

SQL PROJECT

CREATE TABLES, INSERT RECORDS AND PERFORM QUERIES ON TABLE.

Table & Queries

Staff table:

Column name	Datatype	Description
Staffid	Number	Primary key
Sname	Varchar	
Design	Varchar	
Mgrid	Number	References
Doj	Date	
Sal	Number	
Comm.	Number	
Libno	Number	References library

Data for staff tables

staffid	sname	desig	mgrid	doj	sal	comm	libno
17934	MILLER	CLERK	17782	23-JAN-02	1430		10
17369	SMITH	CLERK	17902	12-NOV-99	800		20
17499	ALLEN	LIBRARIAN	17698	20-FEB-01	1600	300	30
17521	WARD	LIBRARIAN	17698	21-FEB-01	1250	500	30
17566	JONES	MANAGER	17839	04-FEB-01	2975		20
17654	MARTIN	LIBRARIAN	17698	29-SEP-01	1250	1400	30
17782	CLARK	MANAGER	17839	05-JAN-01	2850		30
17788	SCOTT	MANAGER	17839	06-SEP-01	2450		10
17839	KING	PRESIDENT		17-NOV-01	5000		10
17844	TURNER	LIBRARIAN	17698	09-AUG-01	1500	0	30
17876	ADAMS	CLERK	17788	01-DEC-03	1100		20
17900	JAMES	CLERK	17900	12-Mar-01	950		30
17902	FORD	SR LIBRARIAN	17902	12-Apr-01	3000		20

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Library table:

Columnname	Datatype	Description
Libno	Number	Primary key
Libname	Varchar	
City	varchar	

DATA for library tables

LIBNO	LNAME	CITY
10	KNOWLEDGE POWER	DELHI
20	REDEFINE KNOWLEDE	BOMBAY
30	EXPERTISE	CHENNAI
40	EXCELLENCE	KOLKATA

BOOKS Table

Column name	Datatype	Description
Book_no	Varchar2(20)	Primary key
Book_name	Varchar2(20)	Not null
Author	Varchar2(20)	
Price	Varchar2(20)	
No_of_books	Number(4)	

Book_no	Book_name	Author	Price	No_of_books
O101	ORACLE	IVAN	500	10
J109	JAVA	BRUCE	478	9
C104	C-guide	COOK	987	8
S108	SQL-SERVER	SHARON	890	8
D178	DB2	SHARON	789	9
S140	SYBASE	COOK	876	9
D120	DATA WAREHOUSING	IVAN	890	10
D432	DATAMINING	LONEY	1190	0
P108	PL/SQL	LONEY	1112	2
D188	DEVELOPER	WONG	123	6

Member table

Column name	Datatype	Description
Mem_no	Varchar2(20)	Primary key
Mem_name	Varchar2(20)	Not null
Mem_type	Varchar2(20)	(M,Y,L)
No_of_books	Number(2)	
Total_fine	Number(4)	
Expiry date	date	

MEM_NO	MEM_NAME	MEM_TYPE	NO_OF_BOOKS	TOTAL_FINE	EXPIRY DATE
M102	JANE	M	1		31-JUN-05
M108	MILLER	M	2	80	20-JUN-05
M104	SHERLY	M	2	20	20-JUN-05
M109	WATSON	M	1	10	29-AUG-05
Y101	LAZOR	Y	3	30	29-AUG-06
Y109	PETER	Y	4		27-JUN-06
Y102	MERCY	Y	2	100	20-JAN-06
L106	SONY	L	6	1100	20-JAN-20
L109	GREG	L	3	2000	22-SEP-20
L117	MABIE	L	2	1000	3-JAN-19

Transaction table

Column name	Datatype	Description
Book_no	Varchar2(20)	Foreign key of Book
Mem_no	Varchar2(20)	Foreign key of member
Issue_date	Date	Sysdate
Due_date	Date	Sysdate+7
Return_date	Date	
Fine	number	

Book_no	Mem_no	Issue_date	Due_date	Return_date	fine
J109	M102	12-AUG-05	19-AUG-05	14-AUG-05	
C104	M104	12-AUG-05	19-AUG-05	28-AUG-05	160
S108	M104	14-AUG-05	21-AUG-05	20-AUG-05	

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P108	M109	01-AUG-05	07-AUG-05	11-AUG-05	40
P108	Y101	02-AUG-05	09-AUG-05	12-AUG-05	30
P108	L109	14-AUG-05	21-AUG-05	30-AUG-05	90
P108	L117	14-AUG-05	21-AUG-05	29-SEP-05	450
S108	L109	12-SEP-05	19-SEP-05		
D188	Y102	14-SEP-05	21-SEP-05		
D188	L117	18-SEP-05	25-SEP-05	20-SEP-05	
S140	L109	19-SEP-05	26-SEP-05	29-SEP-05	30
P108	Y102	19-SEP-05	26-SEP-05		
P108	L117	19-SEP-05	26-SEP-05		

