

GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Computer Applications (Integrated) Year II – (Semester-III) (w.e.f. July 2016) Practical List

Subject Name: DBMS-II (PL/SQL)

Subject Code: 4430604

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- 1 **Employee_master** (EmpCode, Emp_Name, Dept_Id, Emp_Address, DOB, Basic_Salary)
 Department_master (Dept_Code, Dept_Name)

Create a PL/ SQL block to prepare report in the following format:
Display the salary slip for the employee in the following format, whose
Employee

Code is provided by the user.

Salary Slip for the month March 2017.

Employee Code: <E102> Employee Name: <John Smith>

Department Name: <Finance>

Basic Salary DA HRA Medical P.F.

Deductions:

Total Salary : _____

Note:

HRA is 15% of basic salary

DA is 30% of basic salary

Medical is 1% of basic salary

P.F. is 10% of basic salary

- 2 **Competition** (Comp_code, Comp_name (Dancing, Painting, GK, etc.))
 Participants (Part_no, Part_name, DOB, Address, EmailID, Contact_number)
 Scorecard (Part_no, Comp_code, Judge_no [1, 2, 3], Marks)

a) Create a PL/ SQL block to prepare report in following format.

Display the score card in the following format, for the Participant whose
ID/ Name should be provided by the user.

Talent Winner 2011 ::: <Participant's Name>

Competition name Judge1 Judge2 Judge3

1. Painting
2. Dancing

Total Marks: _____

- 3 **Customer** (Cust_Id, Cust_Name, Cust_Addr, Cust_City, EmailID, Contact_No)
Magazine (Mag_Id, Mag_Name, Unit_Rate, Type_of_subscription[weekly, monthly, etc.])

Subscription (Cust_Id, Mag_Id, start_date, end_date)

- a) Create a function to return No. of customers in city Gandhinagar who have subscribed the magazine 'Outlook' after August 2010. If no such customer exists, throw a user defined exception with appropriate message.
- b) Create a trigger that is fired after an INSERT statement is executed for the Customer table. The trigger writes the new customer's code, name and the sysdate in a table called Customer_Log.(create the table Customer_Log)

- 4 **Account** (ac_no, ac_name, act_type)

Transaction (ac_no, trans_date, tran_type, tran_amount, balance)

Note: Act_type may be 'S' for saving or 'C' for current and tran_type may be 'D' for deposit or 'W' for withdrawal

- a) Create a trigger not allowing insertion, deletion or updation on Saturday and before 8:00 AM & after 6:00 PM on Account table.
- b) Create a package for the following :
Create a function to return the current balance for a given account number.

- 5 **Supplier** (sid, sname, contactnum)

Parts (pid, pname, color, unit rate)

Catalog (sid, pid, qty)

- a) Create a PL/ SQL block to prepare invoice in following format.

Display the invoice in the following format. Use parameterized cursor.

Invoice ::: <Supplier's Name>

Part Id Part Name Quantity Unit Price Total Price

Total: _____

- b) Create a PLSQL block

Part Details as of 1st Mar 2017

Part Id	Part Name	Quantity (on Hand)	Unit Price
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Total Parts Available: <Total Count>

- 6 **Sailor** (sid, sname, rating (0-10), DOB)

Boat (bid, bname, color)

Reserve (sid, bid, date)

- a) Create a parameterized cursor to display the sailor details who have reserved any boat after November 2010. If no record found, throw an user defined exception with appropriate message.
- b) Create a function that get the Boat code from the user. Display the sailor_code who have reserved this boat code. Raise an exception if no information for boat/sailor exists.
- c) Create a trigger that checks the 'Boat Code' must start with 'B' whenever an insertion is tried to be done. Raise a user defined exception if the rule is violated.
- d) Create a procedure that get the Sailor Code from the user and check whether that Sailor was born in a leap year or not. If the given sailor code does not exist, throw a user defined exception with appropriate message.

7 **Movie** (movie_id, movie_name, date_of_release)

Screen (screen_id, location, max_capacity)

Current (movie_id, screen_id, date_of_arrival, date_of_closure)

Note:

Value of screen_id must with letter 'S'.

Screen location can by any one of 'FF', 'SF', and 'TF'.

