

## Q&A Session for Programming Languages Lecture 5

Session Number: 1209889489

Date: 2020-9-18

Starting time: 14:23

---

ANON - 14:34

Q: I have yet to be able to login to submittty. Will we have the same deadline as last quiz (4pm EST or something like that)?

Priority: N/A

Konstantin Kuzmin - 14:35

A: Try refreshing the page. Yes, the deadline is 4:19:59 pm EDT.

---

ANON - 14:48

Q: when are we returning here for lecture?

Priority: N/A

Ana L. Milanova - 14:48

A: 3pm

---

ANON - 14:48

Q: what does it mean "associated with nearest unmatched 'then'"

Priority: N/A

Konstantin Kuzmin - 14:51

A: We can't answer questions, related to quiz contents while the quiz is open. Try to do your best to interpret the question.

---

ANON - 14:55

Q: Can we submit multiple times?

Priority: N/A

Ana L. Milanova - 14:56

A: Yes

---

ANON - 14:57

Q: Can we have the HW deadline extended to midnight? I (along with many others, I think) saw the 1:59 deadline as 11:59 and assumed midnight.

Priority: N/A

---

ANON - 14:59

Q: I finished the Quiz and was hoping that after the Quiz was finished if this Question could be answered. I was wondering if to determine LL(1) if you always had to draw the Parsing Table, if the Grammar is

determined to not be Ambiguous.

Priority: N/A

Ana L. Milanova – 15:00

A: We can answer this question next time since submission is open until the end of class

---

ANON – 15:00

Q: there is no test case 14?

Priority: N/A

Konstantin Kuzmin – 15:22

A: It is test 12 in this quiz. Just look for the test name to be "Check Honor Pledge".

---

ANON – 15:01

Q: This isn't a quiz-related question, but how can we confirm our attendance via mediasite?

Priority: N/A

Ana L. Milanova – 15:02

A: You can check the gradeable for the week. And if you think we have missed your attendance, let us know.

---

ANON – 15:01

Q: When will the grade for quizzes be released?

Priority: N/A

Ana L. Milanova – 15:03

A: We release the grades by following class or earlier.

Ana L. Milanova – 15:03

A: Quiz 1 is already out.

---

ANON – 15:02

Q: Im getting no audio

Priority: N/A

Steven Haussmann – 15:03

A: Webex may be playing the audio on the wrong device.

Assuming you're on Windows, you can disable devices until it picks the right one -- I don't see a way to control the streamed video output device

---

ANON – 15:02

Q: Do you need to download it on our laptop or will a home computer work?

Priority: N/A

Ana L. Milanova – 15:05

A: Prolog I'm assuming. You can download anywhere you would like. Submission of homework is autograded in Submittity.

---

ANON – 15:03

Q: Afternoon all. Are we allowed to ask questions about the quiz?

Priority: N/A

Steven Haussmann – 15:04

A: You can submit the quiz up until the end of class, so no

---

ANON – 15:05

Q: Should we get the stable version of Prolog or is another version recommended

Priority: N/A

Steven Haussmann – 15:05

A: That will suffice. I don't think we're using any bleeding-edge features!

Ana L. Milanova – 15:05

A: Stable version.

---

ANON – 15:11

Q: What does it mean by "match"?

Priority: N/A

Ana L. Milanova – 15:11

A: They are the same term (essentially).

---

ANON – 15:14

Q: Could we go back to the last few seconds of the first video for a little bit? Just want to copy your writing.

Priority: N/A

Konstantin Kuzmin – 15:24

A: Done.

---

ANON – 15:14

Q: Can you give a brief synopsis of logic programming and functional programming?

Priority: N/A

Steven Haussmann – 15:16

A: Logical programming sets out a series of statements and tries to find a way to satisfy all of them. Functional programming mostly revolves around the composition and application of pure (side-effect-free) functions

---

ANON – 15:18

Q: SWI Prolog is just the terminal?

Priority: N/A

Steven Haussmann – 15:20

A: SWI-Prolog is an implementation of Prolog. If you're talking about the executable, it depends on your platform, but yes, one of the things included is a REPL (i.e. an interactive prompt).

---

ANON - 15:23

Q: Why does it say "name: Not found" on Check Honor Pledge entry?

Priority: N/A

Konstantin Kuzmin - 15:27

A: Submittity didn't find your name in the list of students. Please send us an email, so that I could look into that problem and correct it. Make sure that you put your first name last name under the Honor Pledge.

---

ANON - 15:28

Q: So what would !likes(al, pie) Output then?

Priority: N/A

Ana L. Milanova - 15:29

A: Prolog is a subset of first order logic. One of the restrictions is that it does not allow for negative assertions. We cannot assert things like !likes(al, pie).

Ana L. Milanova - 15:31

A: We can ask a query !likes(al,pie), and Prolog will answer true. It has failed to assert likes(al,pie), which makes the negation true. More on negation in prolog later.

Steven Haussmann - 15:32

A: Prolog does have the notion of "not provable", so you can \*query\* for something like that: \+likes(al, pie). gives "true" as a result. However, as Milanova said, you cannot assert a negative. There are no negative facts.

---

ANON - 15:29

Q: so if prolog cannot assert a theorem as true, it defaults to false? eg, not Likes(pie, al), would be true, because it cannot assert that al likes pie

Priority: N/A

Ana L. Milanova - 15:29

A: Correct.

---

ANON - 15:32

Q: So Variables Values can be specified after the Query? And if no Value is specified for that Variable then Prolog searches the Entire Database for all Potential Values?

Priority: N/A

Ana L. Milanova - 15:33

A: Yes, that's correct.

---

ANON - 15:35

Q: for "?-likes(eve, W), person(W), food(V)" why aren't "W=eve, V=pie" and "W=eve, V=apple" answers too?

