

OEP

BRTS route Design, considering traffic, traffic on road, and benefits.

```
#include<stdio.h>
#include<conio.h>
edge[4][10], sol[10], n, i;
void swap(int);
int check(int, int);
int main()
{
    int j, x, y, dist, traff;
    clrscr();
    printf(" Enter Number of Stops(Less than 20) : ");
    scanf("%d",&n);
    for(i=0; i<n; i++)
    {
        printf(" Enter Stops : ");
        scanf("%d %d",&x,&y);
        printf(" Enter Distance(Less than 10): ");
        scanf("%d",&dist);
        printf(" Enter Traffic Level(1. Low, 2. Normal, 3. High) : ");
        scanf("%d",&traff);
        edge[0][i]=x;
        edge[1][i]=y;
        edge[2][i]=dist/traff;
    }
    for(i=0;i<n-1;i++)          //for sorting in ascending order
        for(j=0;j<n-1;j++)
            if(edge[2][j]>edge[2][j+1])
```

```

        swap(j);

    for(i=0; i<n; i++)
    {
        x=edge[0][i];
        y=edge[1][i];
        check(x,y);
    }

    printf("\n\n Routes Considered : \n");

    for(i=0; i<n; i++)
        if(edge[3][i]==1)
            printf(" Edge %d %d, Cost : %d\n",edge[0][i],edge[1][i],edge[2][i]);

    getch();

    return 0;
}

void swap(int j)
{
    int t1, t2, t3;
    t1=edge[0][j];
    t2=edge[1][j];
    t3=edge[2][j];
    edge[0][j]=edge[0][j+1];
    edge[1][j]=edge[1][j+1];
    edge[2][j]=edge[2][j+1];
    edge[0][j+1]=t1;
    edge[1][j+1]=t2;
    edge[2][j+1]=t3;
}

int check(int x, int y)
{

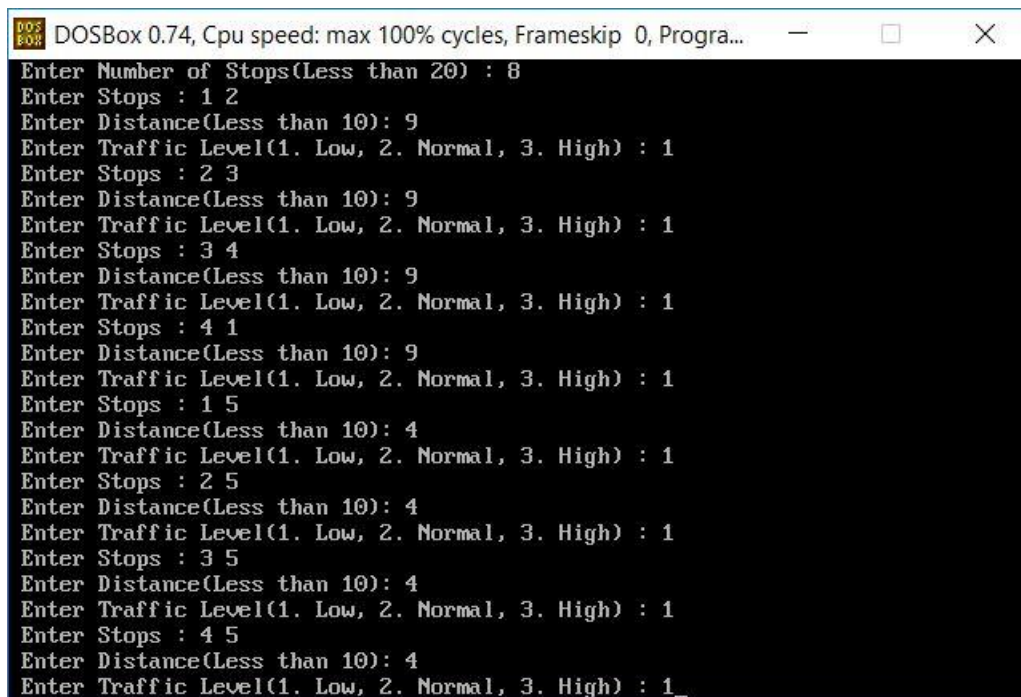
```

```

        if(sol[x]==0 || sol[y]==0)
        {
            sol[x]=1;
            sol[y]=1;
            edge[3][i]=1;
            return 1;
        }
        else
        {
            return 0;
        }
    }
}

```

Outputs



The screenshot shows a DOSBox window titled "DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Progra...". The window contains a black terminal area with white text. The text shows a series of prompts and user inputs, indicating a program that processes multiple sets of data. Each set consists of a number of stops, a distance, and a traffic level. The program appears to be calculating or determining something based on these inputs, with the final output being a series of '1's.

```

DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Progra...
Enter Number of Stops(Less than 20) : 8
Enter Stops : 1 2
Enter Distance(Less than 10): 9
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 2 3
Enter Distance(Less than 10): 9
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 3 4
Enter Distance(Less than 10): 9
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 4 1
Enter Distance(Less than 10): 9
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 1 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 2 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 3 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 4 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1_

```

```
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Progra...
Enter Distance(Less than 10): 9
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 4 1
Enter Distance(Less than 10): 9
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 1 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 2 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 3 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1
Enter Stops : 4 5
Enter Distance(Less than 10): 4
Enter Traffic Level(1. Low, 2. Normal, 3. High) : 1

Routes Considered :
Edge 1 5, Cost : 4
Edge 2 5, Cost : 4
Edge 3 5, Cost : 4
Edge 4 5, Cost : 4
```