Sabancı University

CS 306 Spring Term Project

Project Phase 1 Documentation

---

1. Project Title

"BOOK & TRIP"

2. Team Members

Berke Ayyıldızlı – 31018

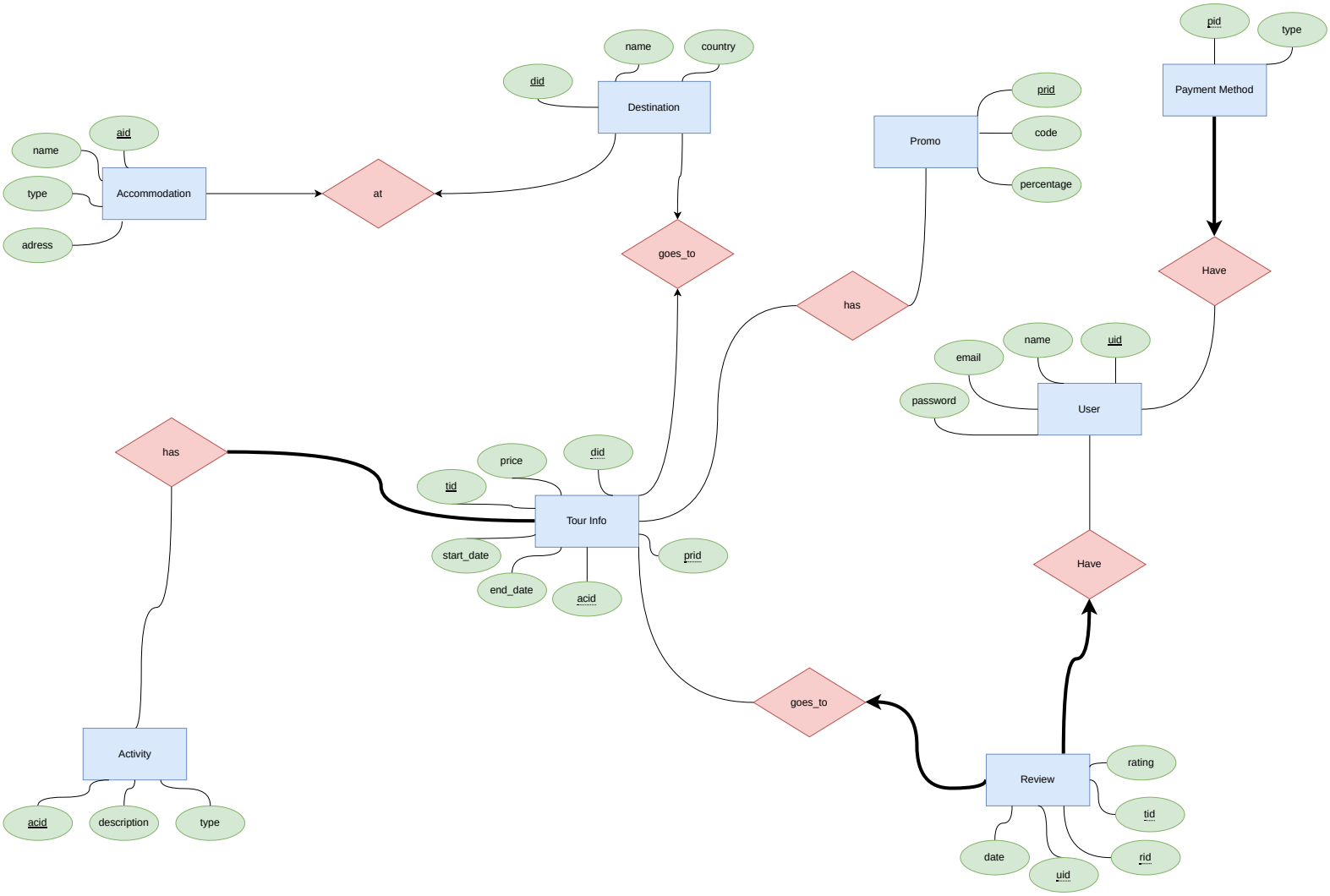
Beyza Balota – 31232

Kerem Tatari – 29208

3. Project Description

Book & Trip is a booking system that is designed to simplify the user's experience while planning their vacation. It provides a variety of tours with different destinations, suggested activities, and detailed accommodation choices. Users can see the reviews of the tours, choose their payment method, and apply for promotions while paying. Book & Trip's main aim is to help customers select the most suitable tour while offering practical use and being transparent to their users.

