**DBMS Lab Assignment-5**

**Date Given : 20-March-2020 Submission Date : 30-March-2020**

**Instructions for Submission:**

You will be uploading your assignment in a single word file on LMS with the question assigned to you (as per assignment-2) , answer and screenshots of outputs.

**Set 1 Hotel Management System**

**Customer**

|  |  |  |  |
| --- | --- | --- | --- |
| **Cno** | **Title** | **Name** | **Zip** |
| C1 | Mr. | Amar | 380008 |
| C2 | Ms. | Bina | 380026 |
| C3 | Mrs. | Diana | 380001 |
| C4 | Mr. | Jatin | 380009 |
| C5 | Mr. | Akbar | 380008 |

**Hotel**

|  |  |  |  |
| --- | --- | --- | --- |
| **Hno** | **h\_name** | **Zip** | **Location** |
| H1 | Inder Residency | 380026 | Ahmedabad |
| H2 | Prithvi | 380024 | Ahmedabad |
| H3 | Cama | 380001 | Ahmedabad |

**Room**

|  |  |  |
| --- | --- | --- |
| **Rno** | **Type** | **Price** |
| R1 | Deluxe | 1500 |
| R2 | Semi deluxe | 2000 |
| R3 | Single | 1000 |

**Reservation**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Res\_no** | **Cno** | **Hno** | **Rno** | **Arrival date(in)** | **Departure date(out)** |
| Res1 | C1 | H1 | R1 | 27/1/20 | 30/1/20 |
| Res2 | C2 | H3 | R2 | 24/1/20 | 27/1/20 |
| Res3 | C3 | H2 | R3 | 24/1/20 | 26/1/20 |
| Res4 | C1 | H1 | R3 | 27/1/20 | 28/1/20 |
| Res5 | C2 | H1 | R2 | 29/1/20 | 31/1/20 |

**City**

|  |  |
| --- | --- |
| **Name** | **State** |
| Ahmedabad | Gujarat |
| Rajkot | Gujarat |
| Vadodara | Gujarat |

1.       Write a pl sql block which display the details of customer for inputted customer number.

2.       Write a pl sql block which will display the details of reservation details between two inputted dates.

3.       Write a procedure which will display details of rooms.

4.       Write a procedure to display hotel-wise booking details in the following format.

Hotel Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Customer Name Room Type Arrival Date Total Stay (in days)

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Total no. of bookings (customers) : \_\_\_\_\_\_\_\_\_\_\_\_

Hotel Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Customer Name Room Type Arrival Date Total Stay (in days)

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Total no. of bookings (customers) : \_\_\_\_\_\_\_\_\_\_\_\_

5.       Write a procedure to display detail of hotels.

6.       Write a procedure which removes the record from reservation table for inputted res\_no.

7.       Write a procedure which increases the room price by 0.5% for inputted room type.

8.       Write a function which displays total number of rooms by its type.

9.       Write a function which will return room type with least price.

10.   Write a function to input room type and return price of that room.

11.   Write a function which will display total no of reservations between two inputted dates.

12.   Write a function which displays the details of total number of customers.

**Set-2 Hospital Management System**

**Nurse**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emp\_id** | **Name** | **Position** | **Registered** |
| E1 | Amy | Head | Yes |
| E2 | Blessy | Warden | Yes |
| E3 | Rosy | Incharge | Yes |
| E4 | Mona | Trainee | No |
| E5 | Alexa | Staff | No |

**Physician**

|  |  |  |
| --- | --- | --- |
| **Phy\_id** | **Name** | **Position** |
| P1 | Stefan | Permanent |
| P2 | Chirag | Visiting |
| P3 | Kamal | Contractual |
| P4 | Alvin | Permanent |

**Department**

|  |  |  |
| --- | --- | --- |
| **Dept\_id** | **Dept\_name** | **Head** |
| D1 | Gynacology | Chirag |
| D2 | Pediatrician | Kamal |
| D3 | Anesthetic | Stefan |
| D4 | General | Alvin |

**Appointment**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Ap\_id** | **Patient** | **Phy\_id** | **Dept\_id** | **Emp\_id** | **Rno** | **Time** |
| A1 | Rajan | P4 | D4 | E5 | R1 | 10 |
| A2 | Sujata | P2 | D1 | E3 | R4 | 9 |
| A3 | Amir | P3 | D2 | E4 | R3 | 12 |
| A4 | Rekha | P2 | D1 | E2 | R4 | 9:15 |
| A5 | Sundar | P1 | D3 | E1 | R2 | 11 |

**Room**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rno** | **Type** | **Floor** | **Availability** |
| R1 | General | 1 | Yes |
| R2 | Special | 2 | Yes |
| R3 | Semi Special | 2 | Yes |
| R4 | General | 1 | No |

1. Write a pl sql block which display the detail of Nurse table for inputted employee name.
2. Write a pl sql block which display the detail of Physician table for inputted phy is.
3. Write a procedure which display details of departments for inputted dept id.
4. Write a procedure which display room details for inputted room number.
5. Write a procedure which displays department-wise report in the following format.

