Relational Schema:

Group Members:

Akhil Rana (A20483402)

Karan Verma (A20506421)

Anudeep Gadige (A20513979)

Auth (User\_ID, Password, Email)

Users (User\_ID, First\_Name, Last\_name, User\_Type, Librarian\_ID)

Documents (Doc\_ID, Doc\_Type, Aisle\_Num)

Transactional\_Details (TransactionID, User\_ID, Doc\_ID, Title, Transactions\_Type, Borrow\_Date, Return\_Date)

Journal\_Articles (Doc\_ID, Title, Journal\_Name, Issue\_Name, Copies\_Available)

Books (Doc\_ID, Title, ISBN, Publisher\_Name, Edition, Copies\_Available)

Magazines (Doc\_ID, Title, Editor, Contributor, Copies\_Available)

Technical\_Report (Doc\_ID, Title, Report\_Date)

Thesis (Doc\_ID, Thesis, Thesis\_Number, Issue\_Date)

Keywords (Doc\_ID, Keyword)

Authors (Doc\_ID, First\_Name, Last\_Name)

SQL Scripts:

CREATE TABLE Auth

(

User\_ID VARCHAR(20) NOT NULL,

Password VARCHAR(50) NOT NULL,

Email VARCHAR(50) NOT NULL,

PRIMARY KEY (User\_ID)

);

CREATE TABLE Users

(

User\_ID VARCHAR(20) NOT NULL,

First\_Name VARCHAR(50) NOT NULL,

Last\_Name VARCHAR(50) NOT NULL,

User\_Type VARCHAR(20) NOT NULL,

Librarian\_ID VARCHAR(50),

PRIMARY KEY (User\_ID),

FOREIGN KEY (User\_ID) REFERENCES Auth(User\_ID)

);

CREATE TABLE Documents

(

Doc\_ID SERIAL NOT NULL,

Doc\_Type VARCHAR(20) NOT NULL,

Aisle\_Num VARCHAR(20) NOT NULL,

PRIMARY KEY (Doc\_ID)

);

CREATE TABLE Transactional\_Details

(

`` SERIAL NOT NULL,

User\_ID VARCHAR(20) NOT NULL,

Doc\_ID INT NOT NULL,

Title VARCHAR(100) NOT NULL,

Transactions\_Type VARCHAR(20) NOT NULL,

Borrow\_Date DATE NOT NULL,

Return\_Date DATE,

PRIMARY KEY (TransactionID),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID),

FOREIGN KEY (User\_ID) REFERENCES USERS(User\_ID)

);

CREATE TABLE Journal\_Articles

(

Doc\_ID SERIAL NOT NULL,

Title VARCHAR(50) NOT NULL,

Journal\_Name VARCHAR(20) ,

Issue\_Date DATE ,

Copies\_Available INT ,

PRIMARY KEY (Doc\_ID),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID)

);

CREATE TABLE Books

(

Doc\_ID SERIAL NOT NULL,

Title VARCHAR(50) NOT NULL,

ISBN VARCHAR(50),

Publisher\_Name VARCHAR(100),

Edition VARCHAR(20),

Copies\_Available INT,

PRIMARY KEY (Doc\_ID),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID)

);

CREATE TABLE Magazines

(

Doc\_ID SERIAL NOT NULL,

Title VARCHAR(50) NOT NULL,

Editor VARCHAR(20),

Contributor VARCHAR(20),

Copies\_Available INT,

PRIMARY KEY (Doc\_ID),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID)

);

CREATE TABLE Technical\_Report

(

Doc\_ID SERIAL NOT NULL,

Title VARCHAR(50) NOT NULL,

Report\_Date DATE NOT NULL,

PRIMARY KEY (Doc\_ID),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID)

);

CREATE TABLE Thesis

(

Doc\_ID SERIAL NOT NULL,

Thesis\_Name VARCHAR(50),

Thesis\_Number VARCHAR(50),

Issue\_Date DATE NOT NULL,

PRIMARY KEY (Doc\_ID),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID)

);

CREATE TABLE Keywords

(

Doc\_ID INT NOT NULL,

Keyword VARCHAR(100) NOT NULL,

PRIMARY KEY (Doc\_ID),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID)

);

CREATE TABLE Authors

(

Doc\_ID INT NOT NULL,

First\_Name VARCHAR(100) NOT NULL,

Last\_Name VARCHAR(100) NOT NULL,

PRIMARY KEY (Doc\_ID,First\_Name,Last\_Name),

FOREIGN KEY (Doc\_ID) REFERENCES DOCUMENTS(Doc\_ID)

