**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. while
   2. return
   3. print
   4. if
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. Only one quotation mark
   2. Capital P in print
4. Summarize the cause and effect of a *syntax error*.

The cause of syntax error is that maybe someone is typing too fast and they accidently type the wrong spelling or they don’t remember the correct spelling of the command. The effect of this is that you will get an error in the console and it will tell you which line the error is on.

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

You get a run-time program error in the console.

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

The cause of a run-time error is if you haven’t defined a variable before it is used and the effect is that you get an error message in your console.

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.

studentExamMark = 77

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

STUDENTexamMARK = 99

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.
   1. myAnswer = 60 + 2

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

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 | 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 happens when you have a typo in your code and a run time error happens when you use a variable that you haven’t defined yet.

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.

costPerSlice = 2

total = costPerSlice \* 6

print ("the cost of 6 pizza slices is " ,total)

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.

costPerSlice = 2

pizzaSlices = 6

total = costPerSlice \* pizzaSlices

print ("the cost for ", pizzaSlices, "pizza slices is ", total)

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.

pizzaSlices = int(input("Enter the number of pizza slices: "))

total = pizzaSlices \* 2

print(pizzaSlices, " pizza slices will cost ", total)

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.

pizzaSlices = int(input("Enter the number of pizza slices: "))

totalBoxes = pizzaSlices / 8

totalCost = pizzaSlices \* 2

print(pizzaSlices, " pizza slices will cost ", totalCost, " dollars")

print("you have ", totalBoxes, " boxes of pizza")