

Problem Statement:

Implement the code using C language for the problem statement.

A commuter wants to know the travel details for the specification given below:

Source Location:

Destination location:

Speed of vehicle (Km/Hr) :

Key landmarks:

The task assigned for me is:

Calculate time of travel and retrieve the distance, time and direction details using given landmarks.

Description of task:

The values are predefined to the variables(distance,landmarks) as array and time travel is calculated by function taking distance and speed as output.The formula is $\text{Time} = \text{Distance}/\text{Speed}$.Then finally output displayed by calling respective choice of user via Array index location.

Program:

```
#include<stdio.h>
```

```
#include<string.h>
```

```
#include <stdlib.h>
```

```
int timetaken(int speed1, int distance1)
```

```

{

int time;

time = distance1 / speed1;

return time;

};

int main()

{

int choice, speed, distance[5]={2210,1422,1485,838},duration;

char sourceloc[5][70]={"Chennai"," Delhi","Hyderabad","Banglore"},destination[5][70] = {"delhi",
"Mumbai", "Kolkata", "Pune"},landmarks[5][100] = {"Nagpur, Agra", "Surat, Jaipur", "Vizag, Khargpur",
"Belgaum, Satara"};

while (1)

{

printf("\n SELECT YOUR CHOICE");

printf("\n 0 - Chennai to delhi");

printf("\n 1 - Delhi to Mumbai");

printf("\n 2 - Hyderabad to Kolkata");

printf("\n 3 - Banglore to Pune ");

printf("\n 4 - Exit ");

scanf("%d", &choice);

if(choice == 4)

{

printf("Exiting... \n");

```

```
        return 0;

    }

    else if(choice>4 || choice <0)

    {

        printf("Choose again");

        continue;

    }

    printf("Enter the speed of vehicle");

    scanf("%d", &speed);

    duration=timetaken(speed,distance[choice]);

    printf("\n Source Location: %s",sourceloc[choice]);

    printf("\n Destination location: %s",destination[choice]);

    printf("\n Key landmarks via : %s",landmarks[choice]);

    printf("\n Speed of vehicle (Km/Hr) :%d",speed);

    printf("\n Distance : %d Km",distance[choice]);

    printf("\n Time : %d Hrs ",duration);

    printf("\n");

    };

    return 0;

}
```

Output:

SELECT YOUR CHOICE

0 - Chennai to delhi

1 - Delhi to Mumbai

2 - Hyderabad to Kolkata

3 - Banglore to Pune

4 - Exit 0

Enter the speed of vehicle 100

Source Location: Chennai

Destination location: delhi

Key landmarks via : Nagpur, Agra

Speed of vehicle (Km/Hr) :100

Distance : 2210 Km

Time : 22 Hrs

SELECT YOUR CHOICE

0 - Chennai to delhi

1 - Delhi to Mumbai

2 - Hyderabad to Kolkata

3 - Banglore to Pune

4 - Exit 1

Enter the speed of vehicle 100

Source Location: Delhi

Destination location: Mumbai

Key landmarks via : Surat, Jaipur

Speed of vehicle (Km/Hr) :100

Distance : 1422 Km

Time : 14 Hrs

SELECT YOUR CHOICE

0 - Chennai to delhi

1 - Delhi to Mumbai

2 - Hyderabad to Kolkata

3 - Banglore to Pune

4 - Exit 2

Enter the speed of vehicle100

Source Location: Hyderabad

Destination location: Kolkata

Key landmarks via : Vizag, Khargpur

Speed of vehicle (Km/Hr) :100

Distance : 1485 Km

Time : 14 Hrs

SELECT YOUR CHOICE

0 - Chennai to delhi

1 - Delhi to Mumbai

2 - Hyderabad to Kolkata

3 - Banglore to Pune

4 - Exit 3

Enter the speed of vehicle100

Source Location: Banglore

Destination location: Pune

Key landmarks via : Belgaum, Satara

Speed of vehicle (Km/Hr) :100

Distance : 838 Km

Time : 8 Hrs

SELECT YOUR CHOICE

0 - Chennai to delhi

1 - Delhi to Mumbai

2 - Hyderabad to Kolkata

3 - Banglore to Pune

4 - Exit

