

APPENDIX B

Transcript of Test Episode for Empirical Investigation

00:12 0012 R: I'll drive the tool, but I'll follow whatever thoughts you wanted to do. I'll do the set up.

00:21 0021 PM: Yes, are you going to record that as well?

00:24 0024 BA: Yes, I'm going to record the set up.

00: 26 0026 PM: OK

00:27 0027 R: So let's do the setup first and then we'll see...

00:31 0031 PM: Are we recording now?

00:35 0035 R: I'll just check. Yes, we're off. Rocking and rolling... OK, so first thing I'm going to do is set the underlying working file path. This is not important to you, guys, but it is necessary for the tool to read and write files if need be. I'm going to start recording a new design episode and the name of the new design episode is going to be... any name?

01:13 0073 PM: Lee Nick 1, it the 30th of the 7th, 08.

00:24 0084 R: Brilliant. So that's the name of the episode. We'll set up the problem that we going to go through i.e. Graduate Development Program. Like that, lovely.

Preferences - we need to set up global preferences, both for search and isolation. We'll go for Global, Medium – yes, we'll pick those. And we'll pick Short for Local – they seem to work quite nicely, thank you very much. And Isolation preferences - 'Yes' so we're all set to go. We'll just have a look at the current episode, that tells us that we're underway, what the name of the episode is, etc. etc. So, let's get the global search underway first. We'll initialise the population, click on search and there we go... The agent has stopped it which is fine... We're not particularly interested in that one, I assume we can get rid of that one gentlemen?

02:28 0148 PM: Yup.

02:29 0149 R: Yeah, we're not very interested in that one. OK, so now we're interested in the local searches. We can see that we've got zones 3, 5, 6, 7 and 8. Let's have a look and see if we can find some interesting ones. Zone 4, what have we got? 12 designs, 7 uniques...

02:51 0171 PM: Yeah, take 4, 5, 6 and perhaps 7? Yeah, let's take 7 as well and then I think we'll leave it at that.

02:59 0179 R: Ok, Yes?

03:04 0184 PM: Yeah. Seems a reasonable number of classes for the scope of what we're trying to do.

03:09 0189 R: So that's give you a good 50 to play with. Plenty there to be getting on with. OK, so we'll start the local searches. And away they go. Each one of those runs in its own thread, there we are. So which one do you want to start on first?

03:40 0120 PM: I think, let's have a look at 5.

03:46 0226 R: Want to start with 5? OK, we've got 20 designs in there.

03:50 0230 PM & BA: Oooohhhh....

04:00 0240 R: OK, so you've got all these ones with the coupling values. In theory, the lower the coupling, the better the design.

04:08 0248 PM: OK, so can we go and have a look at 6 instead? The zone 6 instead?

04:15 0255 R: Yep.

04:17 0257 PM: Let's have a look and see how many that's got. That's got 9 designs. What have we got in there? What's the coupling values in there?

04:24 0264 R: Probably a bit higher coz the average is .484 rather than .476 so slightly higher perhaps.

04:33 0273 PR: Right, let's pick one. Let's try design 6 from zone 5. See what that's about.

04:44 0288 R: That's got greys, that's got yellow.

04:52 0292 PR: Is there anything remotely interesting... It's interesting how the yellow one has got elements of "Student" in there.

05:06 0306 R: Hmmmm.

05:09 0309 PR: Elements of the "Student" in there. Hmmmm... the red class is just a mixed bag of everything.

05:21 0321 R: Yeah.

05:24 0324 BA: Top right one in the grey box seems to have Primary Award Details, but obviously forename doesn't belong in that.

05:42 0342 PM: It's like there's an award class that's appeared in there, and subsets of the person class have appeared in there. But not strong enough to be really useful somehow.

06:01 0361 BA: Is it worth just adding....?

06:02 0362 PM: Well, put it in the portfolio, if we call it "Award class"

06:13 0373 R: Yes?

06:15 0375 BA: Yup. For star rating, give it a 2. Just put possible Award class and also possible first Student class.

06:41 0401 BA: That's probably enough for now. So if we add that?

06:45 0405 R: OK, done?

06:47 0407 PM: done.

06:49 0409 BA: If we look at that, that's quite high coupling compared to the average. Do we want to open up zone 4? Again, the coupling's down to 0.3.

07:07 0427 PM: Yeah, let's have a look in there then.

