

Name: Rohit Kudache

USN: 1BM18CS083

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LAB-8 Insertion in RB Tree.

PROGRAM - 8 Implement Function of Dictionary Using Hashing.

// Search Function.

```
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::Dictionary () {  
    index = -1;  
    for (int i = 0; i < max; i++) {  
        root [i] = NULL;  
        ptr [i] = NULL;  
        temp [i] = NULL;  
    }  
}
```



// insert Function

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] ;

} }

// Delete Function

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 ; }

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

cout << "\n" << temp[index] → data << " has deleted" ;

temp[index] → data = -1 ;

temp[index] = NULL ;

free (temp[index]) ;

}