

## Hashing

```
class Dictionary
{
    node head[MAX];
    Dictionary()
    {
        for (i=0; i<MAX; i++)
            head[i] = NULL;
    }
    int hashfunction(string word);
    bool insert(string, string);
    string find(string word);
};

string find(string word)
{
    int index = hashfunction(word);
    node start = head[index];
    if (start == NULL)
        return "-1";
    while (start != NULL)
    {
        if (start->key == word)
            return start->value;
        start = start->next;
    }
    return "-1";
}
```

```
bool insert (string word, string meaning)
{
```

```
    int index = hashfunction (word);
```

```
    node p = new node (word, meaning);
```

```
    if (head[index] == NULL)
```

```
    {
```

```
        head[index] = p;
```

```
        cout << "\n" << word << "inserted";
```

```
        return true;
```

```
    }
```

```
    else
```

```
    {
```

```
        node start = head[index];
```

```
        while (start->next != NULL)
```

```
            start = start->next;
```

```
            start->next = p;
```

```
            return true;
```

```
    }
```

```
    return false;
```

```
}
```

```
int hashfunction (string word)
```

```
{
    int sum = 0;
```

```
    for (i = 0; i < word.length(); i++)
```

```
        sum = sum + word[i];
```

```
    return (sum % 100)
```

```
}
```