07:14 0434 BA: OK, let's see, the coupling's low at 0.291.

07:22 0442 PM: Let's have a look at design 5 then. Pick one at random and have a look. I would say that's a real mixed bag.

07:46 0466 R: The fitness of that line means that these two are a bit confused.

07:57 0477 PM: I would say chuck that one away – right?

08:00 0480 BA: For now, yeah.

08:02 0482 PM: throw away.

08:04 0484 BA: Let's try design 6?

08:05 0485 PM: Yeah, let's have a look.

08:16 0495 PM: It's similar, very similar. The only thing is there's some elements in the bottom left hand one of "Student" again, only thing is there's elements of that, that student element make you think – there you go. There's User Id Details again, Date of Birth, Address Details, Person Details, Contact Details, Award Registrations, which potentially are... so there's an element of person class in there. So, you know, with potentially some of the things we discussed earlier on, you might want to, so, I don't know, put this in the portfolio with a possible Student class or whatever...with a cohesion of 6.8 or whatever it was.

09:09 0549 R: so that's added

09:10 0550 PM: I'll give that a 2 star rating.

09:11 0551 R: that's a 2 star rating and a possible student class.

09:23 0563 PM: So that's fine. Again, nothing else on there is interesting. Let's go... Let's just notch that up a bit so where there's a slightly higher coupling... If we take design 7 then as well...

09:35 0575 R: Yep.

09:52 0592 PM: Well, Again I would say it's similar... again I would say there's the potential beginnings of a student class. On that top right yellow one. Very similar to the last one.

10:08 0608 BA: the lines are a lot thicker in this one, so

10:11 0611 PM: Yeah

10:12 0612 BA: So I think more confused than the previous one.

10:15 0615 PM: Yeah. Throw it away?

10:17 0617 BA: Yes.

10:18 0618 PM: yes, throw it away, gone.

10:20 0620 PM: OK, let's.... let's have a look at that one with the other one behind it with a coupling of 0.42 just out of interest... I think group 4 has come up with a number of very similar group of designs. Group 4 in general has got a number of classes which look a bit like "student" class, only with a very strong coupling to...

11:00 0660 BA: It's interesting as well that it's always where the blue one is, it's always been together rule1 or rule4 and Primary Target, has always been together, so...

11:12 0672 PM: Right, OK, I think there's not... But as a general rule, the zone 4 has tried to come up with a student class.

11:22 0682 R: Yes.

11:26 0686 PM: So, we'll go with that. Zone 4 has produced a particular kind of student class.

11:35 0695 R: OK.

11:37 0697 PM: So, I think, Zone 4, I'm not interested in it anymore because although there's a potential student class, I think we need to see more stuff. Can we go and have a look at number 7 now?

11:50 0710 R: Of course.

11:59 0719 PM: Let's pick design 5 again, on the basis that...

12:16 0236 BA: It's one up from the bottom. Scroll down. See what that one is.

12:39 0759 BA: that's too dispersed through the classes.

12:44 0764 PM: Yeah, I would say... let's have a look at something else.

12:48 0768 R: OK

12:49 0769 BA: Can we have another look at zone 7? It may be that that's up to... Let's have a look at design 10. Again, that's very, very similar.

13:17 0797 PM: There's no obvious class in there.

13:25 0805 BA: No.

13:29 0809 PM: Let's just have a look at one more in zone 7. See what's happened. That one, design 3. See if it's not as similar. Yeah, it is similar.

13:48 0828 BA: I think should we could just add it to the portfolio so that we could just record...

13:53 0833 PM: Chuck it in!

13:55 0835 BA: Say... all designs in zone 7...

13:58 0838 PM: ...look like this. Say all designs in zone 7 look like this! Too dispersed. So give it a really low star rating. Of 1. That'll do.

14:24 0864 BA: So unlikely to yield optimum classes. Yes, yes.

14:45 0885 R: There we go. All right?

14:47 0887 BA/PM: Yes.

14:49 0889 PM: So Zone 7's gone. Good, right, so now we're back to zones 6 and 5.

14:57 0897 R: Let's have a quick look at the portfolio; let's have a look at what we've got so far. Zone 7 is too dispersed.

15:14 0914 PM: Yes, have you got the log?

15:16 0916 R: Yes.

15:19 0919 PM: Yeah, that's it.

15:26 0926 R: Ha, ha! It doesn't really size the scroll bar!