4. ER Model



5. Relational Model

1. User

Users are the people who will log in. User information requires an ID, name, email, and password to provide a personalised and secure user experience.

2. Destination

Destination stands for the country that is planning to be visited. It contains an ID, city name and country. Users can explore various locations and get detailed information.

3. Accommodation

Accommodations are the places that the users will stay while on the tour. It contains an ID, destination ID, name of the place, type of the place (hotel, hostel, apartment, etc.) and the address of the place. Users can explore a wide range of accommodations linked to specific destinations. They can see the address and book the best stays that fit their preferences.

4. Review

Reviews are the user's ratings that are left after their tour experience. It stores a partial key ID, the user’s ID, the tour ID, the rating, and the rating date. Users can only rate the tours that they have attended. Rating score and date will also be visible to the other users.

5. Payment Method

Payment method is the way that the users will pay for their charged price. It contains a partial key ID, and the payment method (credit card, PayPal, etc.). Users are free to choose their preferred payment method, ensuring flexibility and security in transactions.

6. Tour info

Tour info is the information on the planned tours. It contains an ID, price, start and end date, activity ID, promotion ID, and destination ID. Each tour includes detailed information on schedules, pricing, included activities and promotional discounts. Users can look into various activities of the destination from the tour they selected (sightseeing, skiing, hiking, swimming, camping, culinary experience, historical exploration, etc.).

7. Promo

Promo offers different promotional discounts for the fees. It includes an ID, a promotion code, and a discount percentage.

8. Activity

Activity is the activity type that users can experience while on tour. It contains an ID, the type of the activity (sightseeing, skiing, hiking, swimming, camping, culinary experience, historical exploration, etc.) and the activity description.

6. Code Part

```
CREATE DATABASE IF NOT EXISTS CS306Project;
USE CS306Project;

DROP TABLE IF EXISTS Review, PaymentMethod, TourInfo, Activity, Accommodation, Promo, Destination, User;

CREATE TABLE User (
   uid INT AUTO_INCREMENT,
   name VARCHAR(50) NOT NULL,
   email VARCHAR(50) NOT NULL UNIQUE,
   password VARCHAR(50) NOT NULL,
   primary key (uid)
);

-- Destination Table
CREATE TABLE Destination (
   did INT AUTO_INCREMENT,
   name VARCHAR(50) NOT NULL,
   country VARCHAR(50) NOT NULL,
   primary key (did)
);

-- Accommodation Table
CREATE TABLE Accommodation (
   aid INT AUTO_INCREMENT,
   name VARCHAR(50) NOT NULL,
   type VARCHAR(50) NOT NULL,
   address VARCHAR(50) NOT NULL,
   primary key(aid)
);

-- Activity Table
CREATE TABLE Activity (
     acid INT AUTO_INCREMENT,
     type VARCHAR(50) NOT NULL,
     description TEXT NOT NULL,
     primary key(acid)
);

-- Promo Table
CREATE TABLE Promo (
     prid INT AUTO_INCREMENT,
     code VARCHAR(50) NOT NULL UNIQUE,
     percentage INT NOT NULL,
     primary key(prid)
);
-- TourInfo Table
CREATE TABLE TourInfo (
  tid INT AUTO_INCREMENT,
  price DECIMAL(10, 2) NOT NULL,
  start_date DATE NOT NULL,
  end_date DATE NOT NULL,
  acid INT,
  prid INT,
  did INT,
  primary key (tid),
  FOREIGN KEY (acid) REFERENCES Activity(acid),
```

```
  FOREIGN KEY (prid) REFERENCES Promo(Prid),
  FOREIGN KEY (did) REFERENCES Destination(did)
);

CREATE TABLE PaymentMethod (
  pid INT AUTO_INCREMENT,
  type VARCHAR(50) NOT NULL,
  uid INT NOT NULL,
  primary key (pid),
  FOREIGN KEY (uid) REFERENCES User(uid)
);

-- Review Table
CREATE TABLE Review (
  rid INT AUTO_INCREMENT,
  rating INT NOT NULL,
  date DATE NOT NULL,
  uid INT NOT NULL,
  tid INT NOT NULL,
  primary key(rid),
  FOREIGN KEY (uid) REFERENCES User(uid),
  FOREIGN KEY (tid) REFERENCES TourInfo(tid)
);
```

