**Presentation Notes:**

1. What are the two main parts of a computer architecture?
   1. CPU
   2. RAM
2. Google “basic Python commands” and list four commands.
   1. Print
   2. Input
   3. Return
   4. List
3. Identify the two *syntax errors* in the following command: **Print("This command prints messages)**
   1. Print has a capital P. Should be lower case
   2. Missing Quotation
4. Summarize the cause and effect of a *syntax error*.

* Typos, missing quotations, brackets, etc. are frequent cause for errors.
* Syntax errors prevent programs from running.

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

Using an undefined variable result in a Run-Time program error

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

Run-time errors are caused by undefined variables. And it will cause the program to not work until the error is fixed.

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.

examMarksICS

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

exammarksics

1. Write a mathematical expression that assigns a value of 62 to the variable myAnswer.

myAnswer = 31 + 31

print("The answer is:",myAnswer)

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

aNumber = 7

myAnswer = aNumber + 70

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.

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 | T |
| 5thRow | F |
| else | T |
| break | T |
| Row\_5 | T |

1. Identify which of the following are valid Python variable names that also follow the mixedCase style guidelines.

|  |  |
| --- | --- |
|  | True / False |
| StudentNumber | F |
| studentNumber | T |
| row | T |
| row5 | T |
| Row5 | F |

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

Syntax error is when you type something incorrectly, run-time error is when you don’t assign a variable.

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.

numberofSlices = 6

CostofSlices = 2

totalCostofSixSlices = 6\*2

print (totalCostofSixSlices)

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.

numberofSlices = 6

CostofSlices = 2

totalCostofSixSlices = 6\*2

print (totalCostofSixSlices)

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.

amountOfSlices = int(input("numberofSlices:"))

costofPizza = amountOfSlices \*2

print("The total cost of pizza %d is %d" % (amountOfSlices,costofPizza))

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.

amountOfSlices = int(input("numberofSlices:"))

costofPizza = amountOfSlices \*2

boxesOfpizza = amountOfSlices / 8

print("The total cost of pizza %d is %d" % (amountOfSlices,costofPizza))

print(boxesOfpizza)