**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 - Prints text using the command “print ‘sans’”
   2. variable
   3. input
   4. if
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. captial P in print
   2. no quotation in the text
4. Summarize the cause and effect of a *syntax error*.

- Incorrectly typed text

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

* Python does not know how to to run the command correctly

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

* No variable has been placed for the command causing it not to work

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

numberOfStudents = 24

print ('class size =' ,numberOfStudents)

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

examMark = "99/100"

print ('exam mark:' ,examMark)

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

exammark = "99/100"

print ('exam mark:' ,exammark)

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 = 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.

**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.

* Syntax is an error with typing the command
* Run time is an error with the variables

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.

pizzaSlices = 6

costPerSlice = 2

cost = 6\*2

print ("your pizza comes down to " ,pizzaSlices)

print ("x")

print (costPerSlice)

print ("so your total is:" ,cost)

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.

pizzaSlices = 200

costPerSlice = 2

cost = pizzaSlices \* costPerSlice

print ("your pizza comes down to " ,pizzaSlices)

print ("x")

print (costPerSlice)

print ("so your total is:" ,cost)

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 = 200

costPerSlice = 2

cost = pizzaSlices \* costPerSlice

print ("your pizza comes down to " ,pizzaSlices)

print ("x")

print (costPerSlice)

print ("so your total is:" ,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.

pizzaSlices = 20

costPerSlice = 2

cost = pizzaSlices \* costPerSlice

print ("your pizza comes down to " ,pizzaSlices)

print ("x")

print (costPerSlice)

print ("so your total is:" ,cost)

box = pizzaSlices/8

print ("you will have about:" ,box)

print ("boxes")