# Lab Assignment For Oracle.

## Queries

**1** **Consider the following Table.**

| student No | Class | Name | Game 1 | Grade | Game 2 | Grade |
|---|---|---|---|---|---|---|
| 10 | 7 | Samir | Cricket | B | Swimming | A |
| 11 | 8 | Sujit | Tennis | A | Skating | C |
| 12 | 7 | Lara | Swimming | B | Football | B |
| 13 | 7 | Veena | Tennis | C | Tennis | A |
| 14 | 9 | Archana | Basket ball | A | Cricket | A |
| 15 | 10 | Arpit | Cricket | A | Athletics | C |

**Answer the following queries.**

| | |
|---|---|
| 1 | Display the names of the students who have grade 'C' in either Game 1 or Game 2 or both. |
| 2 | Display the number of students getting grade 'A' in Cricket |
| 3 | Display the names of the students who have same game for both game 1 and game 2. |
| 4 | Display the games taken up by the student, whose name starts with 'A'. |
| 5 | Show a calculated column marks. Assign a value 200 for marks for all those who are getting grade 'B' or grade 'A' in both Game 1 and Game 2. |

**2** **Solve the following queries based on the following tables.**

| | | | |
|---|---|---|---|
| I | Emp_Master | emp_no | n(10) |
| | | Emp_nm | c(20) |
| | | Mngr_no | n(10) |
| II | Manager | Mngr_no | n(10) |
| | | Mngr_nm | c(20) |
| | | Dept_code | n(10) |
| III | Dept_Master | Dept_code | n(10) |
| | | Dept_Nm | c(20) |
| | | Tot_emp | n(10) |

**Answer the following queries.**

| | |
|---|---|
| 1 | List the names of employee for manager number 9. |
| 2 | List the employee those who are working in 'sales' department. |
| 3 | List the total no. of employee who are working under Manager "K. Ashutosh". |
| 4 | List the names of manager working in 'Purchase' department. |
| 5 | List the manager who is working in more than one department. |

**3** **Write SQL queries to answer the following**.

Table: EMP

Fields: EMPNO number(5), ENAME Varchar2(20),SALARY number(8,2),DEPTNO number(3),COMM number(8,2)

1. Display the names of all employees whose salary is greater than average salary of his department.
2. Display the names of all employees whose salary is maximum in his department.
3. Count the number of employee in each department.
4. Display empno, ename, salary and "Insentive" as new column which is 10% of salary + comm.
5. Display ename proceed by "Mr".

<table>
<tr><td>4</td><td>Write the query in SQL for the following :<br>Consider following tables.<br>emp(empno,ename,city,salary,designation,deptno,hiredate)<br>dept(deptno,deptname)<br>1. List how many designations we have.<br>2. Display the entire employee who is having as ‘a’ as character in their name.<br>3. Display the experience of he employee.<br>4. List all the employee who join after ‘dec-2000’<br>5. List all the employee whose salary is greater than 10,000.</td></tr>
<tr><td>5</td><td>Write the query in SQL for the following:<br>Consider the following tables:<br>EMP(empno, ename, salary, designation, deptno, hiredate)<br>DEPT(deptno,deptname)<br>1. List all the employee whose salary is greater than 10,000.<br>2. List all the department number whose department name is :’New York’.<br>3. Modify the sequence My_Seq to increment by 10 as it was previously increment by 2.<br>4. Display average salaries department wise.<br>5. Display all the employee who is having as ‘a’ as second character in their name.</td></tr>
<tr><td>6</td><td>Attempt the following<br>Consider the following Tables :<br>Employee(Empno,Ename, City,Salary,Deptno)<br>Dept(Deptno, DeptName)<br>Write queries for the following :<br>(a) Display total salary Departmentwise with department name.<br>(b) List the name of employee who belongs to the same department and same city.<br>(c) Display total salary whose department is SALES.<br>(d) Consider the above tables – write a PL/SQL block that reads a department name and increment in salary for all the employee of that department. The increment in salary is to be applied only if the total salary of that department after increment does not exceed Rs. 75,000.<br>(e) Consider the above tables – write a procedure which read department number and calculate total salary that department.</td></tr>
<tr><td colspan="2">PL Block</td></tr>
<tr><td>7</td><td>Write a program to input 2 number and calculate total of it.</td></tr>
<tr><td>8</td><td>Write a program to find max number given two numbers.</td></tr>
<tr><td>9</td><td>Write a program to find max number out of three numbers.</td></tr>
<tr><td>10</td><td>Write a program to print 10 natural numbers.</td></tr>
<tr><td>11</td><td>Write a program to print series : 1,3,5,7,9…….n</td></tr>
<tr><td>12</td><td>Write a program to print series : 0,2,4,6,8,10</td></tr>
<tr><td>13</td><td>Write a program to find total of first 100 odd numbers.</td></tr>
<tr><td>14</td><td>Write a program to find average of first 100 even numbers.</td></tr>
<tr><td>15</td><td>Write a PL block to find out the sum of all even and odd nos. between 1 and 20 using loop statement.</td></tr>
<tr><td>16</td><td>Write a program to insert a record in Customer table:<br>Table: Customer(cust_id,f_name,l_name,area,phone).</td></tr>
<tr><td>17</td><td>Write a PL/SQL block to display Fibonacci series.</td></tr>
<tr><td>18</td><td>Write a PL/SQL block to check wether the empno is avilable in emp table or not. if it is present then display the record and insert it into another table otherwise display the message “Record not found” use the following table structure.
<table>
<tr><th>Column_name</th><th>Attribute</th><th>Data_type</th></tr>
<tr><td>Emp_no</td><td>Primary key</td><td>Varchar2(10)</td></tr>
<tr><td>Emp_name</td><td>Not null</td><td>Varchar2(20)</td></tr>
</table>
</td></tr>
</table>

