**Presentation Notes:**

1.   What are the four functions of a computer program listed on the lesson slide?

a.   A Computer Program controls the hardware of a computer system.

b.   It makes decisions about how Input Devices affect Output Devices

c.   Changing the program changes the function of the computer hardware

d.   Computer Programs control more than just traditional computer systems.

2.   Provide an example of a computer input that is not listed on the lesson slide.

An example of an input device is a microphone.

3.   Provide an example of a computer output that is not listed on the lesson slide.

An example of an output device are speakers.

4.   Provide another example of how a computer input affects a computer output that is not listed on the lesson slide.

If you use a microphone to input something in your computer, speakers will be used to output the sound.

5.   Provide an example of how changing the program changes how computer inputs affect computer outputs that is not listed on the lesson slide.

Changing from an editing software to a YouTube video.

6.   What are some examples of devices that are not traditional computers but that make use of computer programs?

a.   Industrial Robots

b.   Cars (not just self driving)

c.   Kitchen Appliances

d.   Internet / Social Media Bots

7.   Provide another example of a device that makes use of a computer program that is not listed on the lesson slide.

Phones and bots

8.   What is another term for a computer program?

Computer software

9.   What are some ways that computer software is different from computer hardware?

The software uses logic which is flexible and easy to change but hardware is physical and hard to change.

10.   How are computer programs written?

They are written in plain text, using a keyboard and editor. They are also written on computer programs such as Python, Java, etc.

11.   Why are computer programs composed of many lines of computer code?

Computer programs have many lines of code because each line is a simple command. If there are multiple lines there will also have multiple command.

12.   List some examples of different computer languages.

a.   C / C+ for Engineering

b.   Java for Web Application Development

c.   COBOL / SQL for Business

d.   Python

13.   List some of the benefits of the Python computer language.

a.   Is a "professional" language with a large user base

b.   Is good for prototyping small programs

c.   It is a good beginner language

d.   It is the language of choice for 1st year university courses

14.   Once you finish this course, how could you answer someone who asks you "Do you know how to program in Java?"

Yes, I know how to program and could pick up Python in a short period of time.

15.   Could you use Microsoft Word to write a computer program? Explain.

Yes, but not recommended because it isn’t as efficient and useful. Python would be better because it is more computer programmed based.

16.   What does IDE stand for?

An Integrated Development Environment (IDE) provides extra supports and tools designed specifically for creating and maintaining computer programs

17.   What are some features of an Integrated Development Environment?

a.   Colour coding of keywords

b.   Indentation and completion control

c.   Error Checking

d.   Runtime support and debugging

e.

18.   What are some factors to consider when choosing an Integrated Development Environment?

a.   How well does it support your chosen language?

b.   Is it web based or a download install?

c.

19.   What is the name of the IDE that we will be using to create our Python programs?

–      The IDE that we will be using is Repl.it ([www.repl.it](http://www.repl.it/))

20.   What version of Python will we be using?

The version of Python we will be using is Python 3.7.3

21.   Draw a sketch of the Repl interface showing the three work areas (panels)

a.       Label each panel

b.       Summarize the function of each panel

1.   File Chooser

–      Each Python may have many files (You can add files and folders)

–      "main.py" is your main program file

2.   Program Editor

–      Type and edit your program script

–      Click the "Run  > / Stop" button to control your program

3.   Console Input / Output

–      Displays the output and results of your program

–      Where you type to answer responses to input prompts from your program

–      Can also type and run short programs here (like a calculator)

**Student Questions:**

1.   Create an account for yourself at www.repl.it

a.       Review the "Terms of Service" to verify that you can legally use this service.

b.       Follow the previous discussed guidelines regarding use of personal information

2.   List the part of the "Terms of Service"  that verifies that you can legally use this service.

Some terms and services is giving out your personal information such as your identification, contact, details, etc. Your are accountable for all changes under your account, you cannot copy, publish, reproduce, trade or resell is strictly prohibited.

3.   Explain some of the rights that you give away to Repl.it regarding content you create using their service?

Repl.it privacy policy states that they will process your personal identification with your consent. They also collect your IP address

4.   Create a new Python repl and call it "Hello World".

5.   Copy and paste the following program into the program panel (white area)

userName = input("Please type your name: ");

print("Hello", userName, "welcome to Python!")

6.   Run the program to see what it does. (If necessary, fix the quotation marks so it runs properly.)

a.       Explain how the program works.

The program works when you use syntax and proper program/coding skills.

b.       Explain how you fixed the program (if necessary)

7.   Try using the console pane (black area) to perform some simple calculations and run some one-line programs.

a.       Summarize some of your calculations.

8.   Try using the file management pane to add some files and folders to your repl.

a.       Summarize some of your additions.