

## Program 26

### Fruit and its colour using backtracking

#### AIM :

To implement a Prolog Program for fruit and its colour using Backtracking.

#### PROGRAM :

```
fruit(apple, red).
```

```
fruit(apple, green).
```

```
fruit(banana, yellow).
```

```
fruit(orange, orange).
```

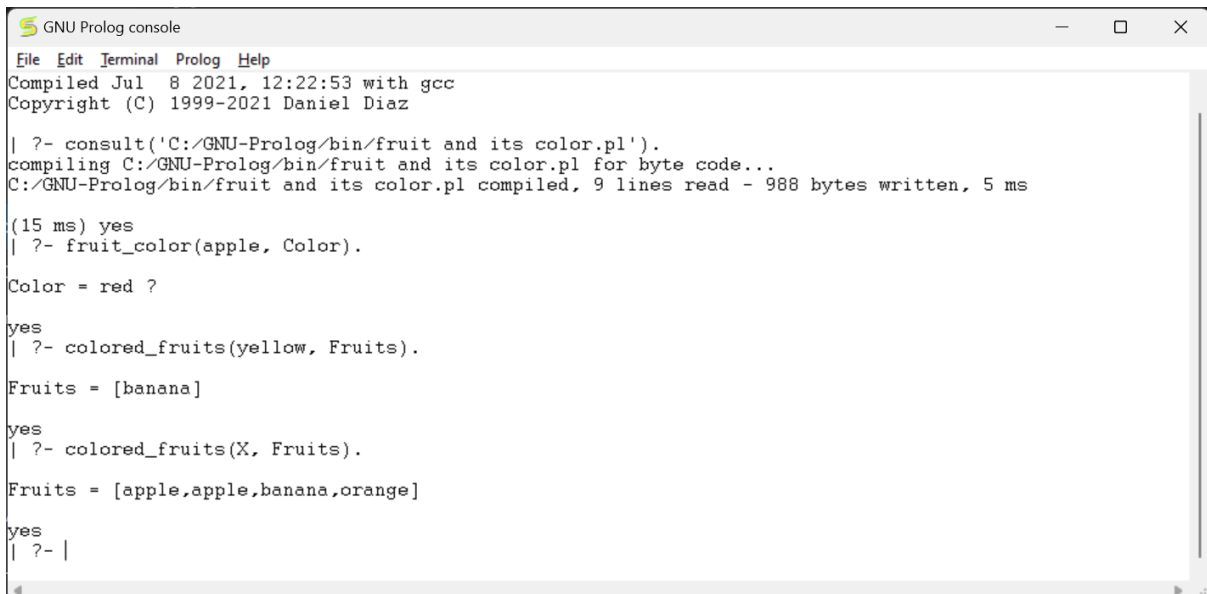
```
fruit_color(Fruit, Color) :-
```

```
    fruit(Fruit, Color).
```

```
colored_fruits(Color, Fruits) :-
```

```
    findall(Fruit, (fruit(Fruit, Color)), Fruits).
```

#### OUTPUT:



```
GNU Prolog console
File Edit Terminal Prolog Help
Compiled Jul  8 2021, 12:22:53 with gcc
Copyright (C) 1999-2021 Daniel Diaz

| ?- consult('C:/GNU-Prolog/bin/fruit and its color.pl').
compiling C:/GNU-Prolog/bin/fruit and its color.pl for byte code...
C:/GNU-Prolog/bin/fruit and its color.pl compiled, 9 lines read - 988 bytes written, 5 ms

(15 ms) yes
| ?- fruit_color(apple, Color).

Color = red ?

yes
| ?- colored_fruits(yellow, Fruits).

Fruits = [banana]

yes
| ?- colored_fruits(X, Fruits).

Fruits = [apple,apple,banana,orange]

yes
| ?- |
```

#### RESULT:

The Program has successfully been executed.