# **Tasks**

1. **(1 each)** A university wants to recruit new students, so it puts up posters on many high school campuses soliciting letters from students. It receives many letters in response. These letters generally contain the student’s name, address, city, state and zip code. Some also contain other information such as the student’s high school, current grade level, SAT scores and grade point average. When received the letters were placed in a filing cabinet.  
   1. Is this a database? If so, why? If not, why not?  
      Yes, it is only when they organize the letters by zip code and name which can be composite key then make them can be accessed and altered. Doing this data becomes be organized and structured data.   
      Also, because one student has multiple attributes, and these letters can be a collection of data.
   2. If the university staff wants to find a student’s letter, could they do so easily?  
      If all data has zip code and name and they organized them by zip code and name, they could do it easily by using zip code and name.
   3. If the university staff wants to sort the letters by state and city, could they do so easily?  
      If all data has state and city and they organized them by state and city, they could do it easily.

1. **(1 mark each)** Realizing the error of its ways, the university now includes tear-off cards on the posters containing blanks for the student to fill in the following information:

* Last name
* First name
* Street address
* City
* State
* Zip
* Phone
* High School
* Current grade level
* SAT scores
* Grade point average

Again, the university receives many cards in response, all of which it stores in a card filing box.

* 1. Is this a database? If so, why? If not, why not?  
     Yes, it is. The data don’t change much from the one in task1, so because of same reason they are a database. At this time using phone assuming all data has it, they can organize and structure data.
  2. If the university staff wants to find a student’s card, could they do so easily?  
     If all the cards have phone attribute and they organized them by phone, they could find a student’s card by phone.
  3. If the university staff wants to sort the cards by state and city, could they do so easily?   
     If all the cards have state and city attributes and they organized them by them, they could sort them.

3. (**7 marks, 1 mark each**) Consider the following tables

**Item**

|  |  |  |
| --- | --- | --- |
| **Item Number** | **Item Description** | **Price** |
| 123 | Pontoon Cover | $100.00 |
| 124 | Potato Peeler | $5.00 |
| 125 | Pimento Polisher | $55.00 |
| 126 | Pig Preener | $25.00 |
| 127 | Pain Preventer | $7.50 |
| 128 | Pretty Parrot | $87.50 |

**Order**

|  |  |  |
| --- | --- | --- |
| **Order Number** | **Item Number** | **Quantity** |
| 1234 | 123 | 1 |
| 1235 | 126 | 12 |
| 1236 | 128 | 7 |
| 1237 | 124 | 65 |
| 1238 | 123 | 2 |
| 1239 | 128 | 3 |

1. Identify the primary keys of both tables.  
   [Item] Item Number  
   [Order] Order Number
2. Are the tables related?  
   Yes
3. If so, what is the nature of the relation (1:M, 1:1, or M:M)?  
   1:M
4. What is the one table?  
   Order
5. What is the many table?  
   Item
6. What is the matching column or set of columns?  
   [Item] Item Number  
   [Order] Item Number
7. Which column or set of columns is the foreign key?  
   [Order] Item Number

**Submission**

Record your answers into a Word Document and upload the file to this assignment