

/* Read the data from file 'cities.txt' containing names of their STD codes. Accept a name of city from user and use linear search algorithm to check whether the name is present in file and output the STD code, otherwise output 'city not in list'.*/

//Reading from file

#include<stdio.h>

typedef struct city

{

 char name[20];

 int code;

} city;

//Fileread

int fileread(city a[20])

{

```
FILE *fp;
```

```
int i=0;
```

```
fp=fopen("cities.txt","r");
```

```
if(fp==NULL)
```

```
    printf("File Not Exist");
```

```
else
```

```
{
```

```
    while(!feof(fp))
```

```
    {
```

```
        fscanf(fp,"%s%d", a[i].name, &a[i].code);
```

```
        i++;
```

```
    }
```

```
    fclose(fp);
```

```
}
```

```
    return i-1;  
}
```

```
//Main
```

```
int main()
```

```
{
```

```
    int i, n;
```

```
    char key[20];
```

```
    city a[20];
```

```
    n = fileread(a);
```

```
    for(int i=0; i<n; i++)
```

```
        printf("%s %d\n", a[i].name, a[i].code);
```

```
    /* displaying records*/
```

```
linearsearch(n);
```

```
}
```

```
//Linear Search
```

```
linearsearch(int n)
```

```
{
```

```
city a[20];
```

```
    n=fileread(a);
```

```
char str[20];
```

```
    int index,flag=0;
```

```
    printf("Enter city:");
```

```
    scanf("%s",str);
```

```
    for(int i=0;i<n;i++)
```

```
    {
```

```
        if(strcmp(str,a[i].name)==0)
```

```
{  
    flag=1;  
    index=i;  
}  
}  
  
if(flag==1)  
    printf("City Code: %d",a[index].code);  
  
else  
    printf("City Not in list");  
  
}
```