Follow Coding Standards

Day 1 Assignments

1. Write a function that prints a specified number of stars on the screen. This number should default to 1. If it’s zero or negative, assume the number to be one. Then write a program to test the function.
2. Write a function that takes 3 input arguments: (a) starting number, (b) an ending number, and (c) a number representing the number of integers to be output per line. This latter value should default to 5. Display all of the numbers in the specified range in the format specified by the third argument.

Then write a main () function that tests the function by:

● Reading in three integer numbers (start, end, and number-per-line) within a while loop. If ‘$’ is entered, the program should terminate.

●Ensure that the starting number is less than or equal to the ending number.

● Calling the function using all three actual arguments.

● Calling the function using only the first two arguments.

**3**. Given the main() function:

int main()

{

int array[] = { 5, -6, 21, 15, -8};

const int length = sizeof(array) / sizeof(int);

int max, min;

find( array, length, max, min);

cout << " max = " <<max;

cout << " min = " <<min;

return 0;

}

Write the function find() that finds the maximum and minimum values in the array. Test the program again by changing the contents and length of the array.

1. Create an Account class that a bank might use to represent customers’ bank accounts. Include a data member of type int to represent the account balance. Provide a ***SetData*** member function that receives an initial balance and uses it to initialize the data member. It should validate the initial balance to ensure that it’s greater than or equal to 0. If not, set the balance to 0 and display an error message indicating that the initial balance was invalid. Provide three member functions. Member function ***credit*** should add an amount to the current balance. Member function ***debit*** should withdraw money from the Account and ensure that the debit amount does not exceed the Account’s balance. If it does, the balance should be left unchanged and the function should print a message indicating "Debit amount exceeded account balance." Member function ***getBalance*** should return the current balance. Create a program that creates two Account objects and tests the member functions of class Account.
2. Create a class called Invoice that a hardware store might use to represent an invoice for an item sold at the store. An Invoice should include four data members—a part number (type string), a part description (type string), a quantity of the item being purchased (type int) and a price per item (type int). Provide a ***set*** and a ***get*** function for each data member. In addition, provide a member function named ***getInvoiceAmount*** that calculates the invoice amount (i.e., multiplies the quantity by the price per item), then returns the amount as an int value. If the quantity is not positive, it should be set to 0. If the price per item is not positive, it should be set to 0. Write a test program that demonstrates class Invoice’s capabilities.