Tutorial 03: Data Models

Section 01: Select the most appropriate answer.

1. When building a database, the data dealing with an entity is modelled as a:

a) Attribute

b) Class

c) Object

d) Table

2. In a hierarchical model, records are organized as,

a) Graph

b) List

c) Links

d) Tree

3. Software that defines a database, stores the data, supports a query language, produces reports and creates data entry screens is a:

a) Data dictionary

b) Decision Support System

c) Database Management System (DBMS)

d) Relational Database

4. The term _____ is used to refer to the column.

a) Attribute

b) Field

c) Instance

d) Tuple

5. The term attribute refers to a _____ of a table.

a) Record

b) Column

c) Tuple

d) Key

Section 02:

C_NAME	C_PHONE	C_ADDRESS	C_ZIP	A_NAME	A_PHONE	TP	AMT	REN
Alfred A. Ramas	615-844-2573	218 Fork Rd., Babs, TN	36123	Leah F. Hahn	615-882-1244	T1	100.00	05-Apr-2010
Leona K. Dunne	713-894-1238	Box 12A, Fox, KY	25246	Alex B. Alby	713-228-1249	T1	250.00	16-Jun-2010
Kathy W. Smith	615-894-2285	125 Oak Ln, Babs, TN	36123	Leah F. Hahn	615-882-2144	S2	150.00	29-Jan-2011
Paul F. Olowski	615-894-2180	217 Lee Ln., Babs, TN	36123	Leah F. Hahn	615-882-1244	S1	300.00	14-Oct-2010
Myron Orlando	615-222-1672	Box 111, New, TN	36155	Alex B. Alby	713-228-1249	T1	100.00	28-Dec-2010
Amy B. O'Brian	713-442-3381	387 Troll Dr., Fox, KY	25246	John T. Okon	615-123-5589	T2	850.00	22-Sep-2010
James G. Brown	615-297-1228	21 Tye Rd., Nash, TN	37118	Leah F. Hahn	615-882-1244	S1	120.00	25-Mar-2011
George Williams	615-290-2556	155 Maple, Nash, TN	37119	John T. Okon	615-123-5589	S1	250.00	17-Jul-2010
Anne G. Farriss	713-382-7185	2119 Elm, Crew, KY	25432	Alex B. Alby	713-228-1249	T2	100.00	03-Dec-2010
Olette K. Smith	615-297-3809	2782 Main, Nash, TN	37118	John T. Okon	615-123-5589	S2	500.00	14-Mar-2011

C_NAME = Customer name
C_PHONE = Customer phone
C_ADDRESS = Customer address
C_ZIP = Customer zip code

A_NAME = Agent name
A_PHONE = Agent phone
TP = Insurance type
AMT = Insurance policy amount, in thousands of $
REN = Insurance renewal date

1) How many records does the file contain? How many fields are there per record?

2) What problem would you encounter if you wanted to produce a listing by city? How would you solve this problem by altering the file structure?

3) If you wanted to produce a listing of the file contents by customer last name, how would you alter the file structure?

4) What data redundancies do you detect? How could those redundancies lead to anomalies?