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/*****
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*   Filename:  A2grades.cpp
*
*   Overview:
*       This program will calculate a percentage based on grades
*       entered for a variable amount of assignments.
*   Input:
*       The user will input number of assignments, grade earned,
*       and total points for the assignments.
*   Output:
*       The output will be total points earned, total points of
*       all assignments, and percentage earned.
*****/

#include<iostream>

using std::cout;//I entered this and the following 2 because some c++ sites
using std::cin;// have noted this is good practice rather than just using
using std::endl;// the using namespace std.
using namespace std;

int main()
{
    int num_ass; //variable for number of assignments
    int num_earn;// variable for points earned
    int num_total;//variable for points total
    int count = 1;//counter to track input
    float TP_earn = 0;//total of all earned points
    float TP_Total = 0;//total of all points possible

    //ask user for number of assignments to be calculated
    cout<<"Enter the Total number of Assignments to be calculated: ";
    cin>>num_ass;
    //into to next section showing the number of assignments they entered
    cout<<"Now enter the points earned and total points for "<<num_ass<<"
        assignments.";

    cout<<endl;//blank line for readability

    while (count++<=num_ass) //while statement based on count being equal to number
    {
        //input by the user
        cout<<"Enter the Points earned on the assignment: ";
        cin>>num_earn;
        cout<<"Enter the Total points for the assignment: ";
        cin>>num_total;
        TP_earn = TP_earn + num_earn;//this adds the points earned to the total
        TP_Total = TP_Total + num_total;//this adds the total points earned to the
            total
        count+1;//this adds 1 to the count
    }
    //the following shows the output: total points, points possible, average
    cout<<"Total points earned is: "<<TP_earn<<endl;
    cout<<"Total points possible is: "<<TP_Total<<endl;
    cout<<"Your Average is: "<<((TP_earn)/(TP_Total)*100)<<"%"<<endl;

    return 0;
}

```