



SWE1004 - (L 9 + L10)

Lab Sheet 3
Integrity Constraints

Name: Dishant Naik
Reg no.: 21MIA1127

Important guidelines to be followed

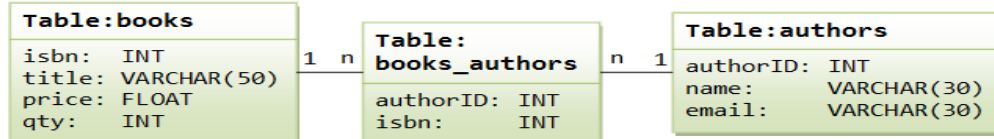
- **Every table created should have the last four digits of your registration number together with the table name(eg:emp_1021)**
- **Insert records for each table as per the requirements of the query.**
- **No query must return an answer "No rows found"**
- **Upload a *PDF* document with**
 - *the screenshots of tables created, Records of the tables,*
 - *SQL queries with answers*

Exercise: SQL - Integrity Constraints

Create the following tables and apply constraints as follows

1. Books Table:
 - a. isbn - primary key
 - b. title
 - c. price
 - d. qty - not null
2. Authors Table:
 - a. authorId - primary key
 - b. email - unique
3. Book_Authors:
 - a. isbn - foreign key references books table
 - b. authorId - foreign key references authors table

Database: mybookstore



books			
isbn	title	price	qty
1001	Java for Dummies	11.11	11
1002	Only Java	22.22	22
1003	Java ABC	33.33	33
1004	Java 123	44.44	44

books_authors		
authorID	isbn	
1	1001	
2	1001	
3	1001	
1	1002	
3	1002	
2	1003	
2	1004	

authors		
authorID	name	email
1	Tan Ah Teck	teck@nowhere.com
2	Mohamed Ali	ali@somewhere.com
3	Kumar	kumar@abc.com
4	Kelvin Jones	kelvin@xzy.com

Write SQL Queries for the following:

Constraints:

1. Add unique constraint to title in books table
2. Add not null constraint to price in books table
3. Alter not null constraint in price attribute in books table and set the check constraint so that value is greater than 0.0
4. Drop not null constraint for qty in books table
5. Set a default value of qty in books table as 0
6. Drop unique constraint for email attribute in authors table
7. Drop any one foreign key constraint.
8. Drop a primary key [after referenced foreign key is dropped]
9. Add an attribute for authors table and set a constraint for it.

ANSWER:

```

SQL> select *
  2 from authors_21MIA1127;

AUTHORID NAME                                EMAIL
-----
1 Tan ah Teck                                teck@nowhere.com
2 Mohamed Ali                                ali@somewhere.com
3 Kumar                                        kumar@abc.com
4 Kelvin Jones                                kelvin@xzy.com

SQL> select *
  2 from books_21MIA1127;

ISBN TITLE                                PRICE
-----
1001 java for dumies                        11.11
11
1002 only java                             22.22
22
1003 java ABC                              33.33
33

ISBN TITLE                                PRICE
-----
1004 java 123                              44.44
44
  
```

1.

```
SQL> alter table books_21MIA1127
  2  add unique (title)
  3  ;
```

Table altered.

2.

```
SQL> alter table books_21MIA1127
  2  modify price float not null unique;
```

Table altered.

3.

```
SQL> alter table books_21MIA1127
  2  add check(price>0)
  3  ;
```

Table altered.

4.

```
SQL> alter table books_21MIA1127
  2  modify qty int
  3  ;
```

Table altered.

5.

```
SQL> alter table books_21MIA1127
  2  modify qty int default'0'
  3  ;
```

Table altered.

6.

```
SQL> alter table authors_21MIA1127
  2  modify email varchar(30);
```

Table altered.

7.

8.

```
SQL> alter table books_21MIA1127
  2  drop column isbn
  3  ;
```

Table altered.

9.

```
SQL> alter table authors_21MIA1127  
2 add review varchar(30) unique  
3 ;
```

Table altered.