**Presentation Notes:**

1. What are the two main parts of a computer architecture?
   1. RAM memory
   2. CPU processor
2. Google “basic Python commands” and list four commands.
   1. print
   2. if
   3. elif
   4. else
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. No quotations at end of command before end of bracket
   2. P in print should not be capitalized
4. Summarize the cause and effect of a *syntax error*.

The cause of a syntax error can occur when the structure and rules of python are written with errors, making the program unusable giving you an error.

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

If a variable is used before it is defined it will cause a Run-Time Program error.

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

The cause of a Run Time error is when a variable is run before it is defined giving you an error stating the variable used is not defined as anything.

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

classSize = 24

print("The number of students in the class is:",classSize)

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

* studentExamMark

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

* percentmark

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. myAnswer = 31 \* 2

1. Write a mathematical expression that uses the variable aNumber and assigns a value of 77 to the variable myAnswer.
   1. aNumber = 77
   2. myAnswer = 11 \* 7
2. Change the program on the last slide of the presentation to calculate and print out the cube (power 3) of an input number.
3. value = int(input("Enter a number:"))
4. value2 = value \*\* 3
5. print("The square 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 | True |
| 5thRow | True |
| else | false |
| break | false |
| Row\_5 | false |

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 | false |
| row5 | true |
| Row5 | false |

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

* Syntax errors can only occur when the formatting of command is written incorrectly (Print < print) and a Run Time error only occurs when a program is run before a variable is defined making the program not run.

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.

pizzaPrice = 2

numberPizzas = 6

myAnswer = pizzaPrice \* numberPizzas

print("the price for 6 pizzas is", myAnswer)

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.

pizzaPrice = 2

numberPizzas = input("how many pizza slices do you want?:")

myAnswer = pizzaPrice \* numberPizzas

print(myAnswer)

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.

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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.

pizzaPrice = 2

numberPizzas = input("how many pizza slices do you want?:")

myAnswer = pizzaPrice \* numberPizzas

print(myAnswer)