**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. input
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. The p is capital
   2. There isn’t a quotation mark at the end
4. Summarize the cause and effect of a *syntax error*.

* Syntax Errors are errors created because the statement doesn’t follow the structure and rules of a language. Syntax errors prevent a program from running. Most Syntax Errorsare highlighted in the program editor window

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

* You get an error code. The run-time error

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

* You used a variable before it’s defined which prevents your program from running and it displeases red for 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

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

* exammark

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. myAnswer = 8 \* 8 - 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 = aNumber + 10 \* 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.

**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 |  |
| break |  |
| 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 |  |
| row5 |  |
| Row5 |  |

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

* Syntax Errors are errors created because the statement doesn’t follow the structure and rules of a language and run-time errors is an error created when you don’t define a variable before using it.

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.**

* myAnswer = 6 \* 2

print("The answer is:",myAnswer)

* pizzaCost = 6 \* 2

print("The answer is:",pizzaCost)

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.**

Slice = (number slices you want)

Print (slice \* 2)

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.**

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

value2 = value \* 2

print("The total cost %d slices is %d dollars" % (value,value2))

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.**

boxesOfPizza = int (input ("How many boxes of pizza would you like? "))

pizzaSlices = 2\*8

totalCost = pizzaSlices \* boxesOfPizza

print ("That will cost",totalCost)