| | | | |
|---|---|---|---|
| Phone_no | | Number(10) |
| City | | Varchar2(15) |
| Salary | | Number(6) |

**19** Write a PL/SQL block to check whether inputted number is prime or not.

**20** Write a PL/SQL block that would update the price with new price(increment by 1000) in product_master table. if price is less than 50000 and store old price in old_price_product table.
Create a function to check whether the price is less than 5000 or not. if it is, then it will return 0 else return 1.

| Column_name | Attribute | Data_type |
|---|---|---|
| product_id | primary key | varchar2(3) |
| product_name | | varchar2(15) |
| price | | number(10,3) |

**21** REVERSING A NUMBER 5639 TO 9365.

**22** Write a PL block that check the gender and insert the data in appropriate table.

**23** Write a PL block that merge the data of two table in one.(**tables:**stud,marks,stu_marks)

## Cursor

**24** Write A Program For Implicit Cursors( SQL%FOUND)

**25** Write A Program For Implicit Cursors( SQL%NOTFOUND )

**26** Write A Program For Implicit Cursors( SQL%ROWCOUNT)

**27** Display details of Highest 10 salary paid employee

**28** Write a program to create 'CURSOR' for the customer table.
Display the output in following formar.
**{L_name} {F_name} is staying in {area} Area.**

**29** Create a cursor to retrive rows from employee table for the employee's having salary>1000 and salary<=2500. Produce the output in following formar.
**{Xename} is working as {Xdesign} in Department No{Xdept} & earning Rs.{Sal} per month.**

**30** Give command to create following table : EMP

| Field name | Field Type | Constraint |
|---|---|---|
| Empno | Number(4) | Primary key |
| Ename | Varchar(20) | Not Null |
| Job | Varchar(9) | |
| MGR | Number(4) | |
| Hiredate | Date | |
| Sal | Number(7,2) | |
| Comm. | Number(7,2) | |
| Deptno | Number(2) | Foreign key to<br>Table - dept table<br>Field deptno |

Create a cursor MAX_HALF to increase the salary for a particular department number. The deptno will be passed as parameter. Your Pl/Sql block will increase the salary to its employee just half of the maximum salary of passed deptno. Also, handle an exception if there is no salary. Display the employee number, name and increased salary.

