OEP

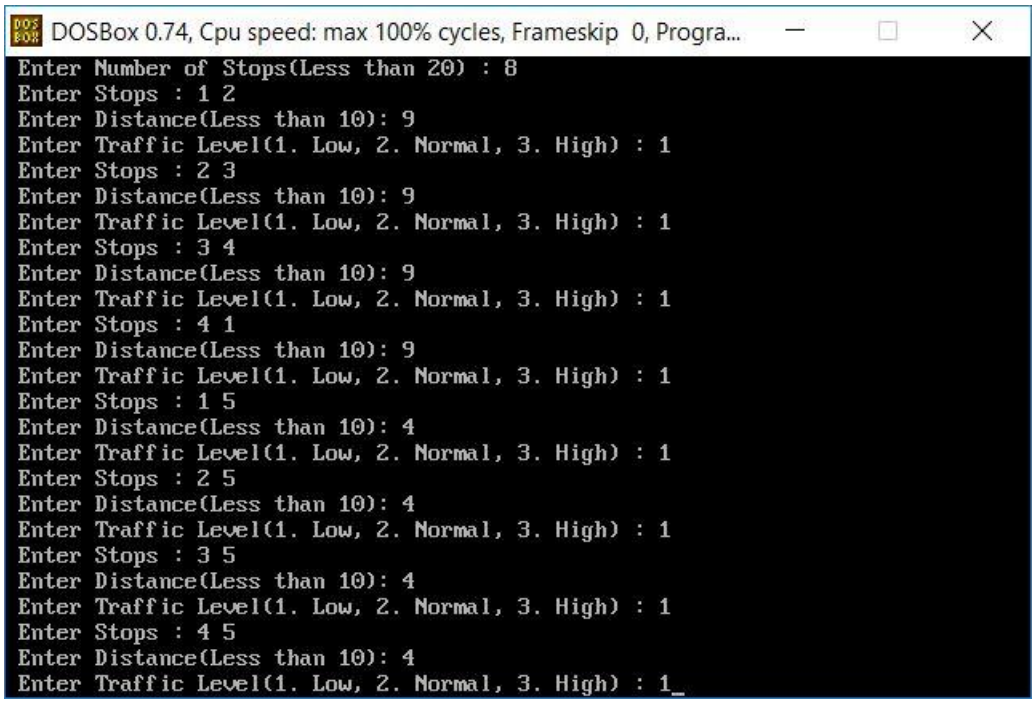
BRTS route Design, considering traffic, traffic on road, and benefits.

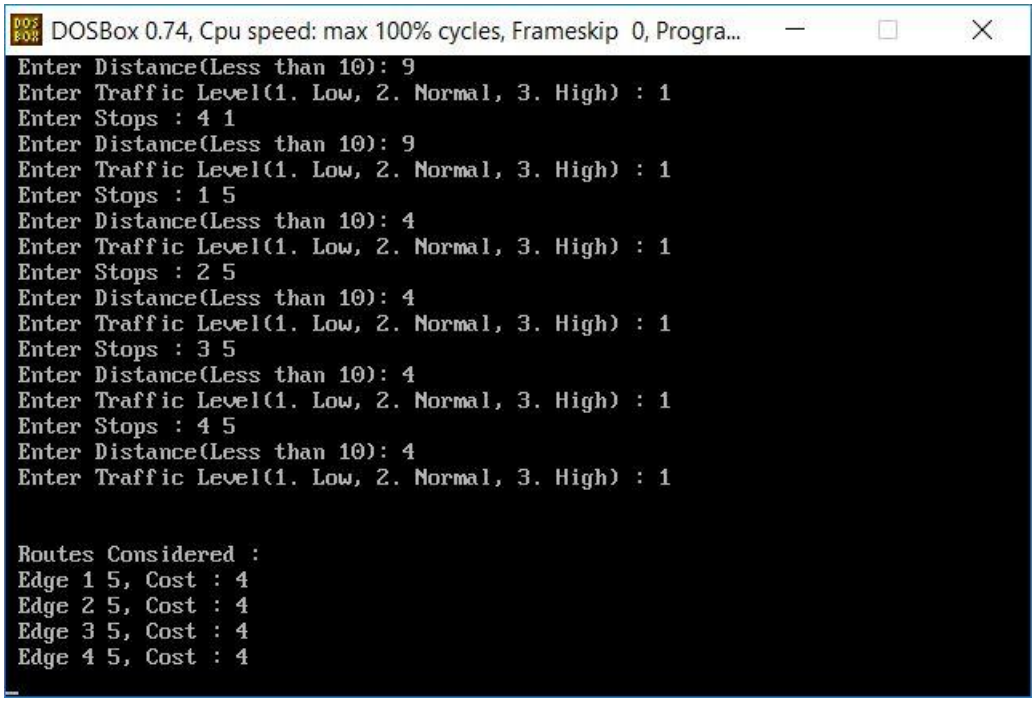
```
#include<stdio.h>
#include<conio.h>
edge[4][10], sol[10], n, i;
void swap(int);
int check(int, int);
int main()
{
	int j, x, y, dist, traff;
	clrscr();
	printf(" Enter Number of Stops(Less than 20) : ");
	scanf("%d",&n);
	for(i=0; i<n; i++)
	{
		printf(" Enter Stops : ");
		scanf("%d %d",&x,&y);
		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




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