

1: Identify the Primary key for Member relation.

Consider an application for Club membership. There are many clubs at different locations. A club can have many members. Each member belonging to a particular club has a unique identity number. The member id can be same for different clubs. The below relations are created.

Club (ClubId, Name, Location)

Member (ClubId, MemberId, Name, Address)

a.ClubId

b.MemberId

c.Name

d.Address

2: Identify the Foreign key for Club relation.

Consider an application for Club membership. There are many clubs at different locations. A club can have many members. Each member belonging to a particular club has a unique identity number. The member id can be same for different clubs. The below relations are created.

Club (ClubId, Name, Location)

Member (ClubId, MemberId, Name, Address)

a.Foreign key does not exist

b.Foreign key exists

3: Identify the Foreign key for Member relation

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4: Identify the Primary key for Participant relation.

Consider an application for a training institute. Here, a participant can enroll for multiple courses. A course can be enrolled by many participants. Assessments are conducted for courses and marks are awarded to participants. A participant is allowed to take assessment only once for a course. A participant can enroll for a course only if he/she has undertaken the prerequisite course. The below relations are created for the application.

Participant (ParticipantId, Name, Address)

Course (CourseId, Desc, Duration, Prerequisite)

Assessment (Course, Marks, Participant)

a.ParticipantId

b.Name

c.Address

5: Identify the Primary key for Assessment relation.

Consider an application for a training institute. Here, a participant can enroll for multiple courses. A course can be enrolled by many participants. Assessments are conducted for courses and marks are awarded to participants. A participant is allowed to take assessment only once for a course. A participant can enroll for a course only if he/she has undertaken the prerequisite course. The below relations are created for the application.

Participant (ParticipantId, Name, Address)

Course (CourseId, Desc, Duration, Prerequisite)

Assessment (Course, Marks, Participant)

a.Course

b.Marks

c.Participant

6 Identify the Primary key for Course relation.

Consider an application for a training institute. Here, a participant can enroll for multiple courses. A course can be enrolled by many participants. Assessments are conducted for courses and marks are awarded to participants. A participant is allowed to take assessment only once for a course. A participant can enroll for a course only if he/she has undertaken the prerequisite course. The below relations are created for the application.

Participant (ParticipantId, Name, Address)

Course (CourseId, Desc, Duration, Prerequisite)

Assessment (Course, Marks, Participant)

a.CourseId

b.Desc

c.Duration

d.Prerequisite

7 Identify the Foreign key(s) for Participant relation.

Consider an application for a training institute. Here, a participant can enroll for multiple courses. A course can be enrolled by many participants. Assessments are conducted for courses and marks are awarded to participants. A participant is allowed to take assessment only once for a course. A participant can enroll for a course only if he/she has undertaken the prerequisite course. The below relations are created for the application.

Participant (ParticipantId, Name, Address)

Course (CourseId, Desc, Duration, Prerequisite)

Assessment (Course, Marks, Participant)

a.Foreign key does not exist

b.Foreign key exists

8 Identify the Foreign key(s) for Assessment relation.

Consider an application for a training institute. Here, a participant can enroll for multiple courses. A course can be enrolled by many participants. Assessments

are conducted for courses and marks are awarded to participants. A participant is allowed to take assessment only once for a course. A participant can enroll for a course only if he/she has undertaken the prerequisite course. The below relations are created for the application.

Participant (ParticipantId, Name, Address)

Course (CourseId, Desc, Duration, Prerequisite)

Assessment (Course, Marks, Participant)

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b.Foreign key exist

9 Identify the Foreign key(s) for Course relation.

Consider an application for a training institute. Here, a participant can enroll for multiple courses. A course can be enrolled by many participants. Assessments are conducted for courses and marks are awarded to participants. A participant is allowed to take assessment only once for a course. A participant can enroll for a course only if he/she has undertaken the prerequisite course. The below relations are created for the application.

Participant (ParticipantId, Name, Address)

Course (CourseId, Desc, Duration, Prerequisite)

Assessment (Course, Marks, Participant)

a.Foreign key does not exist

b.Foreign key exists

10 As per the business scenario, a 'Customer' relation is identified with 'CustomerId', 'CustomerName', 'City', 'ContactNumber', 'EmailAddress' as its attributes. While CustomerId, and EmailAddress are unique for every customer, the business requirement says that it is not mandatory for a customer to provide his EmailAddress. Which of the following would best suit the above context?

