SQL queries:

1. create table Ecommerce (InvoiceNo varchar (20),

   StockCode varchar (20),

   Description varchar (2000),

   Quantity integer,

   InvoiceDate Date,

   UnitPrice float,

   CustomerID varchar (20) ,

   Country varchar (20))

2. SELECT * FROM Ecommerce;

3. Select invoiceno, description, quantity, unitprice from Ecommerce;

4. select invoiceno, quantity,unitprice, quantity *unitprice as
   total_price from Ecommerce
   where quantity‹5 order by total_price
   Limit 5

5. select invoiceno, quantity,unitprice, quantity *unitprice as
   total_price from Ecommerce
   where quantity‹5 order by total_price

6. select * from Ecommerce where invoicedate
   between '2010-12-02' and '2010-12-06

7. select * from Ecommerce where customerid='12838'

8. select quantity ,avg(unitprice) as avg_price from Ecommerce group by quantity
9. select quantity, sum(unitprice) as sum_price from Ecommerce group by quantity

10. select description, total_quantity from (
    select description, sum(cast(quantity as integer)) as total quantity from Ecommerce
    group by description) as sub order by total_quantity DESC
    Limit 5;

11. SELECT
    invoiceno, quantity, unitprice,
    CAST (quantity AS INTEGER) * unitprice AS total_price
    FROM Ecommerce
    ORDER BY total_price DESC;

12. select distinct customerid, country from Ecommerce where unitprice > select avg (unitprice) from Ecommerce

13. SELECT
    customer ID,
    SUM (quantity * unitprice) AS total_ sales
    FROM
    Ecommerce
    GROUP BY
    customer ID;

14. SELECT *
    FROM Ecommerce
    WHERE unitprice > (
    SELECT AVG (unitprice)
    FROM Ecommerce);

15. SELECT invoiceno, total_sales
    FROM (
    SELECT
    invoiceno,
    SUM (CAST (quantity AS INTEGER) * unitprice) AS total_sales
    FROM Ecommerce
    GROUP BY invoiceno
) AS invoice_totals
    WHERE total_sales › 100;

16. create view order_details_view as
    select invoiceno, stockcode, description,
    CAST (quantity as integer) as quantity, unitprice,
    CAST (quantity as integer) * unitprice AS total_price, customerid, country,
    invoicedate from Ecommerce

17. select * from order_details_view;

18. create table customers (customer ID varchar (50) , firstname varchar (50), lastname varchar (50), Email varchar (50), phone varchar (50), Country varchar (50))

19. select * from customers
    create index idx_country on ecommerce(country);
    SELECT indexname, indexdef
    FROM pg_indexes
    WHERE tablename = 'ecommerce';

20. select
    e. invoiceno,
    e. invoicedate,
    e. quantity, e.unitprice,
    c. Firstname,
    c. lastname from Ecommerce e inner join customers c
    on e.customerID = c. customerid

21. select
    e. invoiceno,
    e. invoicedate,
    e quantity,
    e.unitprice,
    c. firstname,
    c. lastname from Ecommerce e
    left join customers c
    on e.customerID = c. customerid

22. select
    e. invoiceno,
    e. invoicedate,
    e. quantity, e.unitprice,
    c. firstname,
    c. lastname from Ecommerce e right join customers c
    on e. customerID = c. customerid