

12 Dec 2021

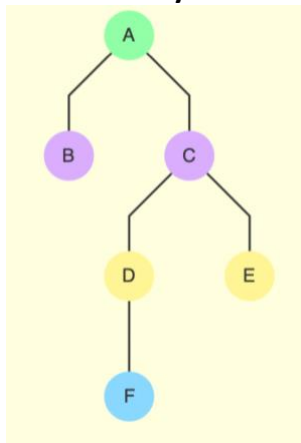
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### Prolog Code:

```
branch(a,b).
branch(a,c).
branch(c,d).
branch(c,e).
branch(d,f).
```

```
path(X,X).
path(X,Y):-branch(X,Z),path(Z,Y).
```

### For the Binary Tree:



### Output:

The screenshot shows the SWISH Prolog IDE interface. On the left, the program code is displayed:

```

1 branch(a,b).
2 branch(a,c).
3 branch(c,d).
4 branch(c,e).
5 branch(d,f).
6
7 path(X,X).
8 path(X,Y):-branch(X,Z),path(Z,Y).
```

On the right, the execution results are shown for several queries:

- `path(a,f)` returns `true`.
- `path(a,e)` returns `true`.
- `path(b,f)` returns `false`.
- `path(c,b)` returns `false`.

At the bottom right, there is a section for a new query: `?- path(c,b)`.