15:41 0941 PM: All-right, OK, that's fine.

15:50 0950 BA: Shall we look at 6 to see if we can...?

15:54 0954 PM: I think, yeah, what we'll do is start to go through them is a little more detail. So we'll start with design 1, and 6, let's have a look.

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16:23 0983 R: I don't know, is that the beginnings of an award class?

16:32 0992 PM: It could well be, actually. Or at least, defining information that you might want on the report, I suppose.

16:39 0999 R: It hints that there is something going on around the concept of a report?

16:45 1005 PM: Yes. And then the other one with a cohesion of 9, next to it, again is looking very like a student class, to me. So what I'd want to do at this stage is kind of have identified three or four classes, and say, they, just to me, they looked to me just a bit like a student class, and let the system know that they were student classes.

17:13 1033 R: Yes.

17:14 1034 PM: In my mind, but, coz I couldn't tell you, I couldn't remember at the moment what all the attributes were on the other classes.

17:21 1041 R: That's right.

17:22 1042 PM: So then an agent might look at them and say that there were these similarities and bundle them together and come back and say, well actually, what about this? Does this look better? I've taken the things that were common across all of those, and then exclude them from other searches, yeah?

17:39 1059 BA: Certainly add it to the portfolio.

17:43 1063 PM: So. There are a number of possible classes in here.

17:54 1074 R: This is zone 6.

17:57 1077 PM: We can make a note of the zone number. Zone 6, design 1.

18:13 1093 R: That's zone 1 design 6.

18:16 1096 PM: It's the other way around.

18:18 1098 R: Oh, Ha, Ha! Sorry, zone 6 design 1.

18:26 1106 PM: Number of possible classes. And then I'll just say in the notes, I would give it a 2 or a 3, a 3, and then say, possible student class, possible report class.

18:45 1125 R: Put a question mark on that because...

18:54 1134 PM: Yeah. OK. Let's have a look at the next one. It's just, if we could through the ones in design 6.

19:08 1148 R: Yeah, we've got that lump again, haven't we?

19:14 1154 PM: Now then, that looks a bit more interesting, as well.

19:19 1159 R: That's a strong candidate for report, isn't it?

19:23 1163 BA: These four methods were all in the other one as well. That one...

19:42 1182 PM: That's interesting. No strong rule classes in this set actually, interestingly enough. So, I would almost make the same comment against that particular design, as we did previously. So 6.2...

20:00 1200 BA: Again, could consider doing that one, or would open the log up and record it in there. Well, if we go back to the portfolio, instead of having two portfolios saying the same thing, if we can go back to the portfolio...

20:19 1219 PM: Yeah, that's true.

20:23 1223 BA: and just amend that one. Could we amend it to say that...?

20:30 1230 R: Sadly, no. Unfortunately, the functionality does not let you do that.

20:34 1234 BA: OK, fine, so we need to add...

20:37 1237 R: Sorry, it's one shot, at this stage.

20:39 1239 PM: OK, so we'll do...

20:42 1242 R: It was that one, wasn't it?

20:44 1244 PM: Yeah, so I would say...

20:48 1248 R: that's Z6, D2

20:51 1251 PM: Is it D2? Again, a possible mix of classes.

21:01 1261 R: Star rating?

21:02 1262 PM: I'd give it a 3 again and I'd say "Same as z6.2"

21:15 1275 R: OK

21:17 1277 PM: Have a look at number 3.

21:29 1289 BA: That bottom one is looking quite studenty. There's a few things missing like student number, and things like...

21:41 1301 R: Still got a report class.

21:43 1303 BA: Hmmm. Very Similar.

21:45 1305 PM: The only thing about the report class is that if you actually have a report class appearing like that, then because it's an output, you know, it's always going to be drawing fundamental attributes away from some of the other classes.

22:00 1320 R: Yeah.

22:01 1321 PM: So it's, you know, it's almost like a problem class amongst us, because it's pulling...

22:10 1330 R: Yes, if I can chip in my ten pennorth, this coupling seems to be quite prevalent insofar as because there are a lot of attributes, it seems to me that there's a lot of – there's a genuine couple between those concepts. So if this is student and this is report, they seem to be tightly coupled. The notion of a report is very closely linked to the notion of a student.

22:46 1366 PM: Yeah, absolutely.

22:50 1370 R: Just reading that line, looking at it like that, the fact that there's this big kinda couple here would make me think that this concept is very closely mapped to or is coupled to this one. And that might be something interesting to know about the problem domain.

