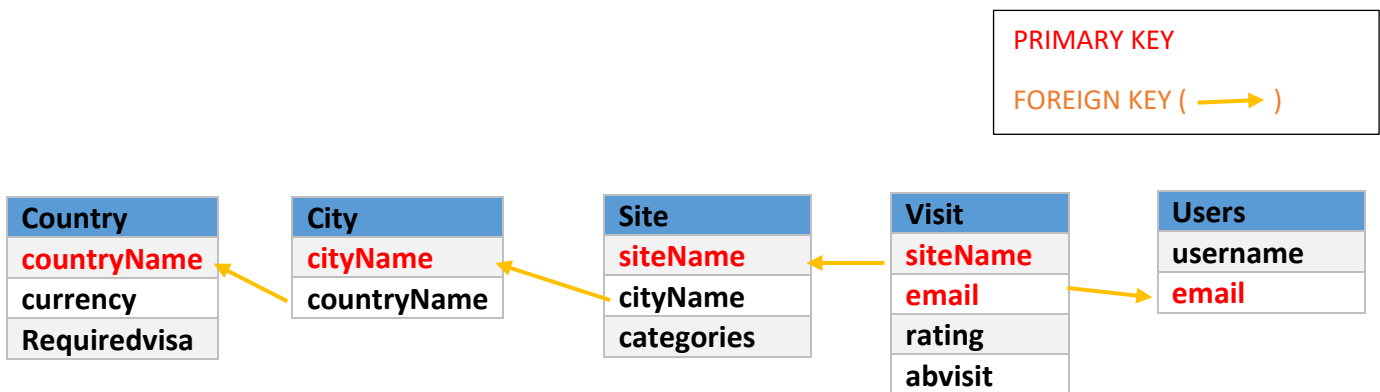# F27WD Web Design and Databases

Coursework 2 Assignment

Group 20: Krishna Mattapalli, Haydn McGrath, Henry McFarland, Belal khalid

Relational diagram for our database

Country
countryName
currency
Requiredvisa

City
cityName
countryName

Site
siteName
cityName
categories

Visit
siteName
email
rating
abvisit

Users
username
email

we designed a relational diagrams the tables are used to store this information, we include five tables: `Country, City, Site, User, Visit`.

For countries, we record information about the country name, what the currency is, and whether a citizen of the USA, needs a visa to visit or not.
PRIMARY KEY- countryName

For cities, we record information about the city name and the country it is in.
PRIMARY KEY- cityName
FOREIGN KEY- City.countryName references to Country.countryName

For Sites we record information about the sites and city they are in. Sites are classified according to categories - for example: museum, park, ride, architecture, food and drink.
PRIMARY KEY- siteName
FOREIGN KEY- Site.cityName references to City.cityName

For Visit, we record information of site name, email, rating and a constraint variable abvisit
PRIMARY KEY- siteName and email
FOREIGN KEY- Visit.siteName references to Site.siteName
FOREIGN KEY- Vist.email references to Uses.email

For users, we record their name and email address.
PRIMARY KEY- email

SQL used to implement the database

CREATE DATABASE group20db;

USE group20db;

CREATE TABLE Country(

      countryName VARCHAR(30) NOT NULL PRIMARY KEY,

      currency VARCHAR(30) NOT NULL,

      requiredvisa BOOLEAN

)ENGINE=INNODB;

CREATE TABLE City(

      cityName VARCHAR(30) NOT NULL PRIMARY KEY,

      countryName VARCHAR(30) NOT NULL,

      FOREIGN KEY(countryName) REFERENCES Country(countryName)

)ENGINE=INNODB;

CREATE TABLE Site(

      siteName VARCHAR(50) NOT NULL PRIMARY KEY,

      cityName VARCHAR(50) NOT NULL,

      categories VARCHAR(50) NOT NULL,

      FOREIGN KEY(cityName) REFERENCES City(cityName)

)ENGINE=INNODB;

CREATE TABLE Users(

      userName VARCHAR(80) NOT NULL,

      email VARCHAR(50) NOT NULL PRIMARY KEY

)ENGINE=INNODB;

```
CREATE TABLE Visit(

                siteName VARCHAR(50) NOT NULL,

                email VARCHAR(50) NOT NULL,

                rating INT,

                CONSTRAINT abVisit PRIMARY KEY (siteName, email),

                FOREIGN KEY(siteName) REFERENCES Site(siteName),

                FOREIGN KEY(email) REFERENCES Users(email)

            )ENGINE=INNODB;
```

SQL for data within the database

INSERT INTO Country VALUES ("INDIA", "INDIA RUPEE", TRUE);

INSERT INTO Country VALUES ("USA", "USD", FALSE);

INSERT INTO Country VALUES ("UK", "POUND", FALSE);

INSERT INTO Country VALUES ("CHINA", "RENMINBI", TRUE);

INSERT INTO Country VALUES ("FRANCE", "EURO", FALSE);

INSERT INTO City VALUES ("DELHI", "INDIA");

INSERT INTO City VALUES ("AGRA", "INDIA");

INSERT INTO City VALUES ("NEW YORK", "USA");

INSERT INTO City VALUES ("WASHINGTON", "USA");

INSERT INTO City VALUES ("LONDON", "UK");

INSERT INTO City VALUES ("EDINBURGH", "UK");

INSERT INTO City VALUES ("SHANGHAI", "CHINA");

INSERT INTO City VALUES ("BEIJING", "CHINA");

INSERT INTO City VALUES ("PARIS", "FRANCE");

