LAB CYCLE 3

# *QUESTION SET 1*

Create a table STUDENT with fields sid, name, dob (date of birth) and marks of 3 subjects ( physics, chemistry and maths ). Add the details of 5 students.

Perform the following queries:

1. Display the id and name of youngest student.
2. Display the details of students who have passed in maths and either in physics or chemistry.(pass mark = 40 marks and above)
3. Add two more columns total and average.
4. Display the name of student who scored highest marks in maths.
5. Display the name of student who scored least marks in chemistry.
6. Update column total with total marks.
7. Display details of students in order of total merit.
8. Rename the column average with avg\_mark
9. Find out the overall average of class.
10. Display details of students whose average is greater than overall average. 11.Find the total no: of students whose average is greater than overall

average.

# *QUESTION SET 2*

Create the Table LOAN\_ACCOUNTS with the structure given below

|  |  |  |
| --- | --- | --- |
| Field Name | Data Type | Length |
| Accno | CHAR | 4 |
| Cust\_name | VARCHAR2 | 15 |
| Loan\_Amount | NUMBER | 7 digits and 2 decimal places |
| Installments | NUMBER |  |
| int\_rate | NUMBER | 2 digits and 2 decimal places |
| Start\_date | DATE |  |
| Interest | NUMBER | 7 digits and 2 decimal places |

Add another column ‘category’ of type varchar2(1) in the Loan Table. Insert the following details into the table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Accno | Cust\_nam e | Loan\_Amoun t | Installment s | int\_rate | Start\_date | Interest |
| 1001 | R.K Gupta | 300,000.00 | 36 | 12.00 | July 19,  2009 |  |
| 1002 | S.P  Sharma | 500,000.00 | 48 | 10.00 | March 22,  2008 |  |
| 1003 | K.P Jain | 300,000.00 | 36 | NULL | August 3,  2007 |  |
| 1004 | M.P  Yadav | 800,000.00 | 60 | 10.00 | June 12,  2008 |  |
| 1005 | S.P Sinha | 200,000.00 | 36 | 12.50 | March 1,  2010 |  |
| 1006 | P. Sharma | 700,000.00 | 60 | 12.50 | May 6,  2008 |  |
| 1007 | K.S Dhall | 500,000.00 | 48 | NULL | May 3,  2008 |  |

1. Put the interest rate 11.50% for all the loans for which the interest rate is NULL.
2. Increase the interest rate by 0.5% for all the Loans for which the Loan amount is more than 400000.
3. For each Loan replace Interest with (Loan\_amount \* Int\_rate\* installments)/(12\*100).
4. Delete the records of all the Loans whose start date is before 2008.
5. Delete the records of all the Loans whose name starts with ‘K’
6. Display the details of all the Loans with less than 40 installments.
7. Display the Accno and Loan\_amount of all the loans started before 01- 04-2009.
8. Display the int\_rate of all Loans started after 01-04-2009.
9. Display the Accno, cust\_name and Loan amount for all the Loans for which the cust\_name ends with‘Sharma’.
10. Loan\_Amount of all the Loans for which the Cust\_name ends with ‘a’.
11. Display the Accno, Cust\_name and Loan\_Amount for the Loans for which the Cust\_name contains ‘a’.
12. Dsiplay the Accno, Cust\_name and Loan\_Amount for all the Loans for which the Cust\_name does not contain ‘P’.
13. Display the structure of table LOAN\_ACCOUNTS so that you can verify that the table is created as required.
14. Display the details of all the loans in the ascending order of their Loan\_Amount.
15. Display the details of all the Loans in the descending order of their Start\_date.
16. Display the details of all the Loans in the ascending order of their Loan\_amount and within Loan\_amount in the descending order of their Start\_date.
17. Display the Accno, Cust\_name and Loan\_Amount of all the Loans for which the Cust\_name starts with ‘K’.
18. Display the details of all the Loans whose rate of interest in NULL. 19.Display the details of all the loans whose rate of interest is not NULL. 20.Display the amounts of various loans from the table Loan\_Accounts. A

Loan\_Amount should appear only once.

1. Display the details of all the loans started after 31-12-2008 for which the number of installments are more than 36.
2. Display the Customer\_name and Loan\_amount for all the Loans for which the Loan amount is less than 500000 or int\_rate is more than 12.
3. Display the details of all Loans which started in the year 2009. 24.Display the details of all the Loans whose Loan amount is in the Range

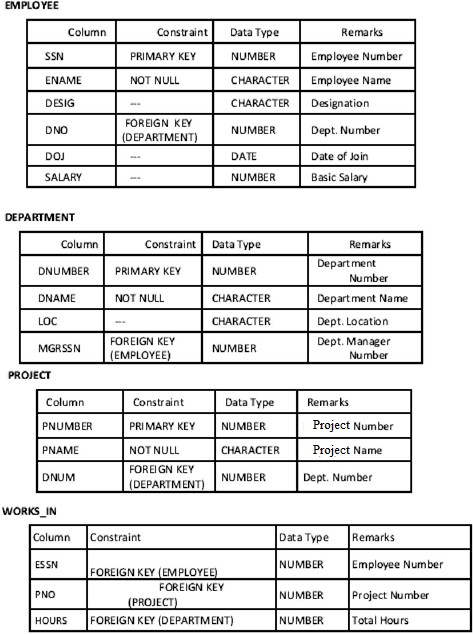
400000 to 500000.

1. Display the Customer\_name and Loan\_amount of all the Loans for which the number of installments are 26, 36 and 48.
2. Display the customer name, loan\_amount and interest rate. If interest rate is NULL, display it as 0.
3. Display the customer name, loan\_amount and interest rate. If interest rate is NULL, display it as “No Interest”.

# *QUESTION SET 3*

Create the following tables.

* Primary key, SSN of EMPLOYEE should be created as a sequence starting at 1.
* There should be at least 8 employees and 5 departments
* Check salary range of employees is between 30,000 and 75,000 using check predicate.



* 1. Retrieve all employees in department 5 whose salary is between Rs 30,000 and Rs 40,000.
  2. Retrieve a list of employees and the projects they are working on, where the departments and the employees within the department are alphabetically by name.
  3. Retrieve the project number, the project name, and the number of employees who work in each project.
  4. For the project on which more than two employees work, retrieve the project number, the project name, and the number of employees who work on the project.
  5. For each project, retrieve the project number, the project name, and the number of employees from department 5 who work on the project.
  6. For the departments having more than five employees, display the department id and the number and details of employees earning more than Rs 40,000 per month.
  7. Create a synonym for the VIEW created on natural join of emp and dept tables.
  8. Use the tables Employee, and Department. Perform the operations as mentioned below:
     1. Display the employee details, departments that the departments are same in

both the emp and dept. (Equi-join)

* + 1. Display the employee details, departments that the departments are not same in both the emp and dept. (Non Equi-join)
    2. Perform Left outer join on the emp and dept tables.
    3. Perform Right outer join on the emp and dept tables.
    4. Perform inner join on the emp and dept tables.