7. Insertion Part

```
INSERT INTO User (name, email, password) VALUES
('John Doe', 'johndoe@example.com', 'password123'),
('Jane Smith', 'janesmith@example.com', 'password456'),
('Alice Johnson', 'alicejohnson@example.com', 'password789'),
('Bob Brown', 'bobbrown@example.com', 'password101'),
('Charlie Davis', 'charliedavis@example.com', 'password202'),
('Diana Evans', 'dianaevans@example.com', 'password303'),
('Frank Green', 'frankgreen@example.com', 'password404'),
('Gina Harris', 'ginaharris@example.com', 'password505'),
('Henry Wilson', 'henrywilson@example.com', 'password606'),
('Ivy Young', 'ivyyoung@example.com', 'password707');
```

```
SELECT * FROM CS306Project.User;
```

100% 1:1

Result Grid | Filter Rows: Search | Edit:

uid	name	email	password
1	John Doe	johndoe@example.com	password123
2	Jane Smith	janesmith@example.com	password456
3	Alice Johnson	alicejohnson@example.com	password789
4	Bob Brown	bobbrown@example.com	password101
5	Charlie Davis	charliedavis@example.com	password202
6	Diana Evans	dianaevans@example.com	password303
7	Frank Green	frankgreen@example.com	password404
8	Gina Harris	ginaharris@example.com	password505
9	Henry Wilson	henrywilson@example.com	password606
10	Ivy Young	ivyyoung@example.com	password707
NULL	NULL	NULL	NULL

```
-- Insert Destination

INSERT INTO Destination (name, country) VALUES
('Paris', 'France'),
('Tokyo', 'Japan'),
('New York', 'USA'),
('London', 'UK'),
('Bangkok', 'Thailand'),
('Dubai', 'UAE'),
('Rome', 'Italy'),
('Sydney', 'Australia'),
('Cairo', 'Egypt'),
('Cape Town', 'South Africa');
```

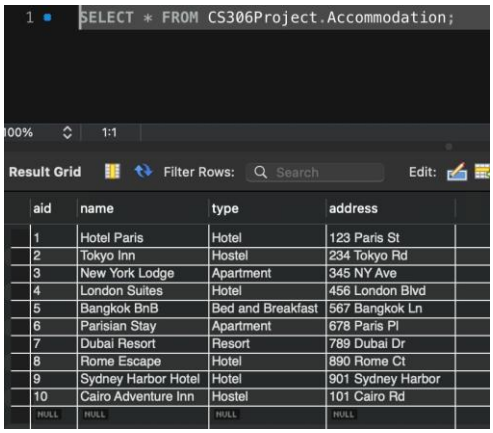
```
SELECT * FROM CS306Project.Destination;
```

00% 40:1

Result Grid | Filter Rows: Search | Edit:

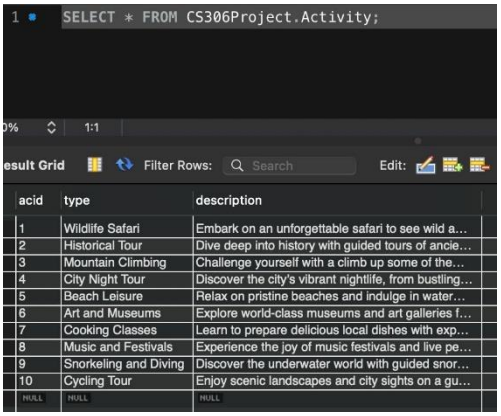
did	name	country
1	Paris	France
2	Tokyo	Japan
3	New York	USA
4	London	UK
5	Bangkok	Thailand
6	Dubai	UAE
7	Rome	Italy
8	Sydney	Australia
9	Cairo	Egypt
10	Cape Town	South Africa
NULL	NULL	NULL

