

Implementation of Bst using Hashing

Shikha N.

18M18CS149
25-11-20

```
class HashTableEntry {  
    public:
```

```
        int k;  
        int v;  
        HashTableEntry(int k, int v) {  
            this.k = k;  
            this.v = v;  
        }  
};
```

```
class HashMapTable {  
    private:
```

```
        HashTableEntry ** t;
```

```
    public HashMapTable() {  
        t = new HashTableEntry*[Size];  
        for (int i = 0; i < Size; i++)  
            t[i] = NULL;  
    }
```

```
    int hashFunc(int k) {  
        return k % Size;  
    }
```

```
    void Insert(int k, int v) {  
        int h = hashFunc(k);  
        while (t[h] != NULL && t[h] -> k != k) {  
            h = hashFunc(h+1);  
            // Linear Probing  
        }
```

```
        if (t[h] != NULL) {  
            delete t[h];  
            t[h] = new HashTableEntry(k, v);  
        }  
    }
```

Shikha

```
int search(int k)
```

```
{ int h = hashFunc(k);
```

```
while (t[h] != NULL && t[h] → k' ≠ k) {
```

```
h = hashFunc(h+1);
```

```
}
```

```
if (t[h] == NULL)
```

```
return -1;
```

```
else
```

```
return t[h] → v;
```

```
}
```

```
void deleteEle(int k) {
```

```
int h = hashFunc(k);
```

```
while (t[h] != NULL) {
```

```
if (t[h] → k == k)
```

```
break;
```

```
h = hashFunc(h+1);
```

```
if
```

```
(t[h] == NULL) {
```

```
cout << " NO element found at  
key" << k << endl;
```

```
return;
```

```
}
```

```
else {
```

```
delete t[h];
```

```
cout << " element deleted "
```

```
}
```

```
}
```

```
};
```