INSERT INTO City VALUES ("NICE", "FRANCE");

```sql
INSERT INTO Site VALUES ("RED FORT", "DELHI", "CASTLE" );

INSERT INTO Site VALUES ("TAJ MAHAL", "AGRA", "ARCHITECTURE" );

INSERT INTO Site VALUES ("STATUE OF LIBERTY", "NEW YORK", "STATUE" );

INSERT INTO Site VALUES ("OLYMPIC NATIONAL PARK", "WASHINGTON", "PARK" );

INSERT INTO Site VALUES ("LONDON EYE", "LONDON", "RIDE" );

INSERT INTO Site VALUES ("EDINBURGH CASTLE", "EDINBURGH", "CASTLE" );

INSERT INTO Site VALUES ("YU GARDEN", "SHANGHAI", "PARK" );

INSERT INTO Site VALUES ("GREAT WALL OF CHINA", "BEIJING", "ARCHITECTURE" );

INSERT INTO Site VALUES ("EIFFEL TOWER", "PARIS", "ARCHITECTURE" );

INSERT INTO Site VALUES ("PROMENADE-DES ANGLAIS", "NICE", "BEACH" );


INSERT INTO Users VALUES ("jack", "jack122@gmail.com" );

INSERT INTO Users VALUES ("josh", "josh122@gmail.com" );

INSERT INTO Users VALUES ("MARK", "mark007@gmail.com" );

INSERT INTO Users VALUES ("EMILY", "emily098@gmail.com" );

INSERT INTO Users VALUES ("DANNY", "daredanny@gmail.com" );


INSERT INTO Visit VALUES ("RED FORT", "jack122@gmail.com", "4" );

INSERT INTO Visit VALUES ("TAJ MAHAL", "josh122@gmail.com", "5");

INSERT INTO Visit VALUES ("STATUE OF LIBERTY", "emily098@gmail.com", "3");

INSERT INTO Visit VALUES ("OLYMPIC NATIONAL PARK","daredanny@gmail.com", "5");

INSERT INTO Visit VALUES ("LONDON EYE", "josh122@gmail.com", "5");

INSERT INTO Visit VALUES ("EDINBURGH CASTLE", "daredanny@gmail.com", "4");

INSERT INTO Visit VALUES ("YU GARDEN", "emily098@gmail.com", "3");

INSERT INTO Visit VALUES ("GREAT WALL OF CHINA", "mark007@gmail.com", "2");

INSERT INTO Visit VALUES ("EIFFEL TOWER", "jack122@gmail.com" , "4");
```

```
INSERT INTO Visit VALUES ("PROMENADE-DES ANGLAIS", "josh122@gmail.com", "5");

INSERT INTO Visit VALUES ("RED FORT", "mark007@gmail.com", "4" );

INSERT INTO Visit VALUES ("TAJ MAHAL", "daredanny@gmail.com", "5");

INSERT INTO Visit VALUES ("STATUE OF LIBERTY", "mark007@gmail.com", "3");

INSERT INTO Visit VALUES ("OLYMPIC NATIONAL PARK","emily098@gmail.com", "5");

INSERT INTO Visit VALUES ("LONDON EYE", "mark007@gmail.com", "5");

INSERT INTO Visit VALUES ("EDINBURGH CASTLE", "jack122@gmail.com", "4");

INSERT INTO Visit VALUES ("YU GARDEN", "jack122@gmail.com", "3");

INSERT INTO Visit VALUES ("GREAT WALL OF CHINA", "emily098@gmail.com", "2");

INSERT INTO Visit VALUES ("EIFFEL TOWER", "josh122@gmail.com" , "4");

INSERT INTO Visit VALUES ("PROMENADE-DES ANGLAIS", "daredanny@gmail.com", "5");
```

SQL for queries within the database

You have to use this to enter into DATABASE
(USE group20db;)

Query 1: <u>Returns a list of all the cities that contain an ARCHITECTURE</u>.

SELECT

   *

FROM

   group20db.Site

WHERE

   categories = 'ARCHITECTURE'

LIMIT 20;

Query 2: <u>Returns a list of all the cities, where USA citizens can visit without a visa and Used a JOIN to connect the tables</u>.

SELECT

   City.*, IF(requiredvisa = 1, 'True', 'False') requiredvisa

FROM

   group20db.Country

      INNER JOIN

   group20db.City ON City.countryName = Country.countryName

WHERE

   requiredvisa IS NOT TRUE;

Query 3: <u>Returns a list of all the cities, where USA citizens can visit without a visa and didn't Used JOIN to connect the tables.</u>

SELECT

   b.*, IF(requiredvisa = 1, 'True', 'False') requiredvisa

FROM

   group20db.Country a,

   group20db.City b

WHERE

   a.countryName = b.countryName

     AND a.requiredvisa IS NOT TRUE;

Query 4: <u>Returns a list of all the users who have visited EIFFEL TOWER.</u>

SELECT

   a.siteName, b.*, a.rating

FROM

   group20db.Visit a,

   group20db.Users b

WHERE

   a.email = b.email

     AND siteName = 'EIFFEL TOWER';

Query 5: <u>Returns a list of users and there ratings, who visited TAJ MAHAL.</u>

SELECT

   userName AS NAMES, rating AS RATING

FROM

   Visit,

   Users

WHERE

   Visit.email = Users.email

     AND Visit.siteName = 'TAJ MAHAL';

Query 6: <u>Returs site Names and there ratings, where rating are between 3 and 5.</u>

SELECT

   rating AS RATING, siteName AS SITE

FROM

   Visit

WHERE

   rating BETWEEN 3 AND 5

ORDER BY rating DESC;

PHP used for the database

Effort points for group members:

Name of group Member:	Effort points given out of 40
Krishna Mattapalli	16
Haydn McGrath	14
Henry McFarland	10
Belal Khalid	0 (dropped out)