CompuScholar, Inc.
Alignment to North Carolina BP10
"Computer Programming I" Course Standards (Java Version)

North Carolina Course Details:

Course Name:	Computer Programming I
Primary Cluster:	Business, Finance, and Information Technology
Course Code(s):	BP10
Credit:	1
Grade Level:	9th-12th
State Standards Link:	North Carolina CTE Standards NCCTE.BP10

CompuScholar Course Details:

Course Title:	Java Programming (Abridged)
Course ISBN:	978-0-9887070-4-7
Course Year:	2019

Note 1: Citation(s) listed may represent a subset of the instances where objectives are met throughout the course.

Note 2: Citation(s) for a "Lesson" refer to the "Lesson Text" elements and associated "Activities" within the course, unless otherwise noted. The "Instructional Video" components are supplements designed to introduce or re-enforce the main lesson concepts, and the Lesson Text contains full details.

Course Description

This course is designed to introduce the concepts of programming, application development, and writing software solutions in the Java environment. Emphasis is placed on the software development process, principles of user interface design, and the writing of a complete Java program including obtaining and validating user input, logical decision making and processing, graphics, and useful output.

Course Standards

NCCTE.BP10.01.00 - Understand ethics, security, and the history of computer programming.	CITATION(S)
NCCTE.BP10.01.01 - Understand the evolution of computers and computer programming languages.	Chapter 1, Lessons 1 - 3
NCCTE.BP10.01.02 - Understand numbering systems.	Chapter 17, Lesson 2
NCCTE.BP10.01.03 - Understand ethics and security in the programming process.	Chapter 1, Lessons 4 - 5

NCCTE.BP10.02.00 - Understand the solution development process.	CITATION(S)
NCCTE.BP10.02.01 - Understand the programming process.	Chapters 2, 21 Suppl. Ch. 2, Lesson 1

NCCTE.BP10.02.02 - Understand problem solving tools to design programming solutions.	Chapter 17, Lesson 4 Chapter 21 Suppl. Ch. 2, Lesson 1
NCCTE.BP10.02.03 - Understand proper program documentation, code comments, Use Cases, and Requirements Definition.	Chapter 2, Lesson 2 Suppl. Ch. 2, Lesson 1

NCCTE.BP10.03.00 - Apply procedures to construct Windows forms.	CITATION(S)
NCCTE.BP10.03.01 - Apply controls associated with the Windows form.	Chapter 13
NCCTE.BP10.03.02 - Apply the properties associated with controls.	Chapter 13

NCCTE.BP10.04.00 - Understand variables and naming conventions.	CITATION(S)
NCCTE.BP10.04.01 - Understand variables and data types.	Chapter 4
NCCTE.BP10.04.02 - Understand object naming and naming conventions and standards.	Chapter 4, Lesson 2 Chapter 10, Lesson 2

NCCTE.BP10.05.00 - Apply programming and conditional logic.	CITATION(S)
NCCTE.BP10.05.01 - Understand different types of programming errors.	Chapter 9, Lesson 1
NCCTE.BP10.05.02 - Understand breakpoint, watch window, and try and catch to find errors.	Chapter 9, Lessons 3 - 4
NCCTE.BP10.05.03 - Apply operators and Boolean expressions.	Chapter 7, Lessons 1 - 2
NCCTE.BP10.05.04 - Apply decision-making structures.	Chapter 7, Lessons 2 - 3
NCCTE.BP10.05.05 - Apply looping statements.	Chapter 5, Lessons 4 - 5

NCCTE.BP10.06.00 - Apply tools and procedures to obtain and validate user input.	CITATION(S)
NCCTE.BP10.06.01 - Apply tools to develop menus, List Box, and Combo Box objects.	Chapter 13
NCCTE.BP10.06.02 - Apply tools to develop message, input, and dialog boxes.	Chapter 12, Lessons 2 - 3
NCCTE.BP10.06.03 - Apply procedures for validation of user input.	Chapter 6, Lesson 3

NCCTE.BP10.07.00 - Apply advanced logic.	CITATION(S)
NCCTE.BP10.07.01 - Apply sub procedures/methods and user defined functions.	Chapter 8 Chapter 10, Lesson 2
NCCTE.BP10.07.02 - Apply one-dimensional arrays.	Chapter 14, Lessons 1, 4, 5
NCCTE.BP10.07.03 - Apply built-in Math functions.	Chapter 17, Lessons 1, 3
NCCTE.BP10.07.04 - Apply built-in String Methods.	Chapter 5

NCCTE.BP10.08.00 - Apply procedures to develop graphics applications.	CITATION(S)
NCCTE.BP10.08.01 - Understand coordinate systems.	Chapter 12, Lesson 1 Chapter 20, Lesson 1
NCCTE.BP10.08.02 - Apply procedures to create picture boxes using images.	Chapter 20, Lesson 3
NCCTE.BP10.08.03 - Apply animation and graphic methods in a Windows form.	Chapter 20