

Week 8 : Assignment = Arbaz Ahmed  
IBMICS401

class HashNode

{ public:

int key, value;

HashNode \*next;

HashNode(int key, int value)

{ this->key = key;

this->value = value;

this->next = NULL;

};

class HashMap

{ private:

HashNode \*htable;

public:

HashMap() {

htable = new HashNode[Table-size];

for (i=0; i < Table-size; i++)

htable[i] = NULL;

HashMap() {

for (i=0; i < Table-size; i++)



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WK 47 - 320-046

NOVEMBER 2016  
TUESDAY

		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			
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```

8  { HashNode* entry = htable[i];
9  while (entry != NULL) {
10     HashNode* prev = entry;
11     entry = entry->next;
12     delete prev;
13 } delete[] htable;

```

```

1 int Hashfun(int key)
2 { return key % TABLE_SIZE;
3 }

```

```

4 void insert(int key, int value)
5 {
6     int hash_val = Hashfun(key);
7     HashNode* prev = NULL;
8     HashNode* entry = htable[hash_val];
9     while (entry != NULL)
10     {
11         prev = entry;
12         entry = entry->next;
13     }
14     if (entry == NULL)
15     {
16         entry = new HashNode(prev, value);
17         if (prev == NULL)
18             htable[hash_val] = entry;
19     }
20 }

```



```

    }
    prev->next = entry

```

```

    }
    entry->val = value
}

```

~~void~~ Remove (int key)

```

    int hash_val = hashfun(key);
    HashNode* entry = table[hash_val];
    HashNode* prev = NULL;

```

```

    if (entry == NULL || entry->key != key)

```

```

    {
        cout << "No element found at key" << key << endl;
        return;
    }

```

```

    while (entry->next != NULL) {

```

```

        prev = entry

```

```

        entry = entry->next

```

```

    }
    if (prev != NULL)

```

```

        prev->next = entry->next;

```

```

    delete entry;

```

```

    cout << "deleted" << key << endl;
}

```

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WK 46 - 317-049

NOVEMBER 2016  
SATURDAY

	1	2	3	4	5
6	7	8	9	10	11
13	14	15	16	17	18
20	21	22	23	24	25
27	28	29	30		
Su	M	T	W	T	F

\* Cent Search (int key)

bool flag = false;

int hash\_val = Hashfunc(key);

HashNode\* entry = htable[hash\_val];

While (entry != NULL)

{ if (entry->key == key)

{ cout << entry->value << " ";  
flag = true;

}

entry = entry->next

}

if (!flag)

return -1;

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SUNDAY

WK 46 - 318-049