

1. What is the difference between a view and a table in sql?
A table contains data, a view is more like a virtual table. It could store result of a query and use in another query to form an otherwise very complex query. Also, view could join data in several databases.
2. How does a GROUP BY statement in SQL work?
GROUP BY is used with aggregate function. So that the aggregation function would apply to each group rather than the whole table.
3. What is HTTP and how do HTTP requests work?
HTTP gives users a way to interact with resources all over the world. It use TCP to connect which requires three handshakes between client and server.
4. What are the characteristics of a RESTful API?
The fundamental concept in any RESTful API is the resource. A resource is an object with a type, associated data, relationships to other resources, and a set of methods that operate on it. It is similar to an object instance in an object-oriented programming language, with the important difference that only a few standard methods are defined for the resource (corresponding to the standard HTTP GET, POST, PUT and DELETE methods), while an object instance typically has many methods.
5. Given the two tables 'Birth Info' and 'Astrological Info', what is the result of the following queries in table form.

- a. SELECT name, birth_month, astrological_sign FROM birth_info LEFT JOIN astrological_info ON birth_info.birth_month = astrological_info.month

Name	Birth_month	Astrological_sign
Don	September	Virgo
Meghna	June	Gemini
Aly	January	NULL
Ara	September	Virgo
Kirit	May	NULL

- b. SELECT name, birth_month, astrological sign FROM birth_info OUTER JOIN astrological_info ON birth_info.birth_month = astrological_info.month

Name	Birth_month	Astrological_sign
Don	September	Virgo
Aly	January	Aquarius
Ara	September	Virgo
Kirit	May	Null
Meghna	June	Null

- c. SELECT name, birth_month, astrological sign FROM birth_info INNER JOIN astrological_info ON birth_info.birth_month = astrological_info.month

Name	Birth_month	Astrological_sign
Don	September	Virgo
Aly	January	Aquarius
Ara	September	Virgo

- d. SELECT name, birth_month, astrological sign FROM birth_info RIGHT JOIN astrological_info ON birth_info.birth_month = astrological_info.month

Name	Birth_month	Astrological_sign
Don	September	Virgo
Aly	January	Aquarius
Ara	September	Virgo

6. What do these HTTP response codes mean:

Code	Meaning
200	OK
201	Created
400	Bad request
401	Unauthorized
300	Multiple choice
403	Forbidden
404	Not found
500	Internal server error