23:12 1392 PM: Mmmm, yeah, true.

23:16 1396 R: So on here... chip in if I've got this wrong, guys. But if this was getting close to the student class, and this was getting close to the report, this is the more confused one, isn't it? Because it's got rules in it, and it's got GDP in it.

23:36 1416 PM: Yeah.

23:40 1420 BA: Yeah.

23:47 1427 PM: But a very strong person class. So this is, again, you know, there is a strong student class element coming out in this zone, as well. The rules... where it was possible, we've seen other places where the rules have come up, but we haven't seen it here on this particular iteration, which is interesting.

24:14 1454 R: hmmm, yes. OK, so that one's in the portfolio, what shall we call this?

24:18 1458 PM: Again...

24:19 1459 R: z6 d3, isn't it?

24:20 1460 PM: very similar to z6 d1 and z6 d2.

24:38 1478 BA: This one has the student class.

24:57 1497 R: Star rating?

24:59 1499 PM: give it a 3.

25:01 1501 R: Anything else you'd like to say about that one?

25:05 1505 BA: Well, we should record the comment you made about where we've got a student class and a report class, then there's the linkages with the other class. That's thrown confusion in that design.

25:32 1532 R: Yeah.

25:34 1534 PM: OK. Let's just keep going through them, see what this one's about.

25:49 1549 R: Trying to get them so the lines don't overlap. Not always be possible.

26:05 1565 PM: Similar to that thing again.

26:08 1568 R: No sign of the rules, at all?

26:10 1570 PM: No, they've all kinda been sucked in the bigger class. Can we just? Rather than just add it to the portfolio, can we just quickly flick through the other 2 or 3 that there are? See whether we're looking at stuff that's come up or all very similar. Coz I think that has – that has come up with a lot of similar designs. Close that one again?

26:41 1601 R: Yeah. The zone seems to be quite similar, doesn't it?

26:48 1608 PM: And again, the next one? See if we can find the needle in the haystack?

27:06 1628 R: I mean, all it takes is one attribute to be moved from one class to another, and the search engine picks it up as its own class, you know, as a unique class.

27:16 1636 PM: Absolutely.

27:17 1637 R: And given that there are 34 attributes, it's very difficult to remember what the groupings are.

27:25 1645 PM: Hmmm. Let's go into the next one. OK, so it's produced some very similar designs.

27:29 1649 R: Wouldn't it be nice if at this point, there was some kind of free text logging arrangement, where you could note down your own insights as you're going along?

27:51 1671 PM: Hmm. Yes, we'll just make a note of that.

27:56 1676 BA: Yes, the whole of zone 6, sort of, gave a couple of good classes that you think are the starting blocks. The rest of the classes aren't really delivering what you'd expect, so you could just make those comments. So that not to discredit all of zone 6, but to take the bits you need, and only look at certain ones, certain classes. So again, if we could have a look at zone 5, and start at the top again, and just look...

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28:48 1728 R: there's a monster class?

28:50 1730 PM: Let's, sort of, have a little flick through to see whether or not there's... And the next one?

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29: 10 1750 R: OK

29:12 1752 PM: Will it let you have more than one open at the same time at the moment? No, OK. So a few leaps and possibly... the next one?

29:35 1775 R: OK

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29:44 1784 PM: Again, I mean, just as a superficial look, it's produced a large class, a highly cohesive class, which... Now, there's an element, in that bottom yellow one, of the beginnings of a registration type class, or some kind of PrimaryAward class like that. It's got code, primary target, primary award in there, award registrations, there's something in there that's come from that. And, a student class, in the top yellow one.

30:36 1836 R: Yes.

30:37 1837 PM: There's also, not quite, there's also the beginnings of a potential rule class, that we see with the grey.

30:48 1848 R: Oh, yes.

30:49 1849 PM: So that a bit more of an interesting diagram, because we got the beginnings of a student class, the possibility of a rule class. It's just that... If you could drag a couple of attributes around, it might shift the diagram completely.

31:04 1864 R: It might alter the coupling – the thickness of the coupling.

31:06 1866 PM: Yeah, the thickness of the coupling quite a lot, then.... OK... So I would save that one. That one is a bit more interesting.

31:15 1875 R: So that's... which one are we one?

31:20 1880 PM: z5 d5.