Department name:\_\_\_\_\_\_\_\_\_\_\_\_\_

Patient Name Physician Name

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Total \_\_\_\_\_\_\_\_\_\_\_\_patients are treated in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_department.

Department name:\_\_\_\_\_\_\_\_\_\_\_\_\_

Patient Name Physician Name

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Total \_\_\_\_\_\_\_\_\_\_\_\_patients are treated in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_department.

1. Write a procedure which removes the record from appointment table for inputted appointment id.
2. Write a procedure which removes the record of Appointment table with input ap\_id.
3. Write a procedure which display department-wise position-wise physician detail.
4. Write a function which returns total no. of rooms available when use inputs floor no and room type.
5. Write a function which returns patient name for inputted appointment ID.
6. Write a function which returns the message “Registered” or “Not Registered” if user inputs employee name.
7. Write a function which returns total number of physicians.

**Set-3 Education Management System**

**Emp**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Emp\_no** | **Emp\_name** | **Joindate** | **Dept\_no** | **City** |
| E1 | Nila | 3/4/2012 | D1 | Ahmedabad |
| E2 | Ketan | 5/6/2014 | D2 | Ahmedabad |
| E3 | Denish | 7/8/2016 | D3 | Rajkot |
| E4 | Raj | 9/5/2018 | D4 | Vadodara |

**Branch**

|  |  |  |  |
| --- | --- | --- | --- |
| **B\_no** | **B\_name** | **Student** | **Course** |
| B1 | Electrical | 120 | BTech |
| B2 | Chemical | 60 | BTech |
| B3 | Computer | 120 | BTech |
| B4 | Computer | 60 | MTech |

**Student**

|  |  |  |  |
| --- | --- | --- | --- |
| **Roll\_no** | **Name** | **Course** | **B\_no** |
| R1 | Sem | BTech | B1 |
| R2 | Riyan | BTech | B1 |
| R3 | Ekta | BTech | B1 |
| R4 | Jacky | BTech | B3 |
| R5 | Jim | MTech | B4 |
| R6 | Alvin | Mtech | B4 |

**Result**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Roll\_no** | **B\_no** | **Year** | **Semester** | **SPI (Semester Performance Index)** |
| R1 | B1 | 1 | 1 | 3.4 |
| R1 | B1 | 1 | 2 | 3.6 |
| R2 | B1 | 2 | 3 | 2.9 |
| R2 | B1 | 2 | 4 | 3.8 |
| R3 | B1 | 3 | 5 | 2.9 |
| R4 | B3 | 3 | 6 | 3.1 |

**Department**

|  |  |
| --- | --- |
| **Dept\_no** | **Dept\_name** |
| D1 | Engineering |
| D2 | Management |
| D3 | Administration |
| D4 | Computer |

1. Write a PLSQL block which will display the details of employee whose name is inputted.
2. Write a PLSQL block which will display course-wise branch-wise details of students in the following format.

Course name : \_\_\_\_\_\_\_\_\_\_\_\_

Branch name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RollNo Student Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total no. of students :\_\_\_\_\_\_\_\_\_\_

Course name : \_\_\_\_\_\_\_\_\_\_\_\_

Branch name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RollNo Student Name

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total no. of students :\_\_\_\_\_\_\_\_\_\_

Overall Total no. of Students : \_\_\_\_\_\_\_\_\_\_\_\_

1. Write a procedure which displays details of employees for the inputted department.

Department Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Employee Name Joining date No. of Years of experience

(in format dd Month, yyyy)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write a procedure which displays details of result in descending order of SPI and ascending order student name.
2. Write a procedure which displays grades of the students with student names.

If student SPI >=3 Grade=A, if SPI<3 and >=2 Grade=B, if SPI<2 and >=1 Grade=C else Grade=D

1. Write a procedure which removes the record from result table for inputted Roll\_no.
2. Write a procedure which displays course-wise total no. of students enrolled.
3. Write a function which returns total number of employees joined in the inputted year.
4. Write a function which takes from date and to date as input and will return total no. of employees who joined between these two dates.
5. Write a function which will take city name as input and will return total no. of employees of that city.
6. Write a function which will take branch name as input and will return total number of students of that branch.
7. Write a function which will take employee name as an input and will return department name in which employee is working.

**Set-4 Library Management System**

**Publisher**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr\_no** | **Name** | **Address** | **Phone** |
| 1 | Arihant | Ahmedabad | 9987623488 |
| 2 | Evergreen | Bavla | 9876543210 |
| 3 | Techmax | Gandhinagar | 9576937405 |
| 4 | Pearson | Rajkot | 9793859937 |

**Book**

|  |  |  |  |
| --- | --- | --- | --- |
| **B\_id** | **Area** | **Name** | **Publisher** |
| B1 | Computer | Database | Arihant |
| B2 | Computer | HTML | Evergreen |
| B3 | Computer | Data Structure | Techmax |
| B4 | Science | Biology | Arihant |
| B5 | Science | Chemistry | Evergreen |

**Branch**

|  |  |  |
| --- | --- | --- |
| **Br\_id** | **Br\_name** | **Address** |
| Br1 | Engineering | Ahmedabad |
| Br2 | Management | Ahmedabad |
| Br3 | Science and Arts | Ahmedabad |

