

ITC6000 – Assignment 1

Please answer the following questions:

Question- 1

Use the table in the data file below to answer these questions regarding file structure:

1. How many records does this file contain?
2. How many fields are there per record?
3. What problem would you encounter if you tried to create a listing by last name?
4. What are the field names?
5. What other problems do you see?

Data File

File Structure

First	Last Name	ID	Hours	GrossPay	Withholding	NetPay	PayDate
Roger	McHaney	1	38.5	\$561.56	\$112.31	\$449.25	10/23/2000
Roger	McHaney	1	38.5	\$561.56	\$112.31	\$449.25	1/17/2000
Telly	O'Grady	2	30	\$489.06	\$97.81	\$391.25	3/1/2000
Telly	O'Grady	2	30	\$489.06	\$97.81	\$391.25	2/22/2000
Telly	O'Grady	2	20	\$326.04	\$65.21	\$260.83	2/28/2000
Telly	O'Grady	2	20	\$326.04	\$65.21	\$260.83	3/6/2000
Telly	O'Grady	2	44.5	\$725.44	\$145.09	\$580.35	1/21/2000
Telly	O'Grady	2	44.5	\$725.44	\$145.09	\$580.35	1/17/1998
Grant	Brikestein	3	18	\$408.60	\$81.72	\$326.88	10/23/2000
Grant	Brikestein	3	18	\$408.60	\$81.72	\$326.88	1/17/2000
Alarry	Abu	4	40	\$728.80	\$145.76	\$583.04	1/17/2000
Betty	Marygrade	5	35	\$792.40	\$158.48	\$633.92	1/17/2000
Samuel	Timod	6	40	\$927.20	\$185.44	\$741.76	1/17/2000

Question- 2

Answer the following two questions in paragraph form:

1. A database system is made up of five major parts. Identify these parts. Provide specifics of what make up these components.
2. A DBMS provides at least nine functions. Identify these functions and provide a brief explanation of each

Question – 3

A conceptual model provides a bird's-eye view of a database. Conceptual models are derived from the business rules that make up an application. From the following business rules, create a conceptual model. First, identify the entities involved in the problem, and then determine the relationships that exist between entities. Finally, draw a conceptual model.

Business Rules:

- An author writes books.
- A book is written by one or more authors.
- A book has one subject.
- A subject has at least 20 books.
- A book is published in a year