**Presentation Notes:**

1. What are the two main parts of a computer architecture?
   1. CPU
   2. Ram Memory
2. Google “basic Python commands” and list four commands.
   1. Print()
   2. While;
   3. If;
   4. Than;
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. There isn’t a quotation marks at the end of the string
   2. The p is capitalized in print()
4. Summarize the cause and effect of a *syntax error*.

The cause of Syntax errors are the misspelling of commands or using commands in the wrong location and if it is an IDE it will tell you where and what the error is.

1. Explain what happens if you use a variable before it is defined.

It will give you an error because the CPU reads python from top to bottom so it will not know that there is a variable.

1. Summarize the cause and effect of a *run-time* error.

The cause of a run time error is that if you define a variable after you do a command involving that variable and the effect will be that you get a run time error and your program wont run.

1. Write a Python statement to assign the value of 24 to the variable class Size.

class\_size = 24

Print(class\_size)

1. Create a valid Python variable name to store a student exam mark and that follows the “mixedCase” style guidelines.

student\_Mark = 98

1. Create a valid Python variable name to store a student exam mark and that DOES NOT follow the “mixedCase” style guidelines.

exam\_Marks = 98

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. aVariable = 2
   2. myAnswer = 64 - aVariable

1. Write a mathematical expression that uses the variable aNumber and assigns a value of 77 to the variable myAnswer.
   1. aNumber = 67
   2. myAnswer = 10 + aNumber
2. Change the program on the last slide of the presentation to calculate and print out the cube (power 3) of an input number.

**Student Questions:**

A resource for Python Style guidelines mal be found here:

[https://www.python.org/dev/peps/pep-0008/#naming-conventions](https://www.python.org/dev/peps/pep-0008/)

1. Identify which of the following are valid Python variable names (even if they do not follow the mixedCase style guidelines).

|  |  |
| --- | --- |
|  | True / False |
| StudentNumber | True |
| 5thRow | False |
| else | False |
| break | False |
| Row\_5 | True |

1. Identify which of the following are valid Python variable names that also follow the mixedCase style guidelines.

|  |  |
| --- | --- |
|  | True / False |
| StudentNumber | False |
| studentNumber | True |
| row | True |
| row5 | True |
| Row5 | False |

1. Summarize the difference between a *syntax error* and a *run-time* error.

A syntax error is a typo error of a command or variables but a run time error is an error of not defining a variable or defining a variable after a command not before.

1. Write an expression that calculates the cost of 6 slices of pizza at 2 dollars a slice assigns the result to a variable in RAM memory. Use proper style and meaningful names for your variables.

numberOfSlices = 6

costOfSlices = 2

totalCost = numberOfSlices \* costOfSlices

print(totalCost)

1. Write an expression that calculates the cost of a variable number slices of pizza at 2 dollars a slice assigns the result to a variable in RAM memory. Use proper style and meaningful names for your variables.

numberOfSlices = 6

costOfSlices = 2

totalCost = numberOfSlices \* costOfSlices

print(totalCost)

1. Write a program that gets the number of slices from the console input, uses your expression in #5 above, and prints out the result to the console output. Use proper style and meaningful names for your variables and meaningful messages for your input and print commands.

numberOfSlices = int(input())

costOfSlices = 2

totalCost = numberOfSlices \* costOfSlices

print(totalCost)

1. Extend your program in #6 above to also calculate and print out the number of boxes of pizza if each box contains 8 slices.

numberOfSlices = int(input())

numberOfBoxes = numberOfSlices \* 8

costOfSlices = 2

totalCost = numberOfSlices / costOfSlices

print(totalCost)