Scenario:

Joho Limited, a firm in the digital media and entertainment domain have gaming zones in different locations. Due to growth in business, the firm decides to use relational database to store customer information, product information, and day to day transactional information.

a CustomerId, EmailAddress can Individually become candidate keys and CustomerId becomes the primary key

b CustomerId, EmailAddress can individually become candidate keys

c This relation doesn't have any candidate key

d CustomerId is the candidate key as well as the primary key

11 One of the requirements read 'games played by the customer are to be tracked with the timestamp'. While trying to implement this requirement, the expert team finds it necessary to have a transaction table that would have the details of the games played by the customer along with the date and time details. The transaction table is named as gaming with attributes TransactionId, CustomerId, GameId, Date, StartingTime, FinishingTime, AmountPayable. Attributes CustomerId and GameId in gaming table can take values that are present for customerid and GameId present in customer and game tables respectively. Which of the following two options would best suit the above context? Select one or more:

Scenario:

Joho Limited, a firm in the digital media and entertainment domain have gaming zones in different locations. Due to growth in business, the firm decides to use relational database to store customer information, product information, and day to day transactional information.

a CustomerId and GameId present in gaming table can take duplicate values.

b CustomerId in the Customer table references the CustomerId in the gaming table and the gameId in the Game table references GameId in the gaming table

c CustomerId and GameId are foreign keys present in child table gaming, referring to CustomerId and GameId, the primary keys present in parent tables, Customer and Game respectively

d CustomerId and GameId present in gaming table cannot take null values and duplicate values

12 “A specific requirement requires, an attribute in the Game table has to refer to the GameId attribute present in the same table. Such a reference would not be possible and it is decided that the requirement is unfeasible.” Choose whether the above decision of the requirement is True or False with the correct reason.

Scenario:

Joho Limited, a firm in the digital media and entertainment domain have gaming zones in different locations. Due to growth in business, the firm decides to use relational database to store customer information, product information, and day to day transactional information.

- a True. An attribute in a table/relation can reference another attribute in the same table/relation
- b False. An attribute in a table/relation can reference another attribute in the same table/relation and this is called Composite Foreign Key
- c True. An attribute in a table/relation cannot reference another attribute in the same table/relation
- d False. An attribute in a table/relation can reference another attribute in the same table/relation and this is called Self Referencing Foreign Key

13 One of the requirements reads ‘customer can walk into a gaming zone and play any game that fascinates him and obviously a game would also be played by different customers’. What kind of a relationship exists between Customer and Game?

Joho Limited, a firm in the digital media and entertainment domain have gaming zones in different locations. Due to growth in business, the firm decides to use relational database to store customer information, product information, and day to day transactional information.

- a One to Many relationship
- b One to One relationship
- c Many to Many relationship
- d Many to One relationship

14. Character data can be stored as

- a) Fixed length string
- b) Variable length string
- c) Either Fixed or Variable length string
- d) None of the mentioned

15. Which declaration represents that “character data will consume the same number of bytes as declared and is right padded”?

- a) Char
- b) Varchar
- c) Both Char and Varchar
- d) None of the mentioned

16. Which declaration doesn't use the same number of bytes and consumption of bytes depends on the input data?

- a) Varchar
- b) Char
- c) Both Varchar and Char
- d) None of the mentioned

17. In oracle database variable length column is declared by

- a) Varchar
- b) Varchar 3
- c) Varchar2
- d) None of the mentioned

18. Select the code which produces this table

name	population
Bahrain	1234571
Swaziland	1220000
Timor-Leste	1066409

a.FROM world

```
SELECT name, population BETWEEN 1000000 AND 1250000
```

```
FROM name, population
```

```
WHERE population BETWEEN 1000000 AND 1250000
```

b.SELECT world

```
SELECT name, population
```

```
FROM world
```

```
WHERE population BETWEEN 1000000 AND 1250000
```

c.SELECT population BETWEEN 1000000 AND 1250000

```
FROM world
```

```
WHERE population BETWEEN 1000000 AND 1250000
```

d.SELECT name, population FROM world

19. Pick the result you would obtain from this code:

```
SELECT name, population
```

```
FROM world
```

```
WHERE name LIKE "A1%"
```

a Table-A

Albania

Algeria

b Table-B

%bania 3200000

%geria 32900000

c Table-C

Al 0

d Table-D

Albania 3200000

e Table-E

Albania 3200000

Algeria 32900000

20. Select the code which shows the countries that end in A or L

a SELECT name FROM world

WHERE name LIKE 'a%' AND name LIKE 'l%'

b SELECT name FROM world

WHERE name LIKE 'a%' OR name LIKE 'l%'

c SELECT name FROM world

WHERE name LIKE '%a' AND name LIKE '%l'

d SELECT name FROM world

WHERE name LIKE '%a' OR 'l%'

e SELECT name FROM world

WHERE name LIKE '%a' OR name LIKE '%l'

21. Pick the result from the query

SELECT name,length(name)

FROM world

WHERE length(name)=5 and region='Europe'

a) name length(name)

Benin 5

Lybia 5

Egypt 5

b)name length(name)

Italy 5

Egypt 5

Spain 5

c) name length(name)

Italy 5

Malta 5

Spain 5

d) name length(name)

Italy 5

France 6

Spain 5

e) name length(name)

Sweden 6

Norway 6

Poland 6

22. Here are the first few rows of the world table:

name	region	area	population	gdp
------	--------	------	------------	-----

Afghanistan	South Asia	652225	26000000	
-------------	------------	--------	----------	--

Albania	Europe	287283200000	6656000000
Algeria	Middle East	2400000	32900000 75012000000
Andorra	Europe	468	64000
...			

