The Insurance company decided to provide the offer for the existing customer who resides in Bangalore. The list of selected customer (Name, Mobile Number, and Place) information has to be displayed on the website. Use a circular linked list to store the information of the customer and develop a C function to display all the customers who resides in Bangalore.

```
#include<stdio.h>
#include<stdlib.h>
#include<math.h>
#include<string.h>
struct node
{
   char name[100];
   char mobile[100];
   char place[100];
   struct node *next;
};
typedef struct node *NODE;

NODE getnode()
{
   NODE x;
   x=(NODE)malloc(sizeof(struct node));
   return x;
}
NODE insert_rear(NODE last,char name[],char mobile[100],char place[100])
{
   NODE new_node;
   new_node=getnode();
   strcpy(new_node->name,name);
   strcpy(new_node->mobile,mobile);
```

```
    strcpy(new_node->place,place);
    if(last==NULL)
    {
       new_node->next=new_node;
       return new_node;
    }
    else
    {
       new_node->next=last->next;
       last->next=new_node;
       last=new_node;
       return  last;
    }
}
void display(NODE last)
{
    int flag=0;
    NODE i;
    printf("PERSONS FROM BANGALORE ARE\n");
    if(last==NULL)
    {
       printf("List iS empty and Cannot Be Displayed\n");
       return;
    }
    for(i=last->next;i!=last;i=i->next)
    {
       if(strcmp(i->place,"Bangalore")==0)
       {
          flag=1;
          printf("NAME:%s \n",i->name);
          printf("MOBILE:%s: \n",i->mobile);
```

```
            printf("PLACE:%s\n",i->place);
        }

    }
    if(strcmp(i->place,"Bangalore")==0)
    {
        flag=1;
        printf("NAME: %s \n",i->name);
        printf("MOBILE: %s \n",i->mobile);
        printf("PLACE: %s\n",i->place);
    }
    if((flag==0))
    {
        printf("SORRY THERE ARE NO CUSTOMERS FROM BANGALORE\n");
    }
}
int main()
{
    int i=0;
    NODE last=NULL;
    int option;
    char name[50];
    char mobile[50];
    char place[50];
    do
    {
        printf("1:Insert Details\n");
        printf("2:Display Customers In Bangalore\n");
        printf("3:EXIT\n");
        printf("Enter your choice\n");
        scanf("%d",&option);
```

```
        switch(option)
        {
        case 1:
           printf("Enter the name of customer %d \n",(i+1));
           scanf("%s",name);
           printf("Enter the mobile number of customer %d \n",(i+1));
           scanf("%s",mobile);
           printf("Enter the place of the customer %d \n",(i+1));
           scanf("%s",place);
           last=insert_rear(last,name,mobile,place);
           i++;
           break;
        case 2:
           display(last);
           break;
        }
    }while(option!=3);
}
```

OUTPUT:

```
1:Insert Details
2:Display Customers In Bangalore
3:EXIT
Enter your choice
1
Enter the name of customer 1
Mahesh
Enter the mobile number of customer 1
953245609
Enter the place of the customer 1
Benbaluru
1:Insert Details
2:Display Customers In Bangalore
3:EXIT
Enter your choice
1
Enter the name of customer 2
Ramesh
Enter the mobile number of customer 2
985342421
Enter the place of the customer 2
channai
1:Insert Details
2:Display Customers In Bangalore
3:EXIT
Enter your choice
1
Enter the name of customer 3
Rajesh
Enter the mobile number of customer 3
93723238
Enter the place of the customer 3
Bangalore
1:Insert Details
2:Display Customers In Bangalore
3:EXIT
Enter your choice
2
PERSONS FROM BANGALORE ARE
NAME: Rajesh
MOBILE: 93723238
PLACE: Bangalore
1:Insert Details
2:Display Customers In Bangalore
3:EXIT
Enter your choice
```