**Presentation Notes:**

1. What are the two main parts of a computer architecture?
   1. CPU Chip
   2. RAM Memory
2. Google “basic Python commands” and list four commands.
   1. print ()
   2. del;
   3. return;
   4. try;
3. Identify the two *syntax errors* in the following command: **Print ("This command prints messages)**
   1. Print does not have a capital p
   2. There isn’t any end quotation
4. Summarize the cause and effect of a *syntax error*.

Frequent errors start from misspelling, and missing grammar in the python language, this confuses the command and since the Python language is very sensitive, the output box will report a syntax error.

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

You will receive a syntax error since the variable’s value is not stated, and the program will not be effectively run.

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

Utilizing a variable derived of a value will force a Run-time error.

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

classSize = 24

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

examMark = 49

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

Exammark = 49

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. myAnswer = 30 \* 2 + 2

1. Write a mathematical expression that uses the variable aNumber and assigns a value of 77 to the variable myAnswer.
   1. aNumber = 7
   2. myAnswer = 70 + 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.

**value = int(input("Enter a number:"))**

**value2 = value \*\* 3**

**print("The cube of %d is %d" % (value,value2))**

**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 | T |
| 5thRow | F |
| else | F |
| break | F |
| Row\_5 | T |

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

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

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

The difference between a syntax error and a run-time error is that in a run-time, the code is correct, however; the value of the variable has not been defined or is written post-liminary to the use of the variable. In a syntax error, there is a conflict between the code, this can range from common spelling mistakes, to missing parentheses or quotation marks.

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 = float (6)

costOfSlices = float (2)

totalCostOfPizza = numberOfSlices \* costOfSlices

print (totalCostOfPizza)

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 = float (8)

costOfSlices = float (2)

totalCostOfPizza = numberOfSlices \* costOfSlices

print (totalCostOfPizza)

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 = float (2)

totalCostOfPizza = numberOfSlices \* costOfSlices

print (totalCostOfPizza)

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())

costOfSlices = float (2)

totalCostOfPizza = numberOfSlices \* costOfSlices

boxesOfPizza = numberOfSlices / 8

print (totalCostOfPizza)

print (boxesOfPizza)