31:22 1882 R: I don't know if we've picked up on that – have we seen that? Beginnings of student, and what was the other one?

31:36 1896 PM: There's like an award one, and also, the beginnings of a rule class. I would say, you know, if I were giving a star rating, overall, I would give it a 3, and I would say that the student class is a 4. Yeah, the rule class is a 2, and the award class is in the middle.

32:08 1928 R: a 3?

32:09 1929 PM: a 3, yeah.

32:19 1939 R: The star rating is good, isn't it?

32:20 1940 PM: Yeah, I think so.

32:26 1946 R: OK?

32:27 1947 PM: Yeah.

32:28 1948 R: next one, design 6. Let me know if it get's boring at any stage.

32:39 1949 PM: That's all right.

32:43 1953 R: as before really. The zones seem to concentrate around the same areas, don't they?

32:55 1973 PM: On this particular run. What I would be quite interested to do if possible, would be to run it again, so see what happens with those zones.

33:02 1982 R: Yeah. So if I close that, well, I don't want to do this, but in the portfolio so far, zone too dispersed, zone 5 too similar, zone 6 not very similar,

33:27 2007 PM: So overall, I think zone 5 is the most interesting zone.

33:31 2010 R: Yeah. On that particular run?

33:37 2017 PM: Yeah. Shall we have a quick peek? Or have we seen enough of that one now?

33:43 2023 BA: I'm not sure changing...

33:44 2024 PM: I'd like to see what it comes up with, with another run...

33:53 2033 R: OK

33:54 2034 PM: You all-right with that, BA?

33:58 2058 BA: Yeah.

33:59 2039 R: So what zones are we after? We liked 5 and 6 last time didn't we?

34:03 2043 PM: Yeah. 4 and 7 were definitely...

34:06 2046 R: OK, 5 and 6, let's run those again. Oh, damn. Never mind.

34:14 2054 PM: Just run the lot again. That's all-right. It's probably useful to do the same set again.

34:24 2064 R: shall we have a look at 5? Take the first one?

34:29 2069 PM: Yes.

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34:45 2085 R: We could almost merge those, couldn't we? We could put those under one.

34:49 2089 PM: Yes. So it's produced, yes, I've made a little note... the possibility of being able to drag attributes and methods from one class to another. Because that could potentially alter the diagram significantly in terms of the coupling. Yes. Could we have quick look at one from 4, one from 5, one from 6, one from 7?

35:18 2118 R: 4, 5, 6, 7.

35: 25 2125 PM: Let's just have a look, just pick a random one.

35:32 2132 BA: Number 10.

35:44 2144 R: It's not really very useful, is it?

35:46 2146 PM: Monster class in the middle. OK, so, close that, just pick another one from that group. Similar in terms of what it's done, and another one? Let's just pick three. Yes, yes, so very similar patterns within that group. OK, now let's go to 7, discrete zone 7, and see again if it's done something similar. So, again, quite dispersed, as it was in the last run. But what has it done? Let's have a look and see what it's done.

36:28 2188 R: Coupling's high.

36:30 2190 PM: Yeah, high coupling.

36:45 2205 R: It's not very good at all, is it? Is that the beginnings of GDP? If you blended that in with that?

36:48 2208 PM: From a method point of view, but not an attribute.

36:51 2211 R: I just think that's too incoherent. There's loads of lines everywhere.

36:56 2216 PM: Everything's joined, I agree. So that...

37:00 2220 R: The coupling's just too high.

37:01 2221 PM: The coupling's too high.

37:02 2222 R: Anything over 0.5 and it starts getting a bit...

37:05 2225 BA: Is there anything in zone 7 that is lower coupling? Or is it all....

37:11 2231 R: It's all over 0.6.

37:14 2234 PM: I think we can... too dispersed... Let's go to zone 5.

37:22 2242 R: D'you know? I feel it's really important to capture these insights as we go along.

37:27 2247 PM: Hmmm, yeah. On the zones?

37:30 2250 BA: like a notepad?

37:32 2252 R: Well, just like a notey thing, so that you can fire it off to the log.

37:37 2257 PM: Yeah, absolutely. I've got that, I'm sure I've got that one written down.

37:40 2260 R: Cool. OK, 5?

37:41 2261 BA: Picking at random, so who knows?

37:49 2269 PM: Can we, very quickly, just do 3? So that one, pick another one... Got a similar feel to it.

