

Exam 01 Review

1. DIKW Pyramid
 - a. Number of students in a class -> Data
 - b. Number of student in all sections of course -> Information
 - c. Number of enrollments this fall v. last fall -> Knowledge
 - d. We understand the growth rate of ISCS, the ACOB, and the University overall -> Wisdom
2. Sequence of Data Warehousing
 - a. Extract
 - b. Transform
 - c. Load
3. Sources of Data for Warehousing
 - a. Processes
 - b. Databases
 - c. Industry Data
 - d. Financials
 - e. Academic research seldom yields data points immediately applicable to a business
4. Filling in Missing Data (sources)
 - a. Statistical means
 - b. Demographic means for demo. Traits
 - c. Industry Data
 - d. Neutral Values
 - e. Values derived from calculations using known values
5. Value to Business of Data
 - a. Business Intelligence
6. Data Warehousing Costs
 - a. The transformation step generally requires the most time, effort, and processing
7. Data Types in Python
 - a. int
 - b. float
 - c. complex
 - d. str
 - e. bool
8. Basic functions Of a computing system
9. Basic programming logic structures
10. Declare & Assign Value to a Variable
 - a. `myCount = 10`
11. Output to Console
 - a. `print(junk)`
12. Output using String Substitution
 - a. `print("Hello, %s!" % myName)`
13. Range Function
 - a. `range(6)`
 - b. `range(0, 6)`

14. Scoping of logic structures in Python

15. Selection Structures

a. `if(present):`

`print("Hello there!")`

b. NOTE: `True` is the named constant boolean value of "true"

c. NOTE: Must use "double equals" for the evaluation operation

16. Simple Math in Python

a. `answer = 6 * 7`

b. `answer = 7 * 6`

17. Write a short Python script...

a. `variableName = int(input("Some prompt "))`

`if(variableName >= 0):`

`print("That number is positive.")`

`else:`

`print("That number is negative.")`

18. Tuples:

a. Parentheses

b. Ordered

c. Immutable – both structures and elements

d. Indexed

e. Heterogeneous

f. Duplicates Allowed

19. Sets:

a. "Curly" braces

b. Unordered

c. Immutable – elements cannot be changed, but elements may be added or removed

d. Unindexed

e. Heterogeneous

f. Duplicates permitted but NOT advisable

20. Dictionaries

a. Parentheses

b. Ordered

c. Mutable – pairs may be added or removed; values may be modified; keys may NOT be changed

d. Unindexed

e. Heterogeneous

f. Keys must be Unique

g. Values may be duplicated

21. **PROTECT THE DATA**