-- Insert Accommodation
INSERT INTO Accommodation (name, type, address) VALUES
('Hotel Paris', 'Hotel', '123 Paris St'),
('Tokyo Inn', 'Hostel', '234 Tokyo Rd'),
('New York Lodge', 'Apartment', '345 NY Ave'),
('London Suites', 'Hotel', '456 London Blvd'),
('Bangkok BnB', 'Bed and Breakfast', '567 Bangkok Ln'),
('Parisian Stay', 'Apartment', '678 Paris Pl'),
('Dubai Resort', 'Resort', '789 Dubai Dr'),
('Rome Escape', 'Hotel', '890 Rome Ct'),
('Sydney Harbor Hotel', 'Hotel', '901 Sydney Harbor'),
('Cairo Adventure Inn', 'Hostel', '101 Cairo Rd');



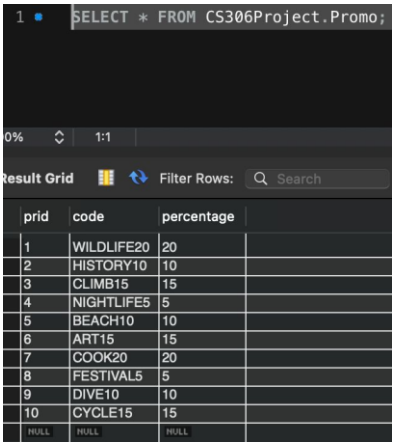
aid	name	type	address
1	Hotel Paris	Hotel	123 Paris St
2	Tokyo Inn	Hostel	234 Tokyo Rd
3	New York Lodge	Apartment	345 NY Ave
4	London Suites	Hotel	456 London Blvd
5	Bangkok BnB	Bed and Breakfast	567 Bangkok Ln
6	Parisian Stay	Apartment	678 Paris Pl
7	Dubai Resort	Resort	789 Dubai Dr
8	Rome Escape	Hotel	890 Rome Ct
9	Sydney Harbor Hotel	Hotel	901 Sydney Harbor
10	Cairo Adventure Inn	Hostel	101 Cairo Rd

-- Insert Activity
INSERT INTO Activity (type, description) VALUES
('Wildlife Safari', 'Embark on an unforgettable safari to see wild animals in their natural habitat.'),
('Historical Tour', 'Dive deep into history with guided tours of ancient ruins and historical landmarks.'),
('Mountain Climbing', 'Challenge yourself with a climb up some of the world's most famous mountains.'),
('City Night Tour', 'Discover the city's vibrant nightlife, from bustling markets to dazzling light shows.'),
('Beach Leisure', 'Relax on pristine beaches and indulge in water sports and sunbathing.'),
('Art and Museums', 'Explore world-class museums and art galleries featuring historic and contemporary works.'),
('Cooking Classes', 'Learn to prepare delicious local dishes with expert chefs in hands-on cooking classes.'),
('Music and Festivals', 'Experience the joy of music festivals and live performances showcasing local and international artists.'),
('Snorkeling and Diving', 'Discover the underwater world with guided snorkeling and diving adventures.'),
('Cycling Tour', 'Enjoy scenic landscapes and city sights on a guided cycling tour.');



acid	type	description
1	Wildlife Safari	Embark on an unforgettable safari to see wild a…
2	Historical Tour	Dive deep into history with guided tours of ancie…
3	Mountain Climbing	Challenge yourself with a climb up some of the…
4	City Night Tour	Discover the city's vibrant nightlife, from bustling…
5	Beach Leisure	Relax on pristine beaches and indulge in water…
6	Art and Museums	Explore world-class museums and art galleries f…
7	Cooking Classes	Learn to prepare delicious local dishes with exp…
8	Music and Festivals	Experience the joy of music festivals and live pe…
9	Snorkeling and Diving	Discover the underwater world with guided snor…
10	Cycling Tour	Enjoy scenic landscapes and city sights on a gu…

