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.

1. 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.

1. 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.

1. 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.

1. Given the two tables ‘Birth Info’ and ‘Astrological Info’, what is the result of the following queries in table form.
2. 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 |

1. SELECT name, birth\_month, astrological sign FROM birth\_info OUTER JOIN astrological\_info ON birth\_info.birth\_month = astrological\_info.month

|  |  |  |
| --- | --- | --- |
| Name | Birth\_month | Astrologicacl\_sign |
| Don | September | Virgo |
| Aly | January | Aquarius |
| Ara | September | Virgo |
| Kirit | May | Null |
| Meghna | June | Null |

1. SELECT name, birth\_month, astrological sign FROM birth\_info INNER JOIN astrological\_info ON birth\_info.birth\_month = astrological\_info.month

|  |  |  |
| --- | --- | --- |
| Name | Birth\_month | Astrologicacl\_sign |
| Don | September | Virgo |
| Aly | January | Aquarius |
| Ara | September | Virgo |

1. SELECT name, birth\_month, astrological sign FROM birth\_info RIGHT JOIN astrological\_info ON birth\_info.birth\_month = astrological\_info.month

|  |  |  |
| --- | --- | --- |
| Name | Birth\_month | Astrologicacl\_sign |
| Don | September | Virgo |
| Aly | January | Aquarius |
| Ara | September | Virgo |

1. 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 | Internel server error |