**Reflective Paper on Rock, Paper, Scissors: A C# Console Application**

Adrian Hunter

Sullivan University

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Dr. Tuan Tran

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The game of rock, paper, scissors has been played by all walks of life for a few hundred years now. The earliest versions of the game were said to begin in Japan during the Han Dynasty (206 BCE – 220 CE). Despite this fact, even early versions of the game may have begun originally in China, then the Japanese adopted the game. The Chinese version of the game was played using the hand signs for the letters A, B, and C; where the rules were A beats B, B beats C, and C beats A. After the Japanese adopted the game, they changed the letter to animals: a slug, a frog, and a snake. The slugs win over the snakes, frogs win over the slugs, and snakes win over the frog. The game went through many variations throughout time, and it may even change again in the future, but I am here to summarize the processes I went through to produce a functioning console application of Rock, Paper, Scissors.

In my first two weeks of creating this console application, my original app that I proposed to Dr. Tran was the card game, War. Up to this point I had already coded a few simple C# programs, so I was confident that I could easily produce that console application when I proposed that idea. Unfortunately, when I went to try and code it, I had a sort of writer’s block. The main issue I dealt with was remembering proper syntax. I would write code that I thought should work, but I would get syntax error after syntax error consistently. The first two weeks of my progress was mainly re-learning C# syntax by watching YouTube refresher videos.

By the time my third week approached working on this project, I realized that I would not be able to produce a functioning card game with the remainder of my time. I quickly emailed Dr. Tran requesting that I lower the difficulty of my project by changing my console application to rock, paper, scissors. He obliged and I was very grateful. I still struggled with syntax errors, but nothing compared to the next constraint I ran into: Visual Studios. Up until this point at the beginning of week three, none of my code ran due to multitude of syntax errors. But when I finally resolved all the syntax issues and attempted to run the code in the Visual Studios compiler, I received an error message. The error message only appeared once and said something along the lines of improper .NET framework settings. After attempting to download the proper software, I attempted to run the code again, but the compiler would just lock up and eventually not run the code. This is when I decided to move the code I created so far to an online compiler called jDoodle.com.

By the end of week three, all I had coded completely was just enough for a user to enter a number 1, 2, or 3 as their selection for rock, paper, or scissors respectively. I was so far behind because I bit off more than I could chew with my original console application idea. It set me back at least a week and a half in terms of progress. However, week four is where I made large amounts of progress. I originally had trouble with giving the player someone (or something) to play against. I looked online for examples of how to create an AI, or NPC (non-playable character) that could make simple random decisions. This is where I learned about the Random(); function. After looking at the examples of how to use this new function, I was very confused, to say the least. It made no sense to me how you could use this function to pick a random number. I spent the rest of week four looking at the general uses of the Random(); function in other programmers’ code online.

Week five is where everything fell into place. I finally understood the Random(); function and what it is used for and it was rather simple. I used it to initialize a variable that I want to be randomized, then I just set a parameter of what numbers are available to be chosen from. After that was figured out, it was a breeze setting up the parameters for the rules of rock, paper, scissors. I tested the game many times to make sure the logic in my code matched to real logic of the game itself. My source code will be attached along with this paper, so I do hope you play and enjoy the game I created!