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IBM18CS139

```
void insert (int key)
```

```
{
    index = int (key % max);
    ptr[index] = (node_type*) malloc (size of (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] -> data = key;
        temp[index] = root[index];
        while (temp[index] -> next != NULL)
            temp[index] = temp[index] -> next;
        temp[index] -> next = ptr[index];
    }
}
```

```
void Search (int key)
```

```
{
    int flag = 0;
    index = int (key % max);
    temp[index] = root[index];
    while (temp[index] != NULL)
    {
        if (temp[index] -> data == key)
        {
            cout << "Search key is found";
            flag = 1;
            break;
        }
    }
}
```

```

    else temp[index] = temp[index] -> next;
}

```

```

if (flag == 0)
    cout << "Search key not found";
}

```

```

void delete (int key)
{

```

```

    {

```

```

        index = int ( key % max);

```

```

        temp[index] = root[index];

```

```

        while (temp[index] -> data != key && temp[index] != NULL)

```

```

    {
        index = int (key % max); ptr[index] = temp[index];
        temp[index] = root[index]; temp[index] = temp[index] -> next;
        which (temp)

```

```

    }

```

```

    ptr[index] -> next = temp[index] -> next;

```

```

    cout << " " << temp[index] -> data << "deleted";

```

```

    temp[index] -> data = -1;

```

```

    temp[index] = NULL;

```

```

    free (temp[index]);

```

```

}

```