

Sidlinger Computer Corporation

Memorandum

To: Larry Marek
From: Sidlinger Computer Corporation
Date: 7 June 2019
Re: Broad Lesson Plan for CCC Summer Camp Advanced Coding

Overview:

Attached below is the overview for the Sidlinger Computer Corporation Advanced Coding Summer 2019 Curriculum. The total curriculum has a one-week duration that will be duplicated for each week of advanced coding. The outline is a general sketch of what topics will be covered each day, along with specific goals that will be achieved by the end of each section.

Lesson Plan:

1. Day 1:
 - Team creations and Ice Breakers
 - Introduction to Raspberry Pi
 - Introduction to Python
 - Introduction to circuit prototyping
 - Goal: Blink an LED with a button using GPIO
2. Day 2:
 - Development of Python coding
 - Development of GPIO
 - Development of circuit prototyping
 - Science behind sound and electronics
 - Goal: Build and program a Morse Code Translator
3. Day 3:
 - Introduction to API
 - Introduction to making requests
 - Introduction to data handling
 - Introduction to JSON
 - Goal: Program an ISS coordinate tracker and address locator
4. Day 4:
 - Introduction to file handling
 - Development of input/output using a game
 - Development of Python coding using error handling
 - Reading and writing to text files
 - Goal: Read a file and write to another file using a Python program
5. Day 5:
 - Introduction to web servers
 - Introduction to html programming
 - Introduction to web coding and server creation
 - Introduction to Minecraft server hosting
 - Goal: Build and run a local web server and a local Minecraft server