 2

No, I think it would have been handy if I hadn't seen from 11 like I hadn't seen 10.

Lecturer 3

That reverse code one is slightly confusing the. Way you decide.

Viviane Rehor

Yeah, but now it's very easy because it's. It's just like because the sub codes are already put together and then you don't have that problem of needing to but. Can look at it maybe.

Tutor 2

Yeah. No, that's really, really good.

Viviane Rehor

If you want to.

Tutor 2

That's really, really good. Excellent. Excellent. I really like that. And I I mean that one had the four loop in there already looked like it was complete. Yeah, having. And obviously I felt absolutely here because I just felt it.

Viviane Rehor

My my sister, she she she just like had the same solution without. The average in the.

Tutor 2

Cause I just thought it was a block and there's. That idea that it is. A block because that's the solution to it. But you need to merge them into. It. Yeah. No, very good. And when I saw that, I divided. By zero. It's like OK, yeah. Yeah, brilliant, I think. I think I've done one of them. Have I?

Viviane Rehor

You can look at the reverse word stuff.

Tutor 2

OK.

Viviane Rehor

Get I think when you do. You can do evaluate now. And then it just put your go like there is a go back to.

Tutor 2

OK, yeah. OK. First words, let's go for.

Viviane Rehor

The complete and then you're back, yeah.

Tutor 2

So given a, let's make. Yeah, which makes up a sentence and generate and print out a string which consists of all words in reverse order. Each word itself reverse to give a place a space after. Each word, for example, if the word OK. OK, OK. OK, let's see how I get. On with this. Oh, I'm going to be very rude and just jump past this and see how I get on, OK? Well, I said this is my first thing at the beginning, so I'm going to set that at. The beginning to be what I'm going to do. And I've got this is the code I've.

Viviane Rehor

Got. OK, great.

Tutor 2

So this is looking. Like it should be easier. Ohh I know it's a nested 40, isn't it? So you've got all this? We've made a. List of all these and then I'm going to. Go for each word. Does that. I'm going to set this first so oh. Yeah, I'm going to do my word for word in. Can I break them? So maybe I need to put this up? To set the word. Let's see where I'm good for each word in my list, I'm going to. Do that first I. Might need to put something in. You were depend you weren't. The new words is my list of new words. So where is that new? OK. And so new words is my list of new words. And is this an empty list? No, appending text which is an empty one source of space. OK, so putting in the new words in that. 2008 for each. Letter in the word to you and.

Viviane Rehor

That is confusing. Yeah, and that's that's.

Tutor 2

I just says, Mr Reed, because I I'm. I'm thinking I'm. Missing stuff and I'm obviously not, which is is intriguing me. Yeah, like.

Viviane Rehor

I think this is an. Empty list actually like where. We this is an empty list here.

Tutor 2

OK, OK. And maybe they're dead. So, but I just it's interesting to see what's here anyway, so say few words. Yeah, but I think presume new words is a list because I'm appending stuff to it.

Viviane Rehor

Yeah, this is a confusing bit.

Tutor 2

So the fact that it's empty I presume is what I'm wanting to do, and then I'm wanting here to uh. So for each. Word I'm going to. Great word in that for letter in Word I'm.

Viviane Rehor

Going to put.

Tutor 2

That there, but I'm going to have to reverse the word the and to reverse the words and the letters, don't I so?

Viviane Rehor

Yeah, yeah.

Tutor 2

Am I doing that? Get this away. So my initial idea, but it could be totally wrong, is to. Put that in there. But that's going to. Put the first word into the list. Two letter pens. Two letter append text or am I doing good? You see, for each word in Word list for letter in Word. I want to make. So new word has to be empty. No, that's new words. New word. Do I get 2 new words? New word. I'm going to get each letter out of the word. And I'm going to. To letter append.

Viviane Rehor

This is where Jack actually looked at the Python. Code and was like well.

Tutor 2

What does it mean? I mean, you're pending that. Oh yeah. So it's plus equals rather than appending and a list, so you're putting the letter to letter. Appends the new word.

Viviane Rehor

Yeah, it's like letter. Is equal to letter plus new.

Tutor 2

The first. Word. Yeah. Yeah. So you're putting the. And then I'm only. Setting new word. I've got a I'm gonna for each word, I'm going to make a new word, and I'm going to. Go through each letter in that word and I'm going to have letter dot append. Maybe I need to put this book 1st? No, can't do that. So I always just said this a new. Word was empty and then I can. Get each letter and put it to the new word. That would work in the beginning. Then set new word. Two new words. Append new word. But I want to do the same here I want I. Want to put the the new word I want to a new word plus equals new word plus the rest of them. So I want to put it. I want to put the new word before the end of the. Is that what it's doing there? New words. Is it a list? Oh gosh. And and then I want to make an empty no. I want to make the two new words append. Text. So that's a space. OK. Set new words to be empty space.

Sprecher

In case.

Viviane Rehor

It's even doing it correctly.

