

Name: Chea Senghak

ID: e20211624

Assignment tp data

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1 • CREATE DATABASE LibraryDB;
2 • use LibraryDB;
3
4 • create table BOOKS(
5     DocId int PRIMARY KEY auto_increment,
6     Title varchar(255) NOT NULL,
7     Publisher varchar(255),
8     Year int
9 );
10
11 • CREATE TABLE STUDENTS(
12     StId int primary KEY auto_increment,
13     StName varchar(255) Not null,
14     Major varchar(100),
15     Age int
16 );
17
18 • CREATE TABLE AUTHORS(
19     AName varchar(255) PRIMARY KEY,
20     Address varchar(255)
21 );
22
23
24 • CREATE TABLE borrowS(
25     DocId int auto_increment,
26     StId int not null,
27     Date date not null,
28     FOREIGN KEY(StId) REFERENCES STUDENTS(StId),
29     PRIMARY KEY(DocId,Date,StId)
30 );
31 • DESCRIBE borrowS;
32 • ALTER TABLE borrowS modify DocId int;
33
34 • CREATE TABLE has_written(
35     DocId int,
36     AName varchar(255),
37     FOREIGN KEY(DocId) REFERENCES Books(DocId),
38     FOREIGN KEY (AName) REFERENCES Authors(AName)
39 );
40 • ALTER TABLE HAS_WRITTEN MODIFY DocId int not null;
41 • ALTER TABLE HAS_WRITTEN Modify AName varchar(255) not null;
42 • DESCRIBE HAS_WRITTEN;
43
44 • CREATE TABLE DESCRIBES(
45     DocId int,
46     keyword varchar(100) default("computer"),
47     FOREIGN KEY (docId) REFERENCES BOOKS(DocId),
48     PRIMARY KEY(docid,keyword)
49 );
50 • DESCRIBE BOOKS;
51 • ALTER TABLE DESCRIBES modify keyword varchar(100) default 'computer';
52 • SELECT *FROM information_Schema.columns where table_schema='librarydb';
53 • ALTER TABLE BOOKS add UNIQUE(Title);
54 • SELECT *FROM information_Schema.columns where table_schema='librarydb';
55 • ALTER TABLE borrowS ALTER date set default(current_date);
56 • describe BORROWS;

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57 • SELECT * FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS WHERE constraint_SCHEMA="librarydb";
58
59 • ALTER TABLE HAS_WRITTEN ADD PRIMARY KEY(docid,AName);
60 • ALTER TABLE BOOKS ADD CHECK(YEAR>1000 AND year<9999);
61 • describe BOOKS;
62 • ALTER TABLE BORROWS ADD FOREIGN KEY(DOCID) references BOOKS(DOCID);
63 • ALTER TABLE BORROWS DROP foreign key borrows_ibfk_4;
64 • SELECT *FROM INFORMATION_SCHEMA.KEY_COLUMN_USAGE
65 WHERE TABLE_NAME = 'BORROWS' AND TABLE_SCHEMA = 'librarydb' AND CONSTRAINT_NAME LIKE 'fk_%';
66 • select CONSTRAINT_NAME,TABLE_NAME,CONSTRAINT_TYPE FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS WHERE CONSTRAINT_SCHEMA="librarydb";
67 • ALTER TABLE borrows DROP foreign key borrows_ibfk_1;
68 • ALTER TABLE borrows DROP foreign key borrows_ibfk_2;
69 • ALTER TABLE Borrows add constraint fk_books foreign key (docid) references books(docid) on update cascade on delete restrict;
70 • SELECT * FROM INFORMATION_SCHEMA.REFERENTIAL_CONSTRAINTS WHERE CONSTRAINT_SCHEMA="librarydb";
71 • ALTER TABLE BORROWS ADD CONSTRAINT fk_stu foreign key (stid) references students(stid) on update cascade on delete restrict;
72 • ALTER table DESCRIBES DROP foreign key describes_ibfk_1;
73 • ALTER TABLE DESCRIBES ADD CONSTRAINT des_fk_borrows foreign key(docid) references books(docid) on update cascade on delete restrict;
74 • ALTER TABLE HAS_WRITTEN DROP foreign key HAS_written_ibfk_1;
75 • ALTER TABLE HAS_WRITTEN DROP foreign key HAS_written_ibfk_2;
76 • ALTER TABLE has_written ADD CONSTRAINT foreign key(DOCID) references books(docid) on update cascade on delete restrict;
77 • ALTER TABLE has_written ADD CONSTRAINT foreign key(AName) references authors(aname) on update cascade on delete restrict;
78

