PROGRAM 08

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```
//For storing values in list
typedef struct item
{
  int data
  struct item *next;
}node;
node *ptr[max], *temp[max], *root[max];
class Dictionary
{ public:
    int ind;
    void insert(int);
    void delete(int);
    void search(int);
    Dictionary();
};
Dictionary::Dictionary()
{  ind=-1;
   for(int i=0; i<max; i++)
{ root[i]=NULL;
  ptr[i]=NULL;
  temp[i]=NULL; } }
```

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```
// seperate chaining
void Dictionary::insert(int k)
{
  ind = hf(k%max);
  ptr[ind] = (node*)malloc(sizeof(node));
  ptr[ind]->data = k;
  if(root[ind]==NULL)
  { root[ind] = ptr[ind];
    root[ind]->next = NULL;
    temp[ind] = ptr[ind]; }
  else{
    temp[ind] = root[ind];
  while(temp[ind]->next!=NULL) temp[ind]=temp[ind]->
                                          next;
    temp[ind]->next = ptr[ind]; }}
void Dictionary::search(int k)
{  int f=0;
   ind=int(k%max);
   temp[ind] = root[ind];
  while(temp[ind]!=NULL)
   if(temp[ind]->data==k)
  { cout<<"Key Found!\n";
    f=1;
    break;
  }
```

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        else temp[ind] = temp[ind]->next;
    if (f==0) cout<< "Key not found \n";
}

void Dictionary :: Delete (int k)
{
  index = int(K % max);
  temp[ind] = root[ind];
  while(temp[ind]->data!=K && temp[ind]!=NULL)
  {
    ptr[ind] = temp[ind];
    temp[ind] = temp[ind]->next;
  }
  ptr[ind]->next = temp[ind]->next
  cout<<"K<<" is deleted \n";
  temp[index]->data=-1;
    temp[ind]=NULL;
    free(temp[ind]);
}
```