38:05 2285 R: Maybe we need to do the global search again.

38:08 2288 PM: I think so. That one's done so good stuff like Student.

36:25 2305 BA: It has identified the Student class, I think.

36:28 2308 R: OK, so we'll have that one. So this was zone 5 design 3? How many stars?

36:46 2326 PM: I think it's got a 3 for Student, well, attribution wise, maybe it's a 2.

38:57 2337 BA: It depends on the star rating. It depends on whether the rating is for the overall design. So the star rating is then poor. And then but that one individual class has a high star rating.

39:13 2353 PM: I've noted that here as well, you need to be able to give each class a rating, and potentially, because we're ignoring them a little bit, the coupling rating as well. The coupling, potentially with that, you kind of have to take... you'd potentially need to be able to say what the classes were that had the coupling between.

39:32 2372 R: Right.

39:33 2373 PM: And rate it. I'd rather than an overall. Or as well as, because you might say the overall coupling on this was good, because you came up with a design that meant something. I'd give the student class, maybe, a 3. Again, but it's good on attribution, but the methods, I'd give a 1. OK, so let's bung that in.

40:07 2407 R: Cool. D'you want any more?

40:10 2410 PM: Yeah, just pick another one.

40:13 2413 R: Let's just have a look.

40:18 2418 PM: Similar thing, again.

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40:35 2435 R: Similar?

40:36 2436 PM: Similar again. I think it would be good if we could run through another global search. And then look at those zones again to see if there's anything... what d'you think?

40:48 2448 BA: Yeah.

40:51 2451 R: Right, before we do that, what I'm going to do, I think the portfolio will remain intact. Just in case it falls over, I'm going to view the current episode and highlight all of this. I'm sorry about this, but I'm going to pop it into Word. There we go. I don't know whether to watch the screen or... Where's Word? It's big up there and small down here. That's just my own... right... OK, that's closed. So, in this case, now, what we'll now do, is, go back and initialise the population again, and run the global search. Ohh, we didn't get very far that time. OK, close those down, what have we got here? Pick all of them? D'you want to pick all of them?

42:22 2542 PM: I'd like to... Yeah, let's have a look at all of them. Maybe our initial thoughts on the number of final classes was just an underestimate. It may be 5, 6 and 7. If only we'd gone to 8, or 9, it would have, you know, maybe...

43:11 2591 BA: Maybe there's enough interest to have a look at 3, because that's...

43:14 2594 R: OK

43:15 2595 BA: 3 and 4, because 4's dropped off.

43:20 2600 R: hmmm... You've got a 0.107 there.

43:23 2603 PM: Let's have a look.

43:24 2604 R: I bet you you'll get three good classes.

43:27 2607 PM: Ha, ha!

43:29 2609 R: Oh, no, you get one monster.

43:31 2611 PM: One big class! So let's have a look at what's happened. Are they all similar? Is it one monster class and two tiddlers in every case?

43:48 2628 R: I'm afraid so. Not very useful.

43:56 2636 BA: What about...

43:58 2638 R: Those three?

44:00 2640 PM: Yeah, those three.

44:01 2641 BA: So we'll pick the first one.

44:08 2648 R: Still a monster and two other classes.

44:13 2653 BA: Oh, at last.

44:14 2654 R: Starting to develop itself?

44:21 2662 PM: So you'd want to be able to drag the method from the ApplyRules down

44:28 2668 BA: Again, just saving the rule class.

44:34 2674 PM: So that's 4.1, or z4 d1.

44:41 2681 R: Beginnings of rule class?

44:42 2682 PM: Yes.

44:51 2691 R: How many stars?

44:53 2693 BA: Again, 2 probably. Rule class.

45:03 2703 PM: Again, good attributes, poor on methods actually. I think it might be worth looking through some other...

45:12 2712 R: OK

45:15 2715 PM: See whether it's got... Ah-ha, that's a better one.

45:22 2722 R: That's wacked the cohesion up.

45:27 2727 PM: Yes, well, that's an even stronger...

45:30 2730 BM: We need to save that one really.

45:31 2731 PM: This is d2; z4, d2. How many stars?

45:53 2753 BA: 2.

46:05 2765 PM: Now, we just want to have a look through the other ones to see whether the rule class has been stronger.

46:13 2773 R: OK, yes, it has, hasn't it? The zones, they seem to be quite close in terms of distance, don't they? In terms of a match, the zones seem to be around the same area, although the coupling's going up and down. No, they're not that far away from each other. I wish it would auto-layout.