**Borrower**

|  |  |
| --- | --- |
| **Card\_no** | **Name** |
| C1 | Abhay |
| C2 | Semual |
| C3 | Jimmy |
| C4 | Gita |
| C5 | Akhil |

**Lending**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **B\_id** | **Br\_id** | **Card\_no** | **Issuedate** | **Duedate** |
| B1 | Br1 | C4 | 11/1/2020 | 20/1/2020 |
| B2 | Br1 | C2 | 1/12/2019 | 10/12/2019 |
| B3 | Br1 | C1 | 20/1/2020 | 30/1/2020 |
| B4 | Br3 | C3 | 15/1/2020 | 25/1/2020 |

1. Write a PLSQL block which takes city as an input and displays publisher details of that city.
2. Write a PLSQL block which displays the book details of inputted book id.
3. Write a procedure which displays area-wise publisher-wise book names in the following format.

Area : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Publisher : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Book Name

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Total no of books of publisher \_\_\_\_\_\_\_\_\_\_ : \_\_\_\_\_\_\_\_\_\_\_\_

Publisher : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Book Name

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Total no of books of publisher \_\_\_\_\_\_\_\_\_\_ : \_\_\_\_\_\_\_\_\_\_\_\_

Total publishers in the area \_\_\_\_\_\_\_\_\_\_\_\_\_ are : \_\_\_\_\_\_\_\_\_\_\_

1. Write a procedure which displays book lending details between two inputted issue\_dates.
2. Write a procedure which displays city-wise list of publishers. Also, display city name in which there are highest no. of publishers.
3. Write a procedure which removes the record from Book table for inputted b\_id and related records from child table also.
4. Write a procedure which will display details of borrowers along with the book borrowed by him/her.
5. Write a function which returns total number of branches for inputted city.
6. Write a function which takes year as input and returns total no of books issued in that year.
7. Write a function which returns total number of books published by inputted publisher.
8. Write a function to input area and return total no of books of that area.
9. Write a function which takes publisher name as input and returns address and contact no of that publisher.

**Set-5 Project Management System**

**Project**

|  |  |  |  |
| --- | --- | --- | --- |
| **Pro\_id** | **P\_Name** | **Loc\_id** | **Dept\_id** |
| P1 | Product X | L5 | D5 |
| P2 | Product Y | L3 | D4 |
| P3 | Product Z | L1 | D1 |
| P4 | Product W | L4 | D3 |
| P5 | Product A | L2 | D2 |

**Emp**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Emp\_no** | **Emp\_name** | **Dept\_no** | **Joining\_date** | **Salary** |
| E1 | Clare | D1 | 5-Jan-02 | 70000 |
| E2 | John | D2 | 6-Mar-06 | 80000 |
| E3 | Sam | D3 | 9-Feb-07 | 50000 |
| E4 | Jack | D5 | 10-Dec-08 | 50000 |
| E5 | Jill | D4 | 12-May-09 | 70000 |

**Location**

|  |  |
| --- | --- |
| **Loc\_id** | **City** |
| L1 | Ahmedabad |
| L2 | Vadodara |
| L3 | Gandhinagar |
| L4 | Surat |
| L5 | Rajkot |

**Department**

|  |  |  |
| --- | --- | --- |
| **Dept\_id** | **Dept\_Name** | **Loc\_id** |
| D1 | Engineering | L1 |
| D2 | Management | L2 |
| D3 | Arts | L3 |
| D4 | Science | L5 |
| D5 | Research | L4 |

**Works\_on**

|  |  |
| --- | --- |
| **Pro\_id** | **Hours** |
| P5 | 12 |
| P1 | 5 |
| P2 | 7 |
| P3 | 30 |
| P4 | 40 |

1. Write a PLSQL block which displays the detail of Products.
2. Write a PLSQL block which displays department-wise employee details in the following format.

Department Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Employee Name Joining Date Salary

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total no of employees in department \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_

Department Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Employee Name Joining Date Salary

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total no of employees in department \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_\_\_

Overall total no of employees : \_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write a procedure which will take location as input and display details of projects in that location.
2. Write a procedure which will display project name, location, department name and total hours in ascending order of location, descending of department and ascending order of project name.
3. Write a procedure which will display details of employees whom have joined the company in the inputted month.
4. Write a procedure which removes the record of Employee (and related records from child table if any) for inputted Emp\_no.
5. Write a procedure to increase the salary of the employees as per the following rules.

Increase salary by 5% of those employees who have joined between Jan 2018 and March 2020, increase salary by 7% who have joined between Jan 2016 and Dec 2017, increase salary by 10% who have joined between Jan 2013 and Dec 2015, increase salary by 12% who have joined between Jan 2010 and Dec 2012, else 15% increment to be given.

1. Write a function which returns total no. of projects for inputted value of city.
2. Write a function which returns name of the project when pro\_id is inputted.
3. Write a function which returns names of the employees whose salary is more than average salary of the company.
4. Write a function which returns total salary for inputted department name.
5. Write a function which returns total no. of years of experience for the inputted employee name.