```
#include <stdio.h>
#include <conio.h>
int tsize;

int hasht(int key)
{
 int i ;
 i = key%tsize ;
 return i;
}

int rehashl(int key)
{
 int i ;
 i = (key+1)%tsize ;
 return i ;
}
int rehashq(int key, int j)
{
 int i ;
 i = (key+(j*j))%tsize ;
 return i ;
}

void main()
{
    int key,arr[20],hash[20],i,n,s,op,j,k ;
    printf ("Enter the size of the hash table:  ");
    scanf ("%d",&tsize);

    printf ("\nEnter the number of elements: ");
    scanf ("%d",&n);

    for (i=0;i<tsize;i++)
 hash[i]=-1 ;

    printf ("Enter Elements: ");
    for (i=0;i<n;i++)
    {
 scanf("%d",&arr[i]);
    }

    do
    {
```

```
printf("\n\n1.Linear Probing\n2.Quadratic Probing \n3.Exit \nEnter your option: ");
scanf("%d",&op);
switch(op)
{
case 1:
   for (i=0;i<tsize;i++)
   hash[i]=-1 ;

   for(k=0;k<n;k++)
   {
 key=arr[k] ;
 i = hasht(key);
 while (hash[i]!=-1)
 {
    i = rehashl(i);
 }
 hash[i]=key ;
   }
   printf("\nThe elements in the array are: ");
   for (i=0;i<tsize;i++)
   {
 printf("\n  Element at position %d: %d",i,hash[i]);
   }
   break ;

case 2:
   for (i=0;i<tsize;i++)
 hash[i]=-1 ;

   for(k=0;k<n;k++)
   {
 j=1;
 key=arr[k] ;
 i = hasht(key);
 while (hash[i]!=-1)
 {
    i = rehashq(i,j);
    j++ ;
 }
 hash[i]=key ;
   }
   printf("\nThe elements in the array are: ");
   for (i=0;i<tsize;i++)
   {
```

```
  printf("\n Element at position %d: %d",i,hash[i]);
     }
     break ;

 }
    }while(op!=3);

    getch();
}
```