46:45 2805 PM: I'll make a note of that.

46:49 2809 R: I did try to do that originally, but it's a right pain.

47:01 2821 PM: So, what's interesting is that the zones have equated to classes in this exercise. You know, we've said, for each zone, the diagrams have almost consistently produced a strong "something" class, I think. Whether as in this case it's the Rule class, in the last examples, zone 6 and zone 4 produced some quite strong student type classes. Interesting. Interesting.

47:41 2861 R: Log my observation.

47:43 2863 PM: Yes.

47:45 2865 R: Log the observation.

47:46 2866 PM: Well, there's no doubt that zone 4 has produced a rule class, and that one's also produced a student class.

47:58 2878 R: Has it?

47:59 2879 PM: Yes.

48:00 2880 R: Go back to 6. Oops...

48:09 2889 PM: Beginnings? No, not that good, not tight enough, not good enough.

48:18 2898 R: Oops... What was that? 7. In zone 4?

PAUSE – visual inspection

48:34 2914 PM: Still not looking so sweet, is it?

48:38 2918 R: Yes, it's not so good that time. The rules have moved around.

48:46 2926 PM: No, that's not the sort of thing...

PAUSE – visual inspection

49:04 2944 R: I'm just belting through. If you guys want to stop...

49:07 2947 PM: No, no, just interested to see if it's..., the observation is that there's a consistent rule has been developed by that zone. I'm sorry, it's a consistent class.

49:20 2960 R: Yeah, it is. It's in all the ones we've seen so far. Or something approximating to it. The attributes and the methods are important and getting the mix between the two.

PAUSE – visual inspection

49:46 2986 BA: Still got that one big monster.

49:48 2988 PM: Yes, that's the other thing that's been a bit... Yes, I would say has been consistent across the zones that we've seen. I mean, they all got relatively small numbers of classes. We're looking at 3 and 4?

50:00 3000 R: Yes.

50:01 3001 PM: So whilst it's picked out a class which is a good potential candidate class for a final solution, because there are so few classes – I would have anticipated they would have been more classes. You're going to get bigger... a monster class, aren't you? Because where would you next, I suppose? Because you've run the simulation over more now, can we have a look outside of... if we go up to look at something like, you know, let's go up to 10. 10's got a very high coupling. No, it doesn't look that interesting, does it? The coupling's high, OK. But again, going back to, you know, this ability to store away what looks like a candidate class and then use the "find me" button, if you could find that kind of class within a...

51:01 3061 R: All right, so let's say at the moment, "find me...". Where's he gone?

51:28 3088 PM: So we might find somewhere that, you know, with those... on the attributes, I think, you've got more chance of a hit where you have rule1, rule2 and rule3.

51:48 3108 R: Shall I save word away? How do I do that... ooh, that'll do. Pushed it to the limits... Can I close a few of these down?

52:28 3148 PM: Yes

52:30 3150 R: You can always bring them up again. Ooh, here we go then. No. It would have been good to use the "Find me...", wouldn't it?

53:00 3180 PM: Yes.

53:08 3188 R: That's out of the way, what's happening about that? Ooh, out of memory error. Ha ha! that would explain it then. We've probably put so many away. Sorry gentlemen, I think it's gone down a very big hole.

53:49 3229 PM: OK.

54:00 3240 R: D'you want to stop there?

54:07 3247 PM: I think we better had.

54:09 3249 R: OK then, thank you very much for your time gentlemen. It's a shame we can't go back a have a look at the portfolio, isn't it?

54:15 3255 PM: Yeah, I think some interesting things have come out though. The way that particular zones are clustering around particular classes, I think, is interesting. And it would be worth exploring why, I think, that is. What's causing it to do that.

54:33 3273 R: Overall, do you think it's useful to use the tool?

54:35 3275 PM: Yes, absolutely.

54:38 3278 BA: I think if you've got a problem, and you don't know where you're going to go with it, it's certainly good to kick you off and getting you thinking in the right direction, because that's generated classes that you might not have thought about. It's started to put some structure and shape to the problem which you then may not use one of the outputs word for word, or attribute for attribute, but you might then, say, dragging and dropping, just go away and draw it yourself, but based on what's shown.

55:23 3323 R: OK. Then I'll say thank you very much and stop the transcript.