Salgrade2

Name	Null?	Type

GRADE	NUMBER
LOSAL	NUMBER
HISAL	NUMBER

Data

GRADE	LOSAL	HISAL
1	700	1200
2	1201	1400
3	1401	2000
4	2001	3000
5	3001	9999

QUERIES

1. List the staff belonging to the lib 20
2. list the name and salary of the staff whose sal is more then 1000
3. list the staffid and the name of the managers
4. list the name of clerks working in the lib20
5. list the name of sr librarian and librarian
6. list the details of the staff who have joined before the end of September 01
7. list the names of staff who are not managers
8. list the name of the staff whose staffid are 17369,17521,17839,17934,17788
9. list the staff details not belonging to the lib 10,30 and 40
10. list the staff name and sal whose sal is between 2000 and 5000
11. list the staff name who have joined before 30 dec 01 and after 30th jun 01
12. List the staff not eligible for commission
13. list the name of the designation of the staff who does not report to anybody
14. list the staff not assigned to any library
15. list eh staff who are eligible for commission
16. list the details of staff whose sal is greater then 2000 and not getting any commission
17. List the staff whose name start with an 'S'
18. list the staff details whose name start with an 'S' or end with 'S'
19. list the names of staff whose names have exactly 5 characters
20. List the names having 'I' as the second character
21. List the name,sal and Pf amount to all the staff (pf is 10% of sal)
22. list the names of staff who are more than 2yrs old in the organization
23. list the staffid, name and sal in ascending order of sal
24. list the staff details in ascending order of doj
25. list the staff name,sal,design and libno in descending order of libno and sal
26. list the staffname,sal,PF,HRA,DA and gross, order by the result in ascending order of gross(HRA 50% and DA 30% of sal).
27. for each staff, display the staffid,sname,sal and sal increased by 15% and expressed in whole number.
28. write the query that displays the staff name with the first letter capitalized and all others in lowercase and the length of the name for those staff who start with J,A or M sort by sname
29. for each employee, display the sname and calculate the number of months between today and the date the employee was hired.
30. create a query to display the sname and sal for all staff,format sal to be 15 char long,left padded with \$
31. display the sname,doj and day of the week on which they started for all the employees

32. list the number of staff working with the company
33. list the number of designation available
34. list the max sal of staff working as librarian
35. list the avg sal and number of staff working in the lib 20
36. List staff having experience greater than 200 months.
37. Declare certain percentage of bonus based designation.
38. Display each staffname, doj, and salary review date, which is the first Monday after six months of service. Label the column REVIEW. Format the dates to appear in the format similar to "Monday, the Thirty-First of July, 2000."
39. Print list of staff displaying "Good salary" if sal > 3000, "Average salary" if sal=3000 and "Poor salary" if sal < 3000.
40. Write a query to calculate the length of any staff has been with the company. Display in number of years and months. Staff hired on or before 15th are paid on last Friday of same month. Those hired after 15th are paid on last Friday of next month. Display first pay date of all the employees.
41. List staff hired on Monday.
42. Create a query that displays the staff names and commission amounts. If an staff does not earn commission, put "No Commission." Label the column COMM.
43. list the libno and number of staff in each lib
44. list the libno and the total sal payable in each library
45. list the design and the number of staff in each design. Display in the ascending order of number of staff
46. list the total sal,max and min sal and the average sal of staff job wise
47. list the avg sal for each job excluding managers
48. list the total sal,max,min and avg sal of staff jobwise for libno 20 only
49. list the avg sal for all the lib employing more than five people
50. list the jobs of all staff where max sal is greater than or equal to 5000
51. list the tot sal,max and min sal and avg sal of staff job wise for libno 20 only and display only those rows having sal greater than 2000 and order the result by the sum of sal
52. list the member details and book details for those members who have paid fine amount more then 200
53. List libno, lname along with total salary in each library
54. List employees located in delhi
55. List staff and lib details for libno 30 and 40.
56. List all staff who earn less than their managers. List their managers details also.
57. Find all staff who joined the company before their manager
58. List details from staff, library and salgrade table excluding clerks and employees with grade 1. Order on their names.
59. List staff with grade 3 or 4
60. List sname, design, sal, grade, lname with annual remuneration greater than 36000 or any clerks.
61. List all staff who earn less than their managers. List their managers details also.

62. Find the job that was filled in first half of 2002 and the same job that was filled during first half of 2003
63. list the staff belonging to the lib of MILLER
64. list the names of the staff drawing the highest sal
65. list the staff details whose sal is greater than avg sal of staff whose doj is before "01-04-01"
66. list the job with the highest avg sal
67. list the lib details whose managers id is 17698
68. list the names of the staff who earn lowest sal in each lib
69. List staff working under KING
70. List library with maximum average salary.

More practice Questions

1. Calculate the fine amount of every member
2. List all the member details who have borrowed book on Wednesday
3. List all member details who had borrowed the same book as that of the member who had paid fine more than 50/-
4. List all the member details who had not borrowed any book
5. List all the book details which had not been borrowed by any member
6. List all the member details who had paid fine more than 100/-
7. List all the member details who had never paid fine
8. List all member and book details who had borrowed the same book on the same day
9. List all the book details with the book code starting with any char, followed by 3 numbers
10. List all the books published by the same author
11. List all the book details of the same price
12. List the no of books published by the same author
13. List all clerks earning less than 1000 and all managers
14. Display the o/p 'ALLEN BORROWED ORACLE BOOK' USING CONCAT operator
15. Print memberno,bookno displaying "somefine" if fine<=50 and "nofine" if fine=0 and "fine" if fine>50
16. Display the members and the number of books they have currently borrowed
17. List average sal of each job type excluding managers
18. List the number of managers
19. List all members whose expiry date is the last day of the month
20. List how many staff are under each manager
21. List the number of people for the same job
22. List staff working under head
23. Find staff who earn the highest sal in each job type

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24. List the member and book information for all the books which are currently borrowed
25. List all the details of members and books that the specified member has borrowed the specified book