

Module 133.0.1.3 :: Prerequisites :: Object Based Programming

Object Based Programming

You should be thoroughly familiar with the content covered in CSC-20 regarding object based programming. You should understand the basics of defining classes in java and instantiation objects. You should have a basic understanding of the difference between classes and objects. You should know how to invoke methods on an object and also how to invoke static methods. You should also have a basic idea of the concept of data hiding and encapsulation and the difference between public and private member fields.

Expected understanding of this material:

- Design and implementation of medium-size programs using object-oriented techniques, data abstraction, and procedural abstraction including proper programming style, program documentation, and testing and debugging techniques.
- The program development process in Java: interpreting, compiling, executing a program, the concept of the virtual machine and the use of a symbolic debugger.
- Classes/objects and one-dimensional arrays of objects.
- Sub-programs and their appropriate use: parameter passing, scope of identifiers, information hiding and the issue of copying objects versus referencing objects.
- Basic sorting and searching algorithms such as insertion sort and binary search. class definitions
- object instantiation
- method invocation
- public vs. private fields.

Reading Material

1. Read Chapters 9-14 of [Think Java](#)

Video Lectures

This topic is too broad to be easily covered in a few videos. However, if you need a refresher, this video Introduction to Object Oriented Programming from [Coding Tech](#) might help to ground your perspective before jumping into the reading .