**Presentation Notes:**

1. What are the two main parts of a computer architecture?
   1. Ram Memory-To store some data for use in the future and To read some data that was previously stored
   2. CPU Processor-executes simple instructions and can use the memory to store info, etc
2. Google “basic Python commands” and list four commands
   1. None
   2. True
   3. del
   4. return
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. SyntaxError: EOL while scanning string literal
   2. In Print the capital P has to be lowercase and we need to add a quotation mark at the end
4. Summarize the cause and effect of a *syntax error*.

The cause of a syntax error is that there is a typo within the code and the effect is the syntax error to appear on the black side

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

In the RAM memory there is memory for the variable. If you use a variable which is not defined what happens is that you get a name error or a run time error as the variable is not defined

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

The cause of a run time error is when a variable is not defined. The effect is the program will not run and red letters will appear on the black side

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.

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

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1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. myAnswer = 2 + 10 \*6
2. myAnswer = 2 + 10 \* 6
3. print(" The anwer is ",myAnswer)

1. Write a mathematical expression that uses the variable aNumber and assigns a value of 77 to the variable myAnswer.

aNumber = 5

myAnswer = aNumber + 8 \* 9

print("The answer is:",myAnswer)

1. Change the program on the last slide of the presentation to calculate and print out the cube (power 3) of an input number.
2. value = int(input("Enter a number:"))
3. value2 = value \*\* 3
4. 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 | 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 when there is a typing error within the program and a runtime error is when the variable is not defined. From getting either of these errors you will see the errors in red text ion the black box.

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.

slices = 6 \* 2

print(slices)

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.

The amount of slices will what the person puts in for the input. Then the cost will be the same always at 2. And then as the amount of slices is the variable the variable will always be multiplied by 2 so we will always get the cost with any number of slices.

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.

slices = int(input("Enter an amount of slices:"))

cost = slices \* 2

print("The cost of %d amount of slices is %d" % (slices,cost))

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.

slices = int(input("Enter an amount of boxes:"))

cost = slices \* 16

print("The cost of %d boxes is %d dollars" % (slices,cost))