A Comparison of C# Programming Exercises

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**Abstract**

C-Sharp, which is developed by Microsoft, is the most popular multipurpose programming language that runs on .NET Framework. It is a widely used language for Windows desktop applications and services, web applications, mobile development, and gaming. In this paper we present a comparative study of programming exercises on C# providing by the City University of Seattle for 2021 Computer Science students. The comparison covers ten programming exercises from each chapter including C# Language and .NET Framework, Variables and Arrays, Numeric Operators and Routines, Methods and Scope, Conditional Structure and Loops, String Manipulation, Date and Time Handling, Object-Oriented Programming, Inheritance, and lastly Generics Types and Class. These programming exercises are compared under the characteristics of analysis, design, implementation and testing. The possible conclusion would be forwarded based on the outcome of each programming exercise, and limitations and challenges will be discussed.

**Keywords:** C#, .NET Framework, Object-Oriented Programming, Programming Exercises, Variable,

Array, Data Type