**DBMS Lab Assignment-6**

**Date Given : 03-April-2020 Submission Date : 13-April-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 |
| Res6 | C3 | H3 | R1 |  |  |
|  |  |  |  |  |  |

**City**

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

1) Create a trigger before insert on city table. If the state is empty in city table then insert the state as Gujarat.

2) Create a trigger before insert on room table. If the room no duplicates in Room table then raise application error.

3) Create a trigger before insert on Reservation table. If the arrival date is missing in Reservation table then update the arrival date with current date and departure date is arrival date + 2 days.

4) Create a trigger to delete child records from Reservation table if room details are deleted from Room table,

5) Create a trigger which will display total records remaining in Hotel table when any record is deleted from Hotel table.

**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 |
| P5 | Alex |  |

**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 |
| A6 | Suraj | P1 | D3 | E1 | R1 |  |
| A7 | Lina |  |  |  |  |  |

**Room**

|  |  |  |  |
| --- | --- | --- | --- |
| **Rno** | **Type** | **Floor** | **Availability** |
| R1 | General | 1 | Yes |
| R2 | Special | 2 | Yes |
| R3 | Semi Special | 2 | Yes |
| R4 | General | 1 | No |
| R5 | General |  |  |

**Create trigger**

1. Create a trigger on Appointment table. If the appointment time is empty then insert time as 10.
2. Create a trigger on Nurse table. Check emp\_id. If first letter of emp\_id is not ‘E’, don’t allow to insert that record.
3. Create a trigger which will keep track of DML operation done on Appointment table in some other table.
4. Create a trigger on Room table. If the floor and availability in new record is empty then raise application error and update the floor by 1 and availability “Yes”.
5. Create a table which will update Room no. in Appointment table is Room no. is updated in Room table.

**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 |
| B5 | Computer | 60 |  |

**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 |
| R5 | B2 | 4 | 7 | 2.0 |

**Department**

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

1. Create a trigger that will be fired if user tries to input dept\_no with first letter other than ‘D’.
2. Create a trigger to delete child records from Result table if parent record is deleted from Student table.
3. Create a trigger which will not allow to enter null value in the student name.
4. Write a trigger which will not allow to manipulate records of result table on Sunday and on Saturday after 5 pm.
5. Write a trigger which will display total no. of students in the specific branch when a new record is inserted in the Branch table.

**Set-4 Library Management System**

**Publisher**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr\_no** | **Name** | **Address** | **Phone** |
| 1 | Arihant | Ahmedabad | 9987623488 |
| 2 | Evergreen |  | 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 |
| C6 |  |

**Lending**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **B\_id** | **Br\_id** | **Card\_no** | **Issuedate** | **Duedate** |
| B1 | Br1 | C4 | 10/1/2020 | 21/1/2020 |
| B2 | Br1 | C2 | 1/12/2019 | 11/12/2019 |
| B3 | Br1 | C1 | 20/1/2020 | 30/1/2020 |
| B4 | Br3 | C3 | 15/1/2020 | 30/1/2020 |
| B5 | Br2 | C5 |  |  |
| B6 | Br2 | C6 |  |  |

1. Write a trigger on Lending table. If user inserts null in issue date, update it with current date and set due date by adding 10 days in issue date.
2. Write a trigger to display remaining no. of books of a particular area when any record is deleted from Book table.
3. Write a trigger to delete child records from Lending table when parent record is deleted from Book table.
4. Write a trigger to check whether borrower name is null. If it is null, display appropriate error message.
5. Write a trigger to generate sr no. automatically when new record is inserted in publisher table.

**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 |
| E6 | Mavis | D1 |  | 65000 |

**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** | **Bonus** |
| P5 | 12 |  |
| P1 | 5 |  |
| P2 | 7 |  |
| P3 | 30 |  |
| P4 | 40 |  |

1. Create a trigger on Emp table which will be fired when user inserts or updates any record. Check value in salary field which is to be inserted or updated. If salary < 5000 display error message that minimum salary should be Rs. 5000.
2. Create a trigger which will display total no. of years of experience when new record is inserted or a record is updated in the Emp table.
3. Create a trigger on works\_on table which will calculate bonus field on the basis of work hours and insert or update the value of bonus field accordingly. If work hours < 5 then bonus=0. If work hours >= 5 and <10 then bonus=1000. If work hours >= 10 and <20 then bonus=2000. If work hours >= 20 and <3010 then bonus=3500. In all other cases, bonus=5000.
4. Create a trigger which will not allow any DML (insert, delete, update) operation on Sunday before 8 am and after 5 pm.
5. Create a trigger which will update location id in Department table if location id is updated in Location table.