);

Insert into Auth values('Kv123', 'Kv@123','KaranVerma@gmail.com'),

('Ar123', 'Ak@123','AkhilRana@gmail.com'),

('At123', 'At@123','AryanThakran@gmail.com'),

('Ak123', 'Ak@123','AkshayKalucha@gmail.com'),

('Ag123', 'Ag@123','AyushGoel@gmail.com');

Insert into Users values('Ak123', 'Akshay', 'Kalucha','Member','Rosel2234'),

('Ar123', 'Akhil', 'Rana','Member' ,'Rosel2234'),('At123', 'Aryan', 'Rana','Member' ,'Rosel2234'),('Ag123', 'Ayush', 'Goel','Member', 'Rosel2234'),('Kv123', 'Karan', 'Verma','Member','Rosel2234');

Insert into Documents values (1234, ‘Book’, 'T5'), (6754, 'Jouranl\_Article', 'T7'), (1756, 'Journal\_Article', 'T7'), (9342, 'Magazine', 'T6'), (6689,'Thesis','T9'), (1521,'Book','T5');

Insert into Documents values (1321, ‘Book’, ‘T5’), (1890, ‘Magazine’, ‘T6’), (1540, ‘Journal\_Article’, ‘T7’), (1322, ‘Book’, ‘T5’), (9812, ‘Thesis’, ‘T9’);

Insert into Document values (1475, ‘Thesis’, ‘T9’), (6923, ‘Magazine’, ‘T6’), (4901, ‘Journal\_Article’, ‘T7’), (3999, ‘Thesis’, ‘T9’);

Insert into Documents values (1576, ‘Magazine’, ‘T6’), (5112, ‘Book’, ‘T5’), (7256, ‘Book’, ‘T5’), (4902, ‘Book’, ‘T5’);

Insert into Authors values (1234, 'John','Fever'),(6689, 'Karen','Hawkins'),(1521, 'David','Johnson');

Insert into Authors values (2378, ‘Timothy’,‘Glover’), (6893, ‘Eden’,‘Gibson’), (7634, ‘Kendra’,‘Rosario’);

Insert into Authors values (3812, ‘Tiana’,‘Richardson’), (3677, ‘Eleanor’,‘Dean’), (7632, ‘Luis’,‘Conner’);

Insert into books values (1521, 'Gasping for Breath', '978-3-16-148410-0', 'YWAM PUBLISHING', '1st Edition',5);

Insert into books values (7145, ‘Mystery of the Floridian Visitor’, ‘738-7-89-11450-8’, ‘Penguin House’, ‘3rd Edition’,7);

Insert into books values (3417, ‘The Horizon of Nine’, ‘'581-1-76-428459-3', ‘Hachette Book Group’, ‘4th Edition’,8);

Insert into Journal\_Articles values (1756,'Peer review: Risk and risk tolerance','IEEE','2020-09-22',5);

Insert into Journal\_Articles values (3216, ‘The Effects of Sleep Deprivation on Item and Associative Recognition Memory’, ‘IEEE’, ’2022-12-04’,2);

Insert into Journal\_Articles values (3410, ‘Journal Article Reporting Standards for Qualitative Research in Psychology’,’IEEE’,’2021-04-13’,6);

Insert into magazines values (9342,'AARP Bulletin','Frank Zindler', 'Madalyn Murray',7);

Insert into magazines values (8231,’The Atlantic’, ‘Hugh Davis’, ‘Jacqueline Rice’, 3);

Insert into magazines values (4912,’Medium’, ‘Alice Hines’, ‘Sadie Santiago’, 4);

Insert into thesis values (6689,'The Influence of COVID-19 on Cryptocurrency Price', 'T2005','2019-08-25');

Insert into thesis values (7201, ‘Non-cooperative games’,T2008, ‘2020-03-10’);

Insert into thesis values (2731, ‘The principle of Least Action in Quantum Mechanics’,T2011, ‘2019-11-08’);

Insert into transactional\_details values (1,'Kv123',1521,'Gasping for Breath','Borrow', '2022-09-12','2022-11-29');

Insert into keywords values (9342,'AARP Bulletin'),(1756,'Peer review: Risk and risk tolerance'),

(6689,'The Influence of COVID-19 on Cryptocurrency Price'),(1521,'Gasping for Breath');