Pick the result you would obtain from this code:

```
SELECT name, area*2 FROM world WHERE population = 64000
```

- a)Andorra 234
- b)Andorra 468
- c)Andorra 936
- d)Andorra 4680
- e)Andorra 936
- Albania 57456

23. Select the code that would show the countries with an area larger than 50000 and a population smaller than 10000000

- a)SELECT name, area, population
FROM world
WHERE area < 50000 AND population < 10000000
- b)SELECT name, area, population
FROM world
WHERE area < 50000 AND population > 10000000
- c)SELECT name, area, population
FROM world
WHERE area > 50000 AND population < 10000000
- d)SELECT name, area, population
FROM world
WHERE area > 50000 AND population > 10000000
- e)SELECT name, area, population

FROM world

WHERE area = 50000 AND population = 10000000

24. Select the code that shows the population density of China, Australia, Nigeria and France

a)SELECT name, area/population

FROM world WHERE name IN ('China', 'Nigeria', 'France', 'Australia')

b)SELECT name, area/population

FROM world WHERE name LIKE ('China', 'Nigeria', 'France', 'Australia')

c)SELECT name, population/area

FROM world

WHERE name IN ('China', 'Nigeria', 'France', 'Australia')

d)SELECT name, population/area

FROM world

WHERE name LIKE ('China', 'Nigeria', 'France', 'Australia')

e)SELECT name, population

FROM world

WHERE name IN ('China', 'Nigeria', 'France', 'Australia')

world

name	continent	area	population	gdp
Afghanistan	South Asia	652225	26000000	
Albania	Europe		287283200000	6656000000
Algeria	Middle East	2400000	32900000	75012000000
Andorra	Europe		468	64000
Brazil	South America	8550000	182800000	564852000000

Colombia	South America	1140000	45600000
Nauru	Asia-Pacific	21	9900
Uzbekistan	Central Asia	447000	26000000
...			

25. Select the code which gives the name of countries beginning with U

a)SELECT name

FROM world

WHERE name

BEGIN with U

b)SELECT name

FROM world

WHERE name LIKE '%U'

c)SELECT name

FROM world

WHERE name LIKE '%u%'

d)SELECT name

FROM world

WHERE name LIKE U

e)SELECT name

FROM world

WHERE name LIKE 'U%'

26. Select the code which shows just the population of United Kingdom?

a)SELECT population

FROM 'United Kingdom'

b)SELECT name

FROM world

WHERE population = 'United Kingdom'

c)SELECT FROM world

WHERE population IN 'United Kingdom'

d)SELECT population

FROM world

WHERE name = 'United Kingdom'

e)SELECT population

FROM world

WHERE 'United Kingdom' IN name

27. Select the answer which shows the problem with this SQL code - the intended result should be the continent of France:

a)SELECT continent

FROM world

WHERE 'name' = 'France'

a)continent should be 'continent'

b)'name' should be name

c)'France' should be "France"

d)'France' should be France

e)= should be IN

28. Select the result that would be obtained from the following code:

SELECT name, population / 10

FROM world

WHERE population < 10000

a)Andorra 6400

Nauru990

b)Andorra 64000

Nauru9900

c)Nauru 99

d)Nauru 990

e)Nauru 9900

29. Select the code which would reveal the name and population of countries in Europe and Asia

a)SELECT name

FROM world

WHERE continent IN ('Europe', 'Asia')

b)SELECT name, population

FROM world

WHERE continent IN ('Europe', 'Asia')

c)SELECT name, population

FROM world

WHERE name IN (Europe Asia)

d)SELECT name, population

FROM world

WHERE name IS ('Europe', 'Asia')

e)SELECT name, population

FROM world

WHERE continent = ('Europe', 'Asia')

30. Select the code which would give two rows

a)SELECT name FROM world

WHERE name = 'Cuba'

b)SELECT name FROM world

WHERE name = 'Cuba'

AND name = 'Togo'

c)SELECT name FROM world

WHERE name EITHER ('Cuba', 'Togo')

d)SELECT name FROM world

WHERE name IN ('Cuba', 'Togo')

e)SELECT name FROM WHERE name IS 'Mali'

30. Select the result that would be obtained from this code:

SELECT name FROM world

WHERE continent = 'South America'

AND population > 40000000

a)AfghanistanBrazil

Colombia

Brazil

b)Brazil

c)Colombia

Brazil

South America

d)Colombia South America

e)Brazil 182800000

Colombia 45600000