

```

// GradeReporter.h: header file

#pragma once
class GradeReporter
{
private:
    int* arr_;
    int size_;
public:
    // constructor
    GradeReporter(int* arr, int size);
    // [] overload
    int operator[] (const int k) const;
};

// GradeReporter.cpp: class implementation file
#include "GradeReporter.h"

// constructor
GradeReporter::GradeReporter(int* arr, int size) {
    arr_ = arr;
    size_ = size;
}

// [] overload
int GradeReporter::operator[] (const int k) const {
    int res = 0;
    for (int i = 0; i < size_; i++) {
        if (arr_[i] >= 10 * k + 1 && arr_[i] <= 10 * k + 10) {
            res++;
        }
    }
    return res;
}

// main.cpp: main file, test class

#include "GradeReporter.h"
#include <iostream>

using namespace std;

int main() {
    // Initialize grades int array
    int arr[] = {55, 2, 2, 21, 4, 56, 23, 32, 12, 56, 76, 33, 44, 77, 88, 99,
100, 93, 71, 3};
    int size = sizeof(arr) / sizeof(arr[0]);

    // Test [] overload
    GradeReporter reporter = GradeReporter(arr, size);
    cout << "1-10: " << reporter[0] << endl;
    cout << "51-60: " << reporter[5] << endl;
    cout << "91-100: " << reporter[9] << endl;

    return 0;
}

```