

1. Write a Prolog program for the forward chaining using following facts

```
rainy(chennai).  
rainy(coimbatore).  
rainy (ooty).  
cold(ooty).
```

Program :

```
% Facts
```

```
rainy(chennai).  
rainy(coimbatore).  
rainy(ooty).  
cold(ooty).
```

```
% Rules for forward chaining
```

```
rainy_city(City) :- rainy(City).  
cold_city(City) :- cold(City).
```

```
% Forward chaining rule
```

```
go_outside(City) :-  
    rainy_city(City),  
    write('It is rainy in '), write(City), write(' Better stay indoors. '), nl.
```

```
go_outside(City) :-  
    cold_city(City),
```

```
write('It is cold in '), write(City), write('. Better dress warmly. '), nl.
```

% Example Usage

```
% ?- go_outside(chennai).
```

% This query will check if it is rainy or cold in Chennai and provide appropriate advice.

```
% ?- go_outside(ooty).
```

% This query will check if it is rainy or cold in Ooty and provide appropriate advice.

Output :

```
?- go_outside(chennai).
```

% Output: It is rainy in chennai. Better stay indoors.

```
?- go_outside(ooty).
```

% Output: It is cold in ooty. Better dress warmly.

```
?- go_outside(coimbatore).
```

% Output: (No output as there are no rules for coimbatore in the provided facts)