

Batch-3

ADS LAB

Pragya Patel

18M7ES062

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 << "\n Search success:";
```

```
        flag=1;
```

```
        break;
```

```
    }
```

```
    else
```

```
        temp [index] = temp [index] -> next;
```

```
}
```

```
    if (flag == 0)
```

```
        cout << "\n 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;
```

```
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 % max) || temp[index] == NULL)
    {
        ptr[index] = temp[index];
        temp[index] = temp[index] -> next;
    }
    ptr[index] -> next = temp[index] -> next;
    cout << "\n" << temp[index] -> data << "
    not deleted";
```

temp[inden] -> data = -1;

temp[inden] = NULL;

free(temp[inden]);

}