



**2CSDE85 - Artificial Intelligence**

**Practical 7**

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**Aim: Write a PROLOG program on lists. (1) Reversing a list. (2) Finding the position of a given element in the list from the beginning and from the end**

**Code:**

```
PR5 x PR6 x Program x +
1 rev(L) :- find_rev(L, [], L2), write(L2), nl.
2
3 find_rev([], L1, L1).
4
5 find_rev([X|Tail], L1, L2) :- find_rev(Tail, [X|L1], L2).
6
7 find_beg(X, [X|_], 1) :- !.
8 find_beg(X, [_|Tail], N) :- find_beg(X, Tail, NN), N is NN+1.
9 find_end(X, List, N) :- find_rev(List, [], List2),
10 find_beg(X, List2, N).
```

**Output:**

```
rev([6,3,9,2,0,4]).
[4, 0, 2, 9, 3, 6]
true
find_beg(2,[6,3,9,2,0,4],X).
X = 4
find_beg(11,[6,3,9,2,0,4,11,5],X).
X = 7
find_end(4,[6,3,9,2,0,4,11,5],X).
X = 3
```