-- Insert Promo
INSERT INTO Promo (code, percentage) VALUES
('WILDLIFE20', 20),
('HISTORY10', 10),
('CLIMB15', 15),
('NIGHTLIFE5', 5),
('BEACH10', 10),
('ART15', 15),
('COOK20', 20),
('FESTIVAL5', 5),
('DIVE10', 10),



prid	code	percentage
1	WILDLIFE20	20
2	HISTORY10	10
3	CLIMB15	15
4	NIGHTLIFE5	5
5	BEACH10	10
6	ART15	15
7	COOK20	20
8	FESTIVAL5	5
9	DIVE10	10
10	CYCLE15	15

('CYCLE15', 15);

```
SELECT * FROM CS306Project.TourInfo;
```

tid	price	start_date	end_date	acid	prid	did
1	500.00	2024-03-10	2024-03-17	1	1	1
2	750.00	2024-04-15	2024-04-22	2	2	2
3	1200.00	2024-05-20	2024-05-27	3	3	3
4	300.00	2024-06-10	2024-06-15	4	4	4
5	800.00	2024-07-01	2024-07-08	5	5	5
6	600.00	2024-08-15	2024-08-22	1	1	6
7	950.00	2024-09-05	2024-09-12	2	2	7
8	1100.00	2024-10-10	2024-10-17	3	3	8
9	450.00	2024-11-15	2024-11-22	4	4	9
10	700.00	2024-12-20	2024-12-27	5	5	10

-- Insert TourInfo (Tour details based on previously inserted data)
INSERT INTO TourInfo (price, start_date, end_date, acid, prid, did) VALUES
(500.00, '2024-03-10', '2024-03-17', 1, 1, 1),
(750.00, '2024-04-15', '2024-04-22', 2, 2, 2),
(1200.00, '2024-05-20', '2024-05-27', 3, 3, 3),
(300.00, '2024-06-10', '2024-06-15', 4, 4, 4),
(800.00, '2024-07-01', '2024-07-08', 5, 5, 5),
(600.00, '2024-08-15', '2024-08-22', 1, 1, 6),
(950.00, '2024-09-05', '2024-09-12', 2, 2, 7),
(1100.00, '2024-10-10', '2024-10-17', 3, 3, 8),
(450.00, '2024-11-15', '2024-11-22', 4, 4, 9),
(700.00, '2024-12-20', '2024-12-27', 5, 5, 10);

```
SELECT * FROM CS306Project.PaymentMethod;
```

pid	type	uid
1	Credit Card	1
2	PayPal	2
3	Debit Card	3
4	Credit Card	4
5	PayPal	5
6	Debit Card	6
7	Credit Card	7
8	PayPal	8
9	Debit Card	9
10	Credit Card	10

-- Insert PaymentMethod
INSERT INTO PaymentMethod (uid, type) VALUES
(1, 'Credit Card'),
(2, 'PayPal'),
(3, 'Debit Card'),
(4, 'Credit Card'),
(5, 'PayPal'),
(6, 'Debit Card'),
(7, 'Credit Card'),
(8, 'PayPal'),
(9, 'Debit Card'),
(10, 'Credit Card');

```
SELECT * FROM CS306Project.Review;
```

rid	rating	date	uid	tid
1	5	2024-03-18	1	1
2	4	2024-04-23	2	2
3	5	2024-05-28	3	3
4	3	2024-06-16	4	4
5	4	2024-07-09	5	5
6	5	2024-08-23	6	6
7	4	2024-09-13	7	7
8	3	2024-10-18	8	8
9	5	2024-11-23	9	9
10	4	2024-12-28	10	10

-- Insert Reviews
INSERT INTO Review (uid, tid, rating, date) VALUES
(1, 1, 5, '2024-03-18'),
(2, 2, 4, '2024-04-23'),
(3, 3, 5, '2024-05-28'),
(4, 4, 3, '2024-06-16'),
(5, 5, 4, '2024-07-09'),
(6, 6, 5, '2024-08-23'),
(7, 7, 4, '2024-09-13'),
(8, 8, 3, '2024-10-18'),
(9, 9, 5, '2024-11-23'),
(10, 10, 4, '2024-12-28');