

Subqueries – Exists and Not Exists Operators

SubQuery - with Exists Operator

Exists → Returns Boolean value → If it is TRUE Executes Outer Query

Not Exists → Returns Boolean value → If it is TRUE Executes Outer Query

Note: If Inner Query returns FALSE outer Query doesn't executes

Inner Query returns Boolean Value. If Boolean value is True executes Outer Query else Outer Query doesn't executes

Create database Examples

use Examples

--drop database Examples

--drop table Sales

Create table Sales(Period Date, Item varchar (15),
Quantity int, Price int)

-- INSERT VALUES INTO TABLE

insert into Sales values('2018/05/22','Apple',300,15)

insert into Sales values('2018/05/18','Banana',400,18)

insert into Sales values('2018/08/05','Orange',400,17)

insert into Sales values('2018/05/13','Banana',500,16)

insert into Sales values('2017/11/20','Papaya',400,17)

insert into Sales values('2018/04/14','Banana',350,22)

insert into Sales values('2018/05/11','Mango',487,15)

Select * from Sales

Query: Retrieve Item, Price records when Price column consists of value Greater than 20

Note: As PRICE column consists of Value as 22, Outer query returned result set

Query: Retrieve Item, Price records when Price column consists of value Greater than 20

Table = Sales			
Period	Item	Quantity	Price
2018/05/22	Apple	300	15
2018/05/18	Banana	400	18
2018/08/05	Orange	400	17
2018/05/13	Banana	500	16
2017/11/20	Papaya	400	17
2018/04/14	Banana	350	22
2018/05/11	Mango	487	15

Result	
Item	Price
Apple	15
Banana	18
Orange	17
Banana	16
Papaya	17
Banana	22
Mango	15

Select Item, Price from Sales where
Exists

(Select Price from Sales where Price > 20)

Query: Retrieve Item, Price records when Price column doesn't consist of value Greater than 20

Query: Retrieve Item, Price records when Price column doesn't consist of value Greater than 20

Table = Sales			
Period	Item	Quantity	Price
2018/05/22	Apple	300	15
2018/05/18	Banana	400	18
2018/08/05	Orange	400	17
2018/05/13	Banana	500	16
2017/11/20	Papaya	400	17
2018/04/14	Banana	350	22
2018/05/11	Mango	487	15

Result	
Item	Price

Select Item, Price from Sales where
Not Exists

(Select Price from Sales where Price > 20)

Note: As Price column consists of value as 22, Inner query returns result as FALSE . Hence Outer query not executed

Query: Retrieve Item,Price records when Price column consists of value Less than 10

Query: Retrieve Item,Price records when Price column consists of value Less than 10

Table = Sales			
Period	Item	Quantity	Price
2018/05/22	Apple	300	15
2018/05/18	Banana	400	18
2018/08/05	Orange	400	17
2018/05/13	Banana	500	16
2017/11/20	Papaya	400	17
2018/04/14	Banana	350	22
2018/05/11	Mango	487	15

Result	
Item	Price

Select Item,Price from Sales where
Exists

(Select Price from Sales where Price < 10)

Query: Retrieve Item, Price records when Price column doesn't consist of value Less than 10

Query: Retrieve Item,Price records when Price column doesn't consists of value Less than 10

Table = Sales			
Period	Item	Quantity	Price
2018/05/22	Apple	300	15
2018/05/18	Banana	400	18
2018/08/05	Orange	400	17
2018/05/13	Banana	500	16
2017/11/20	Papaya	400	17
2018/04/14	Banana	350	22
2018/05/11	Mango	487	15

Result	
Item	Price
Apple	15
Banana	18
Orange	17
Banana	16
Papaya	17
Banana	22
Mango	15

Select Item,Price from Sales where
Not Exists

(Select Price from Sales where Price < 10)