Assessment 1

Introduction to databases

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# Conceptual Schema



# Logical Relational Schema

AUTHOR (EmailID {PK}, FName, LName, Country, InstitutionID {FK})

INSTITUTION (InstitutionID {PK}, Name, Country)

PAPER (PaperID {PK}, CategoryID {FK}, Title, SubmissionDate)

PAPERAUTHOR (PaperID {FK}, EmailID {FK})

CATEGORY (CategoryID {PK}, Name)}

REVIEWER (ReviewerID {PK}, FName, LName, PhoneNo., Email, Country, InstitutionID {FK}, CategoryID {FK})

REVIEW (PaperID {FK}, Score, ReviewerID {FK}, EMailID, Feedback, Comments, ReviewDate)

REFERENCES

AUTHOR (Institution) -------------------🡪INSTITUTION (Name)

PAPER (Category) -------------------🡪CATEGORY(Name)

PAPERAUTHOR (PaperID) ----------------------🡪PAPER (PaperID)

PAPERAUTHOR (AuthorID) ----------------------🡪AUTHOR (AuthorID)

REVIEWER (InstitutionID) --------------------🡪INSTITUTION (InstitutionID)

REVIEWER (CategoryID) --------------------🡪 CATEGORY (CategoryID)

REVIEW (ReviewerID) -----------------------🡪REVIEWER (ReviewerID)

REVIEW (PaperID)-----------------------🡪PAPER (PaperID)

# SQL Plus

CREATE TABLE Institution

(InstitutionID NUMBER(10) NOT NULL,

Name VARCHAR2(50) NOT NULL UNIQUE,

Country VARCHAR2(50) NOT NULL,

PRIMARY KEY (InstitutionID));

CREATE TABLE Author

(EmailID VARCHAR(50) NOT NULL,

FName VARCHAR2(20) NOT NULL,

LName VARCHAR2(20) NOT NULL,

Country VARCHAR2(30) NOT NULL,

Institution VARCHAR2(50) NOT NULL,

PRIMARY KEY (EmailID));

CREATE TABLE Paper

(PaperID NUMBER(10) NOT NULL,

Title VARCHAR2(50) NOT NULL,

Abstract VARCHAR2(4000) NOT NULL,

SubmissionDate DATE NOT NULL,

Category VARCHAR2(20) NOT NULL,

PRIMARY KEY (PaperID));

CREATE TABLE PaperAuthor

(PaperID NUMBER(10) NOT NULL,

EmailID VARCHAR(50) NOT NULL);

CREATE TABLE Category

(CategoryID NUMBER(3),

Name VARCHAR2(20) NOT NULL UNIQUE,

PRIMARY KEY (CategoryID));

CREATE TABLE Reviewer

(ReviewerID NUMBER(20),

FName VARCHAR2(20) NOT NULL,

LName VARCHAR2(20) NOT NULL,

PhoneNo NUMBER(20) NOT NULL,

Email VARCHAR2(50) NOT NULL,

Country VARCHAR2(50) NOT NULL,

Institution VARCHAR2(50) NOT NULL,

Category VARCHAR2(20) NOT NULL,

PRIMARY KEY (ReviewerID));

CREATE TABLE Review

(PaperID NUMBER(10) NOT NULL,

Score NUMBER(1) CHECK (Score <= 5) NOT NULL,

ReviewerID NUMBER(20),

EmailID VARCHAR(50) NOT NULL,

Feedback VARCHAR2(750),

Comments VARCHAR2(300),

ReviewDate DATE NOT NULL);

ALTER TABLE Author

ADD FOREIGN KEY (Institution) REFERENCES Institution (Name);

ALTER TABLE Paper

ADD FOREIGN KEY (CategoryID) REFERENCES Category (Name);

ALTER TABLE PaperAuthor

ADD FOREIGN KEY (PaperID) REFERENCES Paper (Title);

ALTER TABLE PaperAuthor

ADD FOREIGN KEY (EMailID) REFERENCES Author (EmailID);

ALTER TABLE Reviewer

ADD FOREIGN KEY (InstitutionID) REFERENCES Institution (InstitutionID);

ALTER TABLE Reviewer

ADD FOREIGN KEY (CategoryID) REFERENCES Category (CategoryID);

ALTER TABLE Review

ADD FOREIGN KEY (PaperID) REFERENCES Paper (PaperID);

ALTER TABLE Review

ADD FOREIGN KEY (ReviewerID) REFERENCES Reviewer (ReviewerID);

ALTER TABLE Review

ADD FOREIGN KEY (Author) REFERENCES Author (EmailID);