Tutor 2

All correctly, the solution is correct. I'm going to do this is the way I would. Have done it, I would have said. For words in words. And then I would have had new word is an empty new is equal to new word is an empty string and then I would say for a letter. In Word. And then I would have said new word. Ooh, new word. Plus equals. No equals new letter plus. New word. OK. And then I've done that for all of that word. So that for for that for loop and then I have a list out here which is new list. And then I would have said. New list. Equals new. Right. Plus view list. That's what I would have done. I have to translate this into here.

Viviane Rehor

I think like this line is basically this line. That's this line.

Tutor 2

Yeah, OK. Yeah. OK.

Viviane Rehor

You have the link, you can still.

Tutor 2

It's it's. Yeah, I can do it at my thing and.

Viviane Rehor

Try it, yeah.

Tutor 2

I'll get back to you.

Viviane Rehor

And Quentin, just totally out of topic. Do you own a? Copy of Hitchhiker's Guide to the Galaxy.

Sprecher

Right.

Viviane Rehor

Do you use it at the moment? Would you? Because I'm going to the Shetland Islands Islands to this little cottage next week and I would like to have something to read and we'll see each other tomorrow, right? At 4:00. Yeah, so if you. Have it and if you don't need it. And if I borrow it, could you bring it?

Lecturer 3

Send send me an e-mail.

Viviane Rehor

OK.

Lecturer 3

Send me an e-mail.

Tutor 2

Have a look and see.

Viviane Rehor

If you need.

Tutor 2

We have, yeah, I'm going. To be here from 3:00 to 4:00 so. We said all four of them, but.

Viviane Rehor

I don't know where they are. I wanted to read it. While I'm OK.

Tutor 2

I want to do this since I'm gonna get right. Yeah, that's what. I want to do but I don't understand that. Excellent. I really like it. It's really good. Forced me to think.

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Transkript

Tutor 2

And they will be the same every time you use the Max you give it to them, but then they have to choose what parts of it go in. I think that's really because of those patterns. Yeah, but it also is building up those patterns. The Max is the same no matter what.

Lecturer 3

Well, it should really help with merging. It should really help them merging.

Tutor 2

We don't know what this thing is. This is the pattern. This is the pattern. We may not. Whereas when we give them a problem area and they start. Hitting it with more persons line by line. They don't see it as that chunk. I think it's brilliant. I think it's brilliant.

Lecturer 3

So, so. So we looked at the. At the Katie Cunningham paper. That Anna was to think about him. The thing is that they're. Looking at these conversational programmers who have quite domain specific.

Tutor 2

Yeah, yeah.

Lecturer 3

They want to use Python to do web scraping or something, and it's very much.

Tutor 2

I don't think there's comparison.

Lecturer 3

Sequential. No, no, no, it's it's sequential. No, no, I mean because because they definitely have the idea of the sort of sub goal names like in little comments. Just just like your sub goal names and they have the idea of pieces of code and then they but they they had a they had a different step which was you could have a sort of. Parsons bit where you have the sub goal. Names. And then you gotta put. Them in order, but then but then it's got to be. A. It's got to be it's.

Viviane Rehor

Yeah, like there is an order. And for us there's no order it's merging

Lecturer 3

Got to be a sequence. It's got to be a sequence.

Tutor 2

For the. So. So yeah, so to me that it was a fixed piece of text and they had removed any variants in it and you just slotted in like a parameter. The thing that. You wanted. You just read it but but.

Lecturer 3

But but yeah.

Tutor 2

Well, I didn't. I just read Rihanna's.

Lecturer 3

Yeah, I think, yeah. You need to read the paper. Just just.

Tutor 2

I read and I started to read the paper and then I thought ohh there's loads of other papers I want to read rather than I didn't.

Lecturer 3

Just to make sure you can argue properly.

Tutor 2

Yeah, but it looked like where's? There's a very different thing here where I. See where I. See when when you want to see if? Something is even or odd. You do this when you want to see something as Max. You do this and we learn these patterns and, but we tend to have to put them into a programme together. And students don't see them as them being the the same patterns all the

Commented [RV20]: Patterns: Enforcing reusability

Commented [RV21]: Soloway: Teaching the combining of patterns

time. They see every problem you give them as a bespoke that they've never seen anything before office. Where you're reinforcing this is what Max looks like. You don't have to think about it. This is what a Max looks like. But now how do we integrate it? Into this bigger. Problem, but you're giving them and I think. That's lovely because. It's completed. Mm-hmm. As a unit on its own, that. Would work anywhere. Yeah. No, I think that I, I really, really like it and I didn't read that from the slotting thing. I just saw that as like parameter passing. Whereas I love. That I think it's I think.

Lecturer 3

You got the book right? Yeah.

Tutor 2

You're on to something. I think it's much better than Parsons Puzzles. see you.

Lecturer 3

When we've done the study, that's good.

Commented [RV22]: Same as above.

Commented [RV23R22]: Design: Really liked it.

Commented [RV24]: Comparing to PPs: This is much better.