Date_of_arrival must be less than Date_of_closure.

Max_capacity attribute should have a value greater than 0.

- a) Create a trigger that is fired after an INSERT statement is executed for the Movie table. The trigger writes the new movie's code, movie name and the sysdate in a table called Movie_Log.(create the table Movie_Log)
- b) Create a function that get the Screen Code from the user and displays the movie name currently screened on it. If the given screen code does not exist, throw a user defined exception with appropriate message.

8 **Competition** (Comp_code, Comp_name (Dancing, Painting, GK, etc.))

Participants (Part_no, Part_name, DOB, Address, EmailID, Contact_number)

Scorecard (Part_no, Comp_code, Judge_no [1, 2, 3], Marks)

- a) Create a parameterized cursor to display the total score scored by each student with the competition details, the competition event name have to be supplied as the parameter. If the given event does not exist, throw a user defined exception with appropriate message.
- b) Create a trigger that checks the 'Competition Code' must start with 'CMP' whenever an insertion is tried to be done. Raise an user defined exception if the rule is violated.

9 **Account** (ac_no, ac_name, act_type)

Transaction (ac_no, trans_date, tran_type, tran_amount, balance)

Note: Act_type may be 'S' for saving or 'C' for current and tran_type may be 'D' for deposit or 'W' for withdrawal.

- a) Create a trigger not allowing insertion, deletion or updation on Saturday and before 8:00 AM & after 6:00 PM on Account table.
- b) After every 6 months all the customers are given 5% interest. So for current date, give interest of 6% to all the customers whose balance are greater than or equal to 2000 and interest of, on their balance.

10 Patient (Patient_code, Patient_name, Address, City, DOB, Gender)

Create a PL/SQL block to generate the following report:
Gender (Patients in Age group)

	1-20	21-40	41-60	61-80	81-100	Total
Male						
Female						
Total						

11 SubjectMaster (Sub_code, Sub_name)
StudentMaster (Roll_no, Stud_Name, Gender, DOB, Address)
Result (Roll_No, Sub_code, Marks)

Create a PL/SQL block to generate the marksheets subject wise according to the following format:

	100-90	90-80	80-70	70-60	60-50	<50
Sub Code:						
Sub Name:						
Total (in each group):						

11 Item_master(Item_Cd, Item_Name, Item_Price)
Item_received(Item_Cd, Month, Year, Day, Rec_Qty)
Item_stock(Item_Cd, Month,Year, Open_Stock, Rec_Qty, Close_Stock)

- a) Write triggers that affect Item_stock table for the insert, update and delete on Item_received table.
- b) Write a procedure to accept Item Name as input. If it exists, then display the Item Price otherwise display the proper message through the use of exception.

12 Dept_master (Dept_Id, Dept_Name)
Course_master (Dept_Id, Course_Id, Course_Name)
Strength_Master (Dept_Id, Course_Id, Max_Stud_Allow)

Stud_Det (Dept_Id, Course_Id, Stud_No, Stud_Name)

a) Create a package which contains the following procedures.

1. Create a Procedure which takes Department name as an argument and returns the courses in that department and Maximum student allow in that course.
2. Create a Function which takes Department name and Course name as an argument and return the total number of students registered in that department for that course

13 Weather (City_Id, Name of city, Temperature, Humidity)

- a) Write a function which accepts the name of city & returns the Temperature & Humidity. Also handle an exception if name of city does not exist.
- b) Write a trigger before update on weather for each row if new temperature > 50 then give the message otherwise update the value.

14 Item Master (Item Code, Item Name, Price, Unit)

Stock (Item Code, Purchased Qty, Sold Qty)

- a) Write a trigger before update for each row not allowing to update if Sold Qty > Purchased Qty.
- b) Write a procedure to insert the new record in Item Master table. If Item is already exist then raise the exception.

15 Employee Master (Emp_Code, Emp_Name, Birth_Date)

Department Master (Dept_Code, Dept_Name, Budget)

Salary (Dept_Code, Emp_Code, Salary)

- a) Write a trigger before insert new row into salary table for constraint "Total salary for department is not exceeding the budget".
- b) Write a function which accept the Employee Name as an argument and return the salary of that employee. If employee name does not exists then raise the exception.