Question 1/task 1:  Think the scenarios through about the application of such rules and properties, then write to be more concise. In relational database systems, the three forms of data integrity are:

* **Entity integrity**

the data must have a field for identity and being unique.

e.g. it should be the only one for ordering system, even the order content are similar, or even are same.

* **Domain Integrity**

the data field should be same data type, and feature.

e.g. the price of order in food ordering system, data field should be same as float.

* **Referential integrity**

the data linkage between multiple data table are necessary for having a foreign key secondary table, or being null.

e.g. the data table of transaction record should have a field that referencing the foreign key for the data table of order record.

Question 2 / task 2:  Think the scenarios through about the application of such rules and properties,, then write to be more concise. the four ACID properties (Atomic, Consistent, Isolated, and Durable) of a database transaction.

* **Atomic:**

Atomicity means all complete, or nothing change for record Create, Update and Delete operation.

e.g. the transaction should be canceled or reversed if the operation fail, for example, not enough value for account.

* **Consistency**

the operation should be execute in sequence, stateful, and the value should be change one after one.

e.g. the

* **Isolation:**

the operation should be separated in different operating commit / change, and reference the instance of value. e.g. the account have multiple value reducing transaction, and the database should have a separate operation for all transaction, and the value should be change in isolated.

* **Durability:**

the system should able read write, and store in a long-state device or memory. e.g. the transaction database should able to read and write after restarting the database program / the entire system.