Vocabulary:

Abstraction : Abstraction means to have a user interact with an item at a high-level, with lower-level internal details hidden from the user (aka information hiding or encapsulation).

Class : The class construct defines a new type that can group data and functions to form an object.

Compiler : To support high-level languages, programmers created compilers, which are programs that automatically translate high-level language programs into executable programs.

Const : The keyword const can be prepended to a function's vector or string parameter to prevent the function from modifying the parameter. Programmers commonly make a large vector or string input parameter pass by reference, to gain efficiency, while also making the parameter const, to prevent assignment.

Constructor : C++ has a special class member function, a constructor, called automatically when a variable of that class type is declared, and which can initialize data members. A constructor callable without arguments is a default constructor, like the Restaurant constructor below.

Executable: a program that can be run or executed by a computer.

Object : In programming, an object is a grouping of data (variables) and operations that can be performed on that data (functions).

Parameter : A parameter is a function input specified in a function definition. Ex: A pizza area function might have diameter as an input.

Scope : A declared name is only valid within a region of code known as the name's scope. Ex: A variable userNum declared in main() is only valid within main(), from the declaration to main()'s end.

Vector : A vector is an ordered list of items of a given data type. Each item in a vector is called an element.

Warning : A compiler will sometimes report a warning, which doesn't stop the compiler from creating an executable program but indicates a possible logic error.

Loops:  
Break : A break statement in a loop causes an immediate exit of the loop.

Continue : A continue statement in a loop causes an immediate jump to the loop condition check.

Iterations : Each time through a loop's statements is called an iteration.

Functions: Definitions

A function definition consists of the new function's name and a block of statements. Ex: double CalcPizzaArea() { /\* block of statements \*/ }

Calls:  
By reference :  A pass by reference parameter does not create a local copy of the argument, but rather the parameter refers directly to the argument variable's memory location.

By value : Assigning a normal parameter fails to update the argument's variable, because normal parameters are pass by value, meaning the argument's value is copied into a local variable for the parameter.

Files:  
Reading from

Writing to fstreams

Classes: Public/private

Public: A class' public member functions indicate all operations a class user can perform on the object.

private: A class' public member functions indicate all operations a class user can perform on the object.

Class functions Friends  
this -> : Within a member function, the implicitly-passed object pointer is accessible via the name this. In particular, a member can be accessed as this->member. The -> is the member access operator for a pointer, similar to the "." operator for non-pointers.

setters/getters

 mutator / accessor

functions: a mutator for setting the value, and an accessor for getting the value, known as a setter and getter function, respectively, and typically with names starting with set or get.

constructor : C++ has a special class member function, a constructor, called automatically when a variable of that class type is declared, and which can initialize data members.

constructor overload : A class creator can overload a constructor by defining multiple constructors differing in parameter types. A constructor declaration can have arguments.

Branches  
Boolean logic

Default parameter: A function can have a default parameter value for the last parameter(s), meaning a call can optionally omit a corresponding argument.

Vectors/Arrays

An array is a special variable having one name, but storing a list of data items, with each item being directly accessible. Some languages use a construct similar to an array called a vector. Each item in an array is known as an element.