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22/492162/PA/21075

WEEK 7 ASSIGNMENT

1. Source code:

```cpp
#include <iostream>
#include <iomanip>
using namespace std;

float calculateGPA(int n, char scores[], int credits[]){
    float totalScore=0;
    float totalCredit=0;

    for (int i=0; i<n; i++){
        totalCredit += credits[i];
        if (scores[i] == 'A'){
            totalScore += (credits[i] * 4);
        } else if (scores[i] == 'B'){
            totalScore += (credits[i] * 3);
        } else if (scores[i] == 'C'){
            totalScore += (credits[i] * 2);
        } else if (scores[i] == 'D'){
            totalScore += (credits[i] * 1);
        } else if (scores[i] == 'E'){
            totalScore += (credits[i] * 0);
        }
    }

    return totalScore/totalCredit;
}

int main(){
    int n;

    cout << "Input the number N!";
    cin >> n;
    char scores[n];
    int credits[n];

    cout << "Input the scores!";
    for (int i=0; i<n; i++){
        cin >> scores[i];
    }

    cout << "Input the credit values!";
    for (int i=0; i<n; i++){
        cin >> credits[i];
    }

    float result = calculateGPA(n, scores, credits);

    cout << "The GPA = ";
    cout << fixed << setprecision(2) << result;
```

Screenshot:

```
Input the number N!5
Input the scores!A A B C A
Input the credit values!3 2 3 2 3
The GPA = 3.46
```

```
Input the number N!4
Input the scores!C D C C
Input the credit values!3 2 2 3
The GPA = 1.80
```

2. Source code:

```cpp
#include <iostream>
#include <string>
using namespace std;

string stringFromRight(string st, int n){
    int length = st.length();
    return st.substr((length-n), n);
}

int main(){
    int n;
    string st;

    cout << "Input the number N!";
    cin >> n;
    cout << "Input the string!";
    getline (cin >> ws, st);

    string result = stringFromRight(st, n);
    cout << result;
}
```

Screenshot:

```
Input the number N!5
Input the string!Yogyakarta
karta
```

```
Input the number N!7
Input the string!Muhammad Rafi Cahya Ramadhana
madhana
```

```
Input the number N!10
Input the string!Universitas Gadjah Mada
adjah Mada
```