



# C++

## Programming Step-by-Step

Asadullah Shah



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# **C++ PROGRAMMING: STEP BY STEP**

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**Editors**

Asadullah Shah



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# 4. DECISION MAKING: IF-ELSE STATEMENTS AND RELATIONAL OPERATORS

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## Abstract

When instructions within a program are executed one after the other sequentially that program is said to have a linear structure. Decision making after examining all available options is very important in life as well as in programming. For example, it is the law that all males 18 or older should register with the selective service. If you are writing a program to send out reminders to enforce this law, the decision to send the letter should be based on if a person is male and if he is 18 or older. In this chapter you will learn how to write statements that make decisions.

## 4.1 Basic If-Else statements

Given in figure 4.1 is a simple program for calculating student grades for them.

There are several enhancements to this program. This function `"#include <iomanip>` "allows the output to be formatted. There are several stream manipulators in the "iomanip". You may use *setw*, *fixed*, *showpoint* and *setprecision* manipulators to give field width, fixed-point notation, decimal point, and significant digits, respectively. You can also use `cin.ignore()` before the `getchar()` that will clear the keyboard buffer of the newline character.