

Project 1 Report

The objective of this first project is to get started on the eventual degree requirements check program we will be completing at the end of the semester. The first step in that program is a basic GPA calculator using the very basic C++ arithmetic operators as well as in/out statements. At first I was a bit confused as to exactly how I would structure the program, however it immediately became clear that with the limited tools at my disposal, I should go for the most straightforward approach. My plan was to create separate variables for all grades and their respective hours, as they needed to be compared individually using an “if” statement to calculate the correct number of weighted grade points based on the number of hours. Once I had created the “if” statements for all 4 class and successfully was able to get the correct grade point values based on the grade and hours, I totaled both together in their respective variables. Once all the grade points were stored in one variable and all the credit hours in another, it was a very basic operation to calculate the actual GPA. All that was needed was to divide the grade points by the total number of hours and return that number to the user. I had a few syntax errors as well as variable declaration errors along the way with so many different variables, however all errors and warnings have been taken care of and the program works for all test cases! As far as I know, there are no known problems with the basic calculation, given the right seed values.