

CS 603: Programming Languages

Lecture 30

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Overview

- More about Prolog
- Using SWI-Prolog
- Using Horn Clauses as a semantics

More Prolog

- “if” statements
 - $pred \rightarrow predT ; predF$
 - if $pred$ is satisfied, try to satisfy $predT$, otherwise try to satisfy $predF$
- Managing the fact base
 - `assert(pred)` – adds $pred$ to fact base
 - `retractall(pred)` – removes all matching preds from fact base.

Using SWI-Prolog

- Run from “Start” menu
- Put facts and rules in a file, like MP3.pl
- Load file by doing:
 - ['MP3.pl'].
- Use up arrow to retrieve previous commands
- Do queries, ending with “.”
- Add “trace” to do tracing
 - “Enter” key steps, “n” stops tracing

Using Prolog to Implement Languages

- See Handout