Priority: N/A

Ana L. Milanova - 15:37

A: Because in our database of facts only tom is a person, i.e., we don't have person(eve).

---

ANON - 15:38

Q: is it just me one having trouble with audio?

Priority: N/A

---

ANON - 15:38

Q: ok no need to answer that. i see i am not. I will stream on mediasite.

Priority: N/A

Steven Haussmann - 15:39

A: See my answer from around the top of the hour above -- webex is probably sending the audio to the wrong place. If so, disabling all devices other than the one you want the audio to come out on should correct it

Steven Haussmann - 15:40

A: the streamed content ignores your output settings in webex

---

ANON - 15:39

Q: Strangely enough I have audio when the lecture is not being streamed.

Priority: N/A

---

ANON - 15:41

Q: If we press ; and there are no more answers, then Prolog will just terminate the query?

Priority: N/A

Steven Haussmann - 15:42

A: It will terminate once it fails to find any more satisfying assignment for your variables.

---

ANON - 15:43

Q: What does the period mean in prolog?

Priority: N/A

Steven Haussmann - 15:44

A: The period ends a statement.

---

ANON - 15:45

Q: So does that mean that when you enter a query, Prolog has automatically done one extra search?

Priority: N/A

Ana L. Milanova - 15:47

A: When Prolog sees the query, it starts the search.

Steven Haussmann - 15:49

A: If you're referring to how it automatically ends the search if there's aren't more answers, rather than requiring you to enter ; to make it check for more, I do believe that Prolog recognizes there can't be more answers and stops immediately.

---

ANON - 15:50

Q: Sorry, so does the query terminate automatically when there's no more answers? Or you have to type ; one more time?

Priority: N/A

Ana L. Milanova - 15:52

A: Depends on the query and database of facts. Sometimes, Prolog is able to see there is nowhere more to search; in this case it will terminate with a full stop. Other times, it will look like there is more to search; in this case prolog will not terminate

Ana L. Milanova - 15:52

A: the query. And if the user presses ;, it will terminate then with just . or false.

---

ANON - 15:53

Q: In the Example with snowy(troy), it was not specified by rainy(troy), cold(troy) so if we then queried ? - rainy(C) would this return C = troy as well although not explicitly stated?

Priority: N/A

Ana L. Milanova - 15:53

A: No.

Ana L. Milanova - 15:55

A: Prolog proved snowy(troy) due to the second clause, snowy(troy). But we don't have a fact rainy(troy), or a deductive rule that can help us prove rainy(troy).

---

ANON - 15:58

Q: could you specify something like rainy(x) :- snowy(x) to make that work?

Priority: N/A

Ana L. Milanova - 15:58

A: Yes, that should work.

Ana L. Milanova - 15:58

A: rainy(X) :- snowy(X).

Ana L. Milanova - 15:59

A: X should be upper case, to denote a variable.

---

ANON - 15:59

Q: Are the steps for installing and running prolog the same for windows/ubuntu? Also, which platform do you recommend?

Priority: N/A

Steven Haussmann - 15:59

A: I've had no problems on Windows or Linux, so I would suggest using whatever platform you're already familiar with.

---

ANON - 15:59

Q: im watching on media site? am I just behind or.... because I have like seattle and rochester, not troy. Are they just different values? can someone tell me what timestamp you all are currently on? I can't see the video on webex due to linux difficulties

Priority: N/A

Steven Haussmann - 16:00

A: at the time I answered this, we're at 14:00 or so into the third part

Ana L. Milanova - 16:02

A: On slide 28 I changed the snowy example slightly, adding snowy(troy) as a fact at the end. That's what we were discussing. The snowy.pl example we are usually referring to, does not include snowy(troy).

---

ANON - 16:02

Q: So when X is initially bound to seattle, simultaneously C is also bound to that value since they are unified? And when we backtrack, X, the same occurs for C?

Priority: N/A

Ana L. Milanova - 16:03

A: Yes.

---

ANON - 16:07

Q: can variables unify with functors?

Priority: N/A

Ana L. Milanova - 16:08

A: Yes, variables can unify with structures.

---

ANON - 16:12

Q: Why is ajit for art not also output?

Priority: N/A

Ana L. Milanova - 16:16

A: Because the query is classmates(jane,Y), and having Y=ajit // Z=cs would require that takes(jane,art) is asserted as true.

---

ANON - 16:12

Q: When will the hw be posted?

Priority: N/A

---

ANON - 16:14

Q: Oh never mind I understand, for the Above Question.

Priority: N/A

---

ANON - 16:15

Q: so when I enter a query into prolog, eg Food(X), it returns only the first satisfying instance - should this return all satisfying instances?

Priority: N/A

Steven Haussmann - 16:16

A: it will return one set of satisfying assignments, then wait for your input. Hit ; to see another set of answers, or hit . to stop

---

ANON - 16:16

Q: If given a question about the bindings for C (like in slide 35), is it only asking for the results of the goal?

Priority: N/A

Ana L. Milanova - 16:18

A: Yes, the question is asking for the possible bindings for C. And that's what Prolog outputs. Prolog does not output the values of Z that lead to that particular binding for C, we just did this as exercise.

---

ANON - 16:17

Q: Would we go over the Search Tree for the Final Exercise next class?

Priority: N/A

Ana L. Milanova - 16:18

A: We can do that.

---

ANON - 16:17

Q: Why is C = jane returned twice again? I might have missed this in the video.

Priority: N/A

Ana L. Milanova - 16:19

A: We'll go over the tree in the beginning of next class. But basically, because there are two different values of Z, Z = his, and Z=art that make classmates(jane,jane) true.

Ana L. Milanova - 16:19

A: Sorry, Z=his and Z=cs.

---



