

Artificial Intelligence

Assignment-2

Name:- Vanisha Singh

Roll No. :- 2020347

Explanation:- Basically, I developed a road route searching system from one city to other. The system takes the required inputs, such as the start city and destination city, and then allows the user to choose which search(depth-first search or best-first search) they want to implement and, based on that, prints the required path between the cities.

Working:-

1. The code flow begins with creating the knowledge base containing information of all the roads existing between cities and their distances.
2. Then it takes the input of the source and destination city and the search they want to implement.
3. According to the search asked, the algorithm finds the path and prints it.

Language:- Prolog

Below are attached the screenshot of the working code:-

Screenshot:-

```
?- ['/Users/vanishasingh/desktop/coding/prolog/Assignment-2.pl'].
Warning: /Users/vanishasingh/desktop/coding/prolog/Assignment-2.pl:1875:
Warning: Singleton variables: [J]
true.

?- start.
HELLO!
This is an Road Route Searching System
Start City:-
|: cochin.

Destination City:-
|: delhi.

Do you want to run a Depth First Search(dfs) or Best First Search:-
|: dfs.

We are doing a depth first search

cochin
agartala
ahmedabad
agra
bangalore
allahabad
bhubaneswar
amritsar
bombay
asansol
calcutta
baroda
chandigarh
bhopal
delhi
true .
```

```
?- ['/Users/vanishasingh/desktop/coding/prolog/Assignment-2.pl'].
Warning: /Users/vanishasingh/desktop/coding/prolog/Assignment-2.pl:1875:
Warning: Singleton variables: [J]
true.
```

```
?- start.
HELLO!
This is an Road Route Searching System
Start City:-
|: agra.
```

```
Destination City:-
|: delhi.
```

```
Do you want to run a Depth First Search(dfs) or Best First Search:-
|: dfs.
```

```
We are doing a depth first search
```

```
agra
ahmedabad
agartala
bangalore
allahabad
bhubaneswar
amritsar
bombay
asansol
calcutta
baroda
chandigarh
bhopal
cochin
calicut
delhi
true .
```

```
?- ['/Users/vanishasingh/desktop/coding/prolog/Assignment-2.pl'].
Warning: /Users/vanishasingh/desktop/coding/prolog/Assignment-2.pl:1875:
Warning: Singleton variables: [J]
true.
```

```
?- start.
HELLO!
This is an Road Route Searching System
Start City:-
|: bhopal.
```

```
Destination City:-
|: delhi.
```

```
Do you want to run a Depth First Search(dfs) or Best First Search:-
|: dfs.
```

```
We are doing a depth first search
```

```
bhopal
ahmedabad
agartala
bangalore
agra
bhubaneshwar
allahabad
bombay
amritsar
calcutta
asansol
chandigarh
baroda
cochin
calicut
delhi
true .
```

```
?-
```