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TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	COLUMN_NAME	ORDINAL_POSITION	COLUMN_DEFAULT	IS_NULLABLE	DATA_TYPE	CHARACTER_MAXIMUM_LENGTH	CHARACTER_OCTET_LENGTH
def	librarydb	authors	Address	2	NULL	YES	varchar	255	1020
def	librarydb	authors	AName	1	NULL	NO	varchar	255	1020
def	librarydb	boats	bid	1	NULL	NO	int	NULL	NULL
def	librarydb	boats	Bname	2	NULL	NO	varchar	20	80
def	librarydb	boats	color	3	NULL	YES	enum	5	20
def	librarydb	books	DocId	1	NULL	NO	int	NULL	NULL
def	librarydb	books	Publisher	3	NULL	YES	varchar	255	1020

CONSTRAINT_CATALOG	CONSTRAINT_SCHEMA	CONSTRAINT_NAME	TABLE_SCHEMA	TABLE_NAME	CONSTRAINT_TYPE	ENFORCED
def	librarydb	PRIMARY	librarydb	authors	PRIMARY KEY	YES
def	librarydb	PRIMARY	librarydb	boats	PRIMARY KEY	YES
def	librarydb	PRIMARY	librarydb	books	PRIMARY KEY	YES
def	librarydb	Title	librarydb	books	UNIQUE	YES
def	librarydb	PRIMARY	librarydb	borrows	PRIMARY KEY	YES
def	librarydb	borrows_ibfk_1	librarydb	borrows	FOREIGN KEY	YES
def	librarydb	borrows_ibfk_2	librarydb	borrows	FOREIGN KEY	YES
def	librarydb	PRIMARY	librarydb	describes	PRIMARY KEY	YES

CONSTRAINT_CATALOG	CONSTRAINT_SCHEMA	CONSTRAINT_NAME	TABLE_CATALOG	TABLE_SCHEMA	TABLE_NAME	COLUMN_NAME	ORDINAL_POSITION	POSITION_IN_UNIQUE_CONSTRAINT
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CONSTRAINT_CATALOG	CONSTRAINT_SCHEMA	CONSTRAINT_NAME	UNIQUE_CONSTRAINT_CATALOG	UNIQUE_CONSTRAINT_SCHEMA	UNIQUE_CONSTRAINT_NAME	MATCH_OPTION	UPDATE_RULE
def	librarydb	borrows_ibfk_1	def	librarydb	PRIMARY	NONE	NO ACTION
def	librarydb	borrows_ibfk_2	def	librarydb	PRIMARY	NONE	NO ACTION
def	librarydb	describes_ibfk_1	def	librarydb	PRIMARY	NONE	NO ACTION
def	librarydb	fk_bid	def	librarydb	PRIMARY	NONE	CASCADE
def	librarydb	fk_sid	def	librarydb	PRIMARY	NONE	CASCADE
def	librarydb	has_written_ibfk_1	def	librarydb	PRIMARY	NONE	NO ACTION
def	librarydb	has_written_ibfk_2	def	librarydb	PRIMARY	NONE	NO ACTION

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52 • SELECT *FROM information_Schema.columns where table_schema='librarydb';
53 • ALTER TABLE BOOKS add UNIQUE(Title);
54 • SELECT *FROM information_Schema.columns where table_schema='librarydb';
55 • ALTER TABLE borrows ALTER date set default(current_date);
56 • describe BORROWS;
57 • SELECT * FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS WHERE constraint_SCHEMA="librarydb";

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def	librarydb	boats	Bname	2	NULL	NO	varchar	20	80
def	librarydb	boats	color	3	NULL	YES	enum	5	20
def	librarydb	books	DocId	1	NULL	NO	int	NULL	NULL
def	librarydb	books	Publisher	3	NULL	YES	varchar	255	1020