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Chapter 3

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If Statement Worksheet

Write a c++ if statement for each situation. You also need to write additional code to respond to the conditions.

1. parts\_on\_hand is an integer representing the number of parts on hand. If the number of parts on hand drops below 50, call the reorder() function.

if (parts\_on\_hand < 50)

{

reorder();

}

2. The user was supposed to type in 10 numbers. num\_data\_points tells how many numbers the user typed. If the user entered less than ten points, print an error message.

if (num\_data\_points < 10)

{

cout << "Error: You have not entered 10 numbers\n";

}

3. A value has been entered into the double variable current\_asset. If the value is positive, (this means it is greater than 0), add it to the double variable total\_value.

if (current\_asset > 0)

{

total\_value += current\_asset;

}

4. The integer variable parts\_sold contains the number of parts sold during the last sale. The integer variable total\_parts\_sold contains the total number of parts sold since the company started (excluding the last sale.) If the new total number of parts sold (a calculation is necessary here!) is greater than or equal to 1,000,000, print “Goal achieved”.

if ((parts\_sold+total\_parts\_sold) >= 1000000)

{

cout << "Goal achieved\n";

}

5. The double precision variable invoice\_amount contains the amount of money a customer owes. due\_date is a string variable that contains the date the amount is due and todays\_date is a string variable containing today’s date. If the bill is late, add a 10% late fee. Store the total in the variable amount\_due.

if (due\_date.compare(todays\_date) <= 0)

//due date must be smaller than today's date

{

amount\_due = invoice\_amount \* 1.1;

}

1. The company you work for is selling tickets to an event. Adult tickets cost $15, while children’s tickets cost $5. The character variable ticket\_class contains A or C. Set the int variable ticket\_price to the correct amount based on ticket\_class.

if (ticket\_class.compare("A") == 0)

{

ticket\_price = 15;

}

else

{

ticket\_price = 5;

}

2. You are scoring a test. The integer variable my\_Answer contains the answer to a problem on the test. The integer variable correct\_answer contains the correct answer to the problem. The integer variable test\_score contains the student’s score. If the answer was correct, add 10 points to the student’s score. If the answer was incorrect, subtract two points from the score.

if (my\_Answer == correct\_answer)

{

test\_score += 10;

}

else

{

test\_score -= 2;

}

3. You are programming a computer game. The player comes to a tee in the road and has to make a choice: Should the player turn left or right? The character variable player\_choice contains L or R, indicating the choice. If the player turns right, print “You win the gold!” If the player turns left, print “You were eaten by a tiger.”

if (player\_choice == 'R')

{

cout << "You win the gold!\n";

}

else

{

cout << "You were eaten by a tiger.\n";

}

4. You have guests coming over for dinner. If your friend comes, you need to make cookies for dessert. If your sister comes, you need to bake a pie. The character variable whos\_coming contains S for sister, F for friend. Set the String variable dessert\_feature to “Pie” or “Cookies” based on who’s coming to dinner.

if (whos\_coming == 'S')

{

dessert\_feature = "Pie";

}

else

{

dessert\_feature = "Cookies";

}

5. (This one is a more challenging.) There are three categories of words, short (3 letters or fewer), medium (4 to 7 letters), and long (more than 7 letters.) The length of a word is stored in the integer variable word\_len. Set the string variable word\_type to “SHORT”, “MEDIUM” or “’LONG” depending on the length of the word.

if (word\_len <= 3)

{

word\_type = "SHORT";

}

else if (word\_len >= 4 && word\_len <= 7)

{

word\_type = "MEDIUM";

}

else

{

word\_type = "LONG";

}