**31** Write PL/SQL code blocks that accept s the movie_no from the user. And check the type of movie. If the type is either comedy or action or horror and price of the movie is less than Rs. 5,00,000 then purchase that movie and insert the movie record in purchase table. Consider the following table.
Movie : mv_no, mv_nm, mv_type, mv_price, rd_date
Purchase : mv_no, mv_nm, mv_type, mv_price, pur_date

**32** Write pl/sql block to update the stock of all items as per transaction using cursor(Note : use following tables)

<table>
<tr><td></td><td>Item_master(Item_code(PK),Description,Stock)<br>Transaction(Tran_no(PK),Item_code(FK),Tr_type,Qty)<br>Here Tr_Type =PR means purchase SL means sales.</td></tr>
<tr><td>33</td><td>Write a program to check the sex. If it is male insert it in MALE table else insert it in FEMALE table. Create separate sequences for roll no.</td></tr>
<tr><td>34</td><td>Create Table:Employee(Emo_No,Emp_name,Sal_amt,Basic_salary,Bonus)<br>Write a program to calaculate bonus for all the employee working as a salesman,clerk or peon. Or the employee earning less than 5000 per month.<br>Consder following Bonus amount for each kind of employee.<br>Saleman> 800 Rs.<br>Clerk> 650 Rs.<br>Peon> 800 Rs.<br>Other employee having salary less than 5000 per month. For them bonus is 10% of their basic salary.</td></tr>
<tr><td>35</td><td>Write a program for parameterized cursor where deptno is passed as parameter.</td></tr>
<tr><td>36</td><td>Write a program for parameterized cursor where city is passed as parameter.</td></tr>
<tr><td colspan="2">Trigger</td></tr>
<tr><td>37</td><td>Write a Trigger RESTRICT_TRIG to restrict all operations on weekends and non-office hours.</td></tr>
<tr><td>38</td><td>Create a transparent Bank System for Bank_master table. the system must track of the records that are been updated for deposit or withdrawal. withdrawal is made when bal>500.<br>Create a trigger with insert a record in bank_transaction table after update operation is performed on bank_master table.<br><br>Table: Bank_master<br>Field datatype<br>acc_no primary key(varchar2(3))<br>Name Varchar2(20)<br>Bal Number(8)<br>Table : ank_transaction<br>acc_no Foreign key<br>name varchar2(20)<br>bal_new Number(8)<br>Operation varchar2(10)<br>date_of_op date.</td></tr>
<tr><td>39</td><td>Write a trigger AUDIT_TRAIL to record the user name, date and operation for update, delete and insert on CLIENT_MASTER table.</td></tr>
<tr><td>40</td><td>Write a trigger that generates automatic numbers of the primary key.</td></tr>
<tr><td>41</td><td>Create a table student. Create a “Trigger” which calculates the percentage automatically.</td></tr>
<tr><td>42</td><td>Write a program to create “Trigger” to calaculate the income tax amount<br>Emp_Table : emp_no,Emp_income<br>consider the following Rate:
<table>
<tr><td>Emp_income < 40000</td><td>0%</td></tr>
<tr><td>Emp_income >40000 and Emp_income <=60000</td><td>2%</td></tr>
<tr><td>Emp_income >60000 and Emp_income <=90000</td><td>5%</td></tr>
<tr><td>Emp_income >90000 and Emp_income<=1,20,000</td><td>8%</td></tr>
<tr><td>Emp_income > 1,20,000 and Emp_income <=2,00,000</td><td>10%</td></tr>
<tr><td>Emp_income >2,00,000 and Emp_income <= 5,00,000</td><td>12.5%</td></tr>
<tr><td>Emp_income > 5,00,000 and Emp_income <=10,00,000</td><td>18%</td></tr>
<tr><td>Emp_income >10,00,000</td><td>20%</td></tr>
</table></td></tr>
<tr><td>43</td><td>Write a trigger to convert uppercase name while inserting or deleting record.</td></tr>
<tr><td>44</td><td>Write a trigger which allows only positive valuse while insering or deleting record.</td></tr>
<tr><td>45</td><td>Write a trigger which converts negative valuse in null on inserting or deleting.</td></tr>
</table>

