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|  | **Assignment No. 03 SEMESTER Spring 2021 (Solution)**  **CS403- Database Management System** | **Total Marks: 20**  **Due Date:27-07-2021** |
| Objectives The objective of this assignment is   * To be able to understand relational data model * To map ER diagram to relational data model * To be able to understand the syntax of SQL commands   **Entity Relationship diagram:**    **You are now required to perform the following tasks according to above scenario.**   1. Map the ER diagram to Relational data model and link the relations through primary key and foreign key. 2. After mapping ERD to relational data model, you are required to write the SQL commands for each of the following statements. 3. Create a table named MessBill. You also have to define primary key and foreign key (if any). 4. Change the name of column from **Amount** to **billAmount** in MessBill table. 5. Insert one record in Admin table having data against each column (ID: emp01, name: Ahmad, Gender: Male, email: ahmad@gmail.com, contact: 03001234567). 6. Delete all rows of table named Student. 7. Show the student id and student name of all female students.   **Solution:**  **a)**  **Relations after applying mapping rules:**  **Visitor** (vis\_ID, vis\_name, vis\_Gender, vis\_CNIC, vis\_address, vis\_email, vis\_contact, emp\_ID)  **Student** (stu\_ID, stu\_name, stu\_Gender, stu\_CNIC, stu\_address, stu\_email, stu\_contact, stu\_allocatedRom, visitors\_detail)  **Visitor\_Student**(stu\_ID, vis\_ID)  **Admin** (emp\_ID, Ad\_name, ad\_Gender, ad\_email, ad\_contact)  **Fee\_voucher** (vo\_ID, Date, amount, Details, emp\_ID, stu\_ID)  **Hostel\_Staff**(emp\_ID, hs\_name, hs\_Gender, hs\_Role, hs\_contact, hs\_email)  **Attendance** (att\_ID, Date, Time, bill\_ID, hw\_ID, stu\_ID, emp\_ID)  **Complaints**(comp\_ID, Type, Date, Time, Details,stu\_ID,hw\_ID,)  **MessBill**(bill\_ID, Date, Time, Amount, emp\_ID)  **Hostel\_Warden** (hw\_ID, hw\_name, hw\_Gender, hw\_contact, hw\_email, hw\_address)    **b)**   1. Create a table named MessBill. You also have to define primary key and foreign key (if any).   CREATE TABLE MessBill (bill\_IDvarchar(10)PRIMARY KEY, Date date, Time time, Amount double, emp\_ID varchar (10) FOREIGN KEY REFERENCES Admin (emp\_ID));   1. Change the name of column from **Amount** to **billAmount** in MessBill table.   ALTER TABLE MessBill RENAME COLUMN Amount TO billAmount;   1. Insert one record in Admin table having data against each column (emp\_ID: emp01, Ad\_name: Ahmad, ad\_Gender: Male, ad\_email: ahmad@gmail.com, ad\_contact: 03001234567).   INSERT INTO Admin (emp\_ID, Ad\_name, ad\_Gender, ad\_email, ad\_contact) VALUES (‘emp01’, ‘Ahmad’, ‘Male’, ‘ahmad@gmail.com’,03001234567);   1. Delete all rows of table named Student.   TRUNCATE TABLE Student;  OR  DELETE FROM Student;   1. Show the student id and student name of female students.   SELECT stu\_ID, stu\_name FROM Student WHERE stu\_Gender = ‘female’; | | |
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