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ADS
Write-Up

GUKU NANDA
IBM18CS031

// Write a program to implement functions of Dictionary
// using Hashing

```
struct list
{
    int data;
    struct list *next;
} node_type;
node_type *ptr[max], *root[max], *temp[max];

class Dictionary {
    public:
        int index;
        Dictionary();
        void insert(int);
        void search(int);
        void deleteele(int);
};

insert(int key) {
    index = int(key % max)
    ptr[index] -> data = key
    if (root[index] == NULL){
        root[index] = ptr[index]
        root[index] -> next = NULL
    } else {
        temp[index] = ptr[index]
        temp[index] = root[index]
        while (temp[index] -> next != NULL)
            temp[index] = temp[index] -> next
        temp[index] -> next = ptr[index]
}   }
```

```
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
    // done deleting print
    temp[index] -> data = -1
    temp[index] = NULL
    free (temp[index])
}
```

GURU NANMA
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```
search(int key) {
    int flag = 0
    index = int(key / max)
    temp[index] = root[index]
    while (temp[index] != NULL)
        if (temp[index] -> data == key)
            // found
            flag = 1
            break
        else
            temp[index] = temp[index] -> next;
    if flag == 0
        // Print key not found.
```