

Database Management Systems

Lab Cycle-I (SQL)

Assignments:

1. Creation of General Hardware Database (GHD), Insertion of data into GHD and writing and executing queries for the questions 1-5.
2. Writing and executing queries for the questions 6-20.
3. Creation of Book Store Database (BSD), Insertion of data into BSD and answering the queries.

I. General Hardware Database:

SalesPerson(SalesPersonNumber, SalesPersonName, CommPercentage, YearHire, OfficeNumber)

Customer (CustomerNumber, CustomerName, SalesPersonNumber, HeadQuarterCity)

Customer Employee (CustomerNumber, EmployeeNumber, EmployeeName, Title)

Product (ProductNumber, ProductName, UnitPrice)

Sales (SalesPersonNumber, ProductNumber, Quantity)

Office (OfficeNumber, Telephone, Size)

Answer the following queries

1. Find the commission percentage and year of hire of salesperson number 186.
2. List the salesperson numbers and salesperson names of those salespersons who have a commission percentage of 10.
3. List the salesperson number and salesperson name of all of the salespersons.
4. List the salesperson numbers, salesperson names, and commission percentages of the salespersons whose commission percentage is less than 12.
5. List the customer numbers and headquarters cities of the customers that have a customer number of at least 1700.
6. List the customer numbers, customer names, and headquarters cities of the customers that are headquartered in New York and that have a customer number higher than 1500.
7. 'List the customer numbers, customer names, and headquarters cities of the customers that are headquartered in New York *or* that have a customer number higher than 1500.

8. List the customer numbers, customer names, and headquarters cities of the customers that are headquartered in New York or that satisfy the two conditions of having a customer number higher than 1500 and being headquartered in Atlanta.
9. Which cities serve as headquarters cities for General Hardware customers?
10. Find the customer numbers, customer names, and headquarters cities of those customers with customer numbers greater than 1000. List the results in alphabetic order by headquarters cities.
11. Find the average number of units of the different products that Salesperson 137 sold (i.e., the average of the quantity values in the first three records of the SALES table).
12. What is the largest number of units of Product Number 21765 that any individual salesperson has sold?
13. How many salespersons have sold Product Number 21765?
14. Find the total number of units of all products sold by each salesperson.
15. Find the total number of units of all products sold by each salesperson whose salesperson number is at least 150.
16. Find the total number of units of all products sold by each salesperson whose salesperson number is at least 150.
17. Find the total number of units of all products sold by each salesperson whose salesperson number is at least 150. Include only salespersons whose total number of units sold is at least 5000.
18. Find the name of the salesperson responsible for Customer Number 1525.
19. List the *names* of the products of which salesperson Adams has sold more than 2000 units.
20. Which salespersons with salesperson numbers greater than 200 have the lowest commission percentage?'' (We'll identify salespersons by their salesperson number.)

II. Book Stores Database:

Publisher (PublisherName, City, Country, TelephoneNumber, YaerOfFoundation)

Author (AuthorNumber, AuthorName, DateOfBirth)

Book (BookNumber, BookName, PublishedYear, Pagee, Cost, PublisherName)

Customer (CustomerNumber, CustomerName, Street, City, State, Country)

Writing (BookNumber, AuthorNumber)

Sale (BookNumber, CustomerNumber, Date, Price, Quantity)

Answer the following queries

1. Find the book number, book name, and number of pages of all the books published by London Publishing Ltd. List the results in order by book name.
2. How many books of at least 400 pages does Good Reading Bookstores carry that were published by publishers based in Paris, France?
3. List the publishers in Belgium, Brazil, and Singapore that publish books written by authors who were born before 1920.
4. How many books did each publisher in India, Norway; Nairobi, Kenya; and Auckland, New Zealand, publish in 2001?
5. Which publisher published the book that has the earliest publication year among all the books that Good Reading Bookstores carries?