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AP Java

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Independent Study Tutorial

 For my Independent Study Project, I learned the basics of the programming language C++ and made a simple program to practice what I learned. These are the steps I took (and others can take) in order to get the most out of this process.

**Research C++:**

While learning any new programming language, especially C++, it is most helpful to engage with demo programs and many different segments of code in order to get a good understanding of the language. Along with that, at Minich.com, there is a link to Mr. Minich’s Penn State Berks C++ class homepage that has a YouTube playlist of tutorials, demo programs with videos, and lecture notes as well. That proved to be one of the best resources to use. Also, just typing in C++ tutorials on the Internet and going to videos allows you to explore all different kinds of tutorials and information about C++. Those are the ways to get the main concepts of C++ well understood.

**Starting a New C++ Program:**

Open Microsoft Visual Studio 2010. Then, at the top, go to File 🡪 New 🡪 Project. Give the project any name beginning with a capital letter and select Empty Project. After that, go to Project 🡪 Add New Item and once there, select C++ File. Name it the same name as the Project. Once that is completed, a clean slate for your code appears and then you can begin to write a program in C++. \*This process is shown in the first video on Mr. Minich’s C++ homepage\*

**Running My Program:**

My program was built off of another person’s code of a game. I modified it and added some code to change the game up a bit. Once you run the program, it asks for your name. Then, it tells you the rules. Basically, you are given a random number and color and you must retype that combination from memory. You get one point for the correct combination. Then, you are given another random number and color combination that you must type out along with the previous combination you get. That gives you another one point added to the total. The game gets very tricky because you must memorize more as you progress. That is the main objective of the game. Enjoy!