

1 **Rebecca and the Frame Shift(?)**

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3 [00:31:13.24] Interviewer: OK. So, so it sounds like what you're saying is, on one
4 hand, normally a pointer is like one thing. And if you're making an array, it's a
5 bunch of things. So, how could a bunch of things be the same thing as just one
6 thing?

7

8 [00:31:29.02] Rebecca: Yeah.

9

10 [00:31:29.06] Interviewer: Like that, that's why this seems like a little bit weird.
11 On the other hand,

12

13 [00:31:32.28] Rebecca: Does that code work for that option? Like, cuz, if it did,
14 that'd be very nice, cuz that's how you--that's how I would make that pointer
15 array.

16

17 [00:31:40.27] Rebecca: Cuz, it would just be an array, all the things would be
18 pointers, and then you could just say "star p of 1 {gestures right hand outward,
19 possibly indexically} points to this name, star p of 2 points to this name."

20

21 [00:31:49.10] Interviewer: Mmmhmm.

22

23 [00:31:50.05] Rebecca: But, I don't know if that's correct syntax.

24

25 [00:31:53.19] Interviewer: OK

26

27 [00:31:54.17] Rebecca: Or if it even is real syntax. {laughs}

28

29 [00:31:56.10] Interviewer: OK. But like, but like, if that's--so there are two
30 separate issues here, right?

31

32 [00:32:00.17] Rebecca: Yeah

33

34 [00:32:01.05] Interviewer: Because one of them is, as an idea /uh-huh/ I'm
35 gonna put little stars in here /OK/ and that's gonna mean that it's kind of like an
36 array /OK/ of pointers. It seems like as an idea you're comfortable with the fact
37 that, like, this should be a thing.

38

39 [00:32:13.13] Rebecca: Yeah

40

41 [00:32:14.10] Interviewer: Like, you **should** be able to make it.

42

43 [00:32:15.15] Rebecca: Yeah

44

45 [00:32:15.29] Interviewer: I don't know if **this** makes it=

46
47 [00:32:18.08] Rebecca: uh-huh. [But]
48
49 [00:32:19.07] Interviewer: [But]
50
51 [00:32:19.11] Rebecca: [There should be some way]
52
53 [00:32:19.21] Interviewer: [There should be some way to make it]
54
55 [00:32:21.26] Rebecca: Yes.
56
57 [00:32:22.17] Interviewer: OK
58
59 [00:32:23.08] Rebecca: That's what I'm thinking at least, that I /OK/ would hope
60 it would be.
61
62 [00:32:26.11] Interviewer: OK. So then, um, what if we just pretended for a
63 minute, that that, like=
64
65 [00:32:34.17] Rebecca: =That that works=
66
67 [00:32:35.00] Interviewer: =That that worked=
68
69 [00:32:35.26] Rebecca: =OK=
70
71 [00:32:36.09] Interviewer: =OK. So then, um. So then you might write like, to
72 make an array of, actually what would we call this? This is=
73
74 [00:32:47.24] Rebecca: =array of pointers, I guess=
75
76 [00:32:48.28] Interviewer: =OK. {under breath} pointers. It'd be, well. So. The--
77 the one we had was like {writing} int, star p, um, it would be some number, um,
78 and I guess that'd be it in order to just declare /Yes/ that right? OK. And then
79 you're saying, how would you like access an element of it?
80
81 [00:33:12.02] Rebecca: Uh, well, what I was think--like if I wanted to like, save it
82 or whatever, /Yeah/ I could make a while loop, {drags hand across the table in
83 what's presumably a scanning motion} scan in the--scan in the data from the
84 album, /OK/ uh, which is, I can write it [if you want]
85
86 [00:33:23.10] Interviewer: Sure, go ahead
87
88 [00:33:25.14] Rebecca: Um, yeah so, it was=
89
90 [00:33:27.12] Interviewer: Oh, sorry, just have to