<table>
<tr><td>46</td><td>Write a block that backup of all the rows automatically when they are deleted.</td></tr>
<tr><td>47</td><td>Write a trigger for follwing:
<table>
<tr><th>TABLE stud</th><th>TABLE marks</th><th>TABLE stud_marks</th></tr>
<tr><td>(GRNO primary key ,NAME ,AGE , STD,CITY )</td><td>(GRNO foreign key,SUB1 ,SUB2 ,SUB3 ,TOT ,PER )</td><td>((GRNO ,NAME ,AGE , STD,CITY , SUB1 ,SUB2 ,SUB3 ,TOT ,PER)</td></tr>
<tr><td colspan="3">While deleting record from stud table. backup whole data in stud_marks table</td></tr>
</table></td></tr>
<tr><td>48</td><td>Write a trigger for library management.
<table>
<tr><th>TABLE BOOK_DETAIL</th><th>TABLE ISSUE</th><th>TABLE ISSUE_DETAIL</th></tr>
<tr><td>(BOOK_NO NUMBER(4), BOOK_NAME VARCHAR2(50), PUBLISHEDYEAR NUMBER(4), AUTHOR VARCHAR2(30));</td><td>(BOOK_NO NUMBER(4), ISSUE_DATE DATE, ISSUED_TO VARCHAR2(30));</td><td>(BOOK_NO NUMBER(4), BOOK_NAME VARCHAR2(50), AUTHOR VARCHAR2(30), ISSUE_DATE DATE, ISSUED_TO VARCHAR2(30));</td></tr>
<tr><td colspan="3">While inserting record in issue table. backup whole data in issue_details table.</td></tr>
</table></td></tr>
<tr><td>49</td><td>Write a statement level trigger for update, delete or insert in table stud.</td></tr>
<tr><td colspan="2">Function</td></tr>
<tr><td>50</td><td>Create a function to calculate sum of two given number.</td></tr>
<tr><td>51</td><td>Create a function to calculate square root of given number.</td></tr>
<tr><td>52</td><td>Create a function that convert decimal number into binary.</td></tr>
<tr><td>53</td><td>Create a function to reverse the given string.</td></tr>
<tr><td>54</td><td>Create a function to check whether the given number is prime or not.</td></tr>
<tr><td>55</td><td>Write a function for finding a factorial of a given number. Give exception for invalid data entry.</td></tr>
<tr><td>56</td><td>Create a function to calculate total of table “STUDENT”.</td></tr>
<tr><td>57</td><td>Create a function to calculate Result.</td></tr>
<tr><td>58</td><td>Create a function that accepts the item_no from user and check whether item is available or not in stock table. If found return 1 else return 0. With proper message.</td></tr>
<tr><td colspan="2">Procedure</td></tr>
<tr><td>59</td><td>Create a procedure that accept grno and marks of three subjects and insert them into student table.</td></tr>
<tr><td>60</td><td>Create a procedure that accept grno of student and delete that record from the table.</td></tr>
<tr><td>61</td><td>Write a procedure CLIENT_CHECK that will accept a client number and will return 1 if found in the table and will return 0 if not found.</td></tr>
<tr><td>62</td><td>Input Exam_no, name and marks of five subjects for a student and calculate total, percentage and display grade using procedure.</td></tr>
<tr><td>63</td><td>Write a procedure to find total of first 100 odd numbers.</td></tr>
<tr><td>64</td><td>Create a procedure and update the student who has passed the current year.</td></tr>
<tr><td>65</td><td>Write a program to create procedure for calculate Net Salary.<br>EMP_TABLE(emp_no,emp_name,sal_amt,Basic_sal,Comm,Net_Salary)<br>Consider the following Rate.<br>Sal_amt Commission<br>Sal_amt <5000 2%<br>Sal_amt >=5000 Sal_amt<7000 5%<br>Sal_amt >=7000 Sal_amt < 9000 8%<br>Sal_amt >9000 10%<br>Net_Salary=Basic_Salary + Commission</td></tr>
<tr><td>66</td><td>Create a procedure to update salary of an employee by passing increment value and employee number.</td></tr>
</table>

| | |
|---|---|
| **67** | Create a stored procedure that takes department name as a parameter and list all the employee name, job salary, their manager name and location of their department. Raise appropriate exception is the employee is not exist in the table, |
| **68** | Create a stored procedure that takes job title and display all the employees name and their department name with their net salary. |
| **69** | Create a procedure that change name in small letters by passing employee number to the procedure. Raise appropriate exception is the employee is not exist in the table. |
| **Package** | |
| **70** | Create a a package with two procedure :<br>Table : RSLT(sno,maths,science,english,tot,per)<br>Procedure : addnewrecord in RSLT<br>Procedure :Delrecord form RSLT |
| **71** | Create package with procedure and function as specified below:<br>Function: Accept deptno and returns total no of employee in department.<br>Procedure: Calls function and based on returned total no. of employee, it displays message as<br>- Small department(if total employee<=10)<br>- Large department(if(total employees>10)<br>- Department empty (if(no employee in department) |