

IIT Guwahati, Dept of CSE, CS331: Prog. Lang Lab

Assignment V: Basic Prolog Programming

Soft deadline: 11.55 PM IST, 2nd April 2021 (Hard deadline of MS team: submission will not allowed after 11.55PM 3rd April 2021)

- Write a Prolog predicate to find square root of positive number: `sqaureroot (X, result, accuracy)`, where $|\text{result} * \text{result} - X| < \text{accuracy}$. Initialize result with $X/2$ and iterate to find the square root.
- Write a Prolog predicate `sublist(X,Y)` that is true if list X is a sublist of list Y. A sublist is defined as the original list, in the same order, but in which some elements may have been removed. For instance (user input is in red):

?- `sublist([a,b],[a,e,b,d,s,e])`.

Yes

?- `sublist([a,b],[a,e,e,f])`.

No

?- `sublist([a,b],[b,a])`.

No

?- `sublist([], [a,e,e,f])`.

Yes

?- `sublist([a], [])`.

No