91
92 [00:33:28.15] Interviewer: Oh
93
94 [00:33:28.27] Interviewer: It's /Oh, OK/ one of those annoying ticks, but it works
95 best cause of the camera if, ah, /Ah, OK/ if that's pointing away from your hand
96
97 [00:33:32.04] Rebecca: OK
98
99 [00:33:32.23] Interviewer: That's fine
100
101 [00:33:33.25] Rebecca: Um, there was album, and then, so there was, uh,
102 percent d, and percent s, and then give those names, just, I'll just call it number,
103 and title. /Mmmhmm/ And so, at least, my--until it does not equal EOF, and then
104 my thinking at least, is you should be able to, um, say that
105
106 [00:34:00.12] Rebecca: "star p of i" /mmhmm/ equals, uh, the title, and then you
107 just do i++, so then it'll move to the next one {makes looping gesture with left
108 hand} /OK/ and you just keep saving each of the pointers {left hand makes
109 horizontal chops in the air, like rungs down a ladder}
110
111 [00:34:19.01] Rebecca: in the array {makes final horizontal chop} to a title
112 /Mmmhmm/ {right hand makes pinching motion, creating a line between left and
113 right hands that parallels the table-top and points to her right}
114
115 [00:34:21.00] Rebecca: And {right hand makes a large loop back} you just
116 increment by 1 {right hand makes a cycloid forward, like counting dots on a line}
117 until you reach the end of file.
118
119 [00:34:24.13] Interviewer: OK=
120
121 [00:34:24.16] Rebecca: =Like *that* {palms open, facing chest, pointing at
122 herself with both hands} would make sense to me.
123
124 [00:34:26.16] Interviewer: So then, like, what would go in p of one would be the
125 first title we read in /Yes/, uh, would, when the while loop runs again, does it get
126 a fresh [line from that]
127
128 [00:34:35.16] Rebecca: Yeah, because uh, what the while loop does is it reads in
129 the line /Mmmhmm/ and then it'll go back down to the next thing /OK/ then read
130 in the line, until it reaches the End of File.
131
132 [00:34:47.28] Interviewer: So as you step through this loop /mmhmm/ {points to
133 i++} i keeps going up by one=
134
135 [00:34:52.11] Rebecca: Yes.

136

137 [00:34:53.10] Interviewer: Uh=

138

139 [00:34:54.03] Rebecca: =And the lines keep going down, so, that way, the first
140 line is going to be, uh, element zero /OK/ the second one'll be element one=

141

142 [00:35:02.18] Interviewer: Mmmhmm. I mean, that seems like pretty sensible to
143 me. /Yeah/ that, that if, if our initial idea is right /Uh-huh/ and that you should be
144 able to have an array of pointers, then if it works like an array you should /be
145 able to/ be able to stick stuff /Yeah/ somehow in it. Um. OK.

146

147 [00:35:19.00] Interviewer: So. What would. I mean it seems like this gives us at
148 least some, some idea of where you might go /Yeah/ if you were to, if you were
149 to do the next bit of the assignment. How do you feel about it?

150

151 [00:35:33.24] Rebecca: I feel good that I actually have somewhat of a possible
152 idea. Like, I was completely lost before this, /OK/ so.

153

154 [00:35:41.24] Interviewer: Do you feel like you came up with this on your own?

155

156 [00:35:43.26] Rebecca: I mean I definitely think you helped, cuz you told me,
157 like, uh, to just pretend that the first part's right, what would you do? And I think
158 that helped me, cuz right, I just kept getting stuck on the fact that I couldn't get
159 past the one part. /OK/ What do I do on the next part?

160

161 [00:35:58.15] Interviewer: Right. /So/ But, but I mean, but we don't, and I'll be
162 completely honest, I don't know if this is right. /Yeah. Yeah/ So, in other words, I
163 did tell you to pretend, but we're both still not sure that that's right.

164

165 [00:36:10.05] Interviewer: So, it sounds like part of what helped you was just, if
166 we made a choice to say "well, this might work, so if it does work" =what would
167 be the next thing=

168

169 [00:36:16.27] Rebecca: =what would you do=