

ADS

## Implementing Dictionary using Hashing

Pseudo code:

```

type def struct list
{
    ...
};

```

```

class Dictionary
{
    function calls ();
};

```

```

void Dictionary :: search search (int key)
{
    index = int (key % max); int flag = 0;
    temp [index] = root [index];
    while (temp [index] != NULL)
    {
        if (temp [index] -> data == key)
        {
            flag = 1;
            break;
        }
        else temp [index] = temp [index] -> next;
    }
    if (flag == 0) continue;
}

```

```

void Dictionary :: insert (int key)
{
    index = (int) key % 10;
    ptr [index] = (node) malloc (size of node);
    ptr [index] -> data = key;
    if (root [index] == NULL)
    {
        ...
    }
}

```

Teacher's Signature : \_\_\_\_\_

```
root[index] = ptr[index];
```

```
root[index] → next = NULL;
```

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

```
}
```

```
clr
```

```
{
```

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

```
while (temp[index] → next != NULL)
```

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

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

```
}
```

```
}
```

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

```
{
```

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

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

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

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

```
{ ptr[index] = temp[index]
```

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

```
}
```

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

```
temp[index] → data = -1;
```

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

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

```
}
```