

8] Implement function of Dictionary using Hashing.

```
void Dictionary::Search(int key)
{
    int flag = 0;
    index = int(key % max);
    temp[index] = root[index];
    while(temp[index] != NULL)
    {
        if(temp[index] -> data == key)
        {
            cout << "In Search Success";
            flag = 1;
            break;
        }
        else
            temp[index] = temp[index] -> next;
    }
    if(flag == 0)
        cout << "In Search Unsuccessful";
}
```

```
Dictionary::Dictionary() {
```

```
    index = -1;
```

```
    for(int i = 0; i < max; i++) {
```

```
        root[i] = NULL;
```

```
        ptr[i] = NULL;
```

```
        temp[i] = NULL;
```

```
    }
```

```
}
```

```
void Dictionary::insert(int key)
```

```
{
```

```
    index = int(key % max);
```

```
    ptr[index] = (node_type*) malloc(sizeof(node_type));
```

```
    ptr[index] -> data = key; ①
```



```
if (root[index] == NULL)
```

```
{
    root[index] = ptr[index];
    root[index] → next = NULL;
    temp[index] = ptr[index];
}
```

```
else {
    temp[index] = root[index];
    while (temp[index] → next != NULL)
        temp[index] = temp[index] → next;
    temp[index] → next = ptr[index];
}
}
```

```
void Dictionary :: delete_ele (int key) {
```

```
    index = int (key / max);
```

```
    temp[index] = root[index];
```

```
    while (temp[index] → data != key && temp[index] != NULL)
```

```
{
        ptr[index] = temp[index];
        temp[index] = temp[index] → next;
    }
```

```
temp[index] = temp[index] → next; ptr[index] → next = temp[index] → next;
```

```
temp[index] = temp[index] → next;
```

```
    cout << "In " << temp[index] → data << " has deleted ";
```

```
    temp[index] → data = -1;
```

```
    temp[index] = NULL;
```

```
    free (temp [index]);
```

```
}
```