



University of Asia Pacific

Department of Computer Science & Engineering

Course Title: Database Systems Lab

Course Code: CSE 212

Project:

Tourism & Travels

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Tourism & Travels

It is a digital platform offering centralized information on different destinations, accommodations, attractions and routes within certain packages. It enables efficient trip planning, online bookings, and user reviews, enhancing the travel experience for tourists while supporting businesses with valuable insights and marketing opportunities.

Entity Set	Relational Set
<ul style="list-style-type: none">• Attraction• Hotel• Transportation• Package• Review• User	<ul style="list-style-type: none">• Booking• Package_hotel_service• Package_transportation• User_hotel

Attraction Entity Attributes:

- attraction_ID
- attraction_name
- attraction_description
- ticket_price
- category (e.g., Historical, Natural, Entertainment)
- package_name (FK)
- package_type (FK)

Hotels Entity Attributes:

- hotel_ID
- hotel_name
- hotel_address
- hotel_description
- hotel_contact

Transportation Entity Attributes:

- Transportation_ID
- Departure Location
- Arrival Location
- transportation_Type
- transportation_class
- fare
- route

Package Entity Attributes:

- package_name
- package_type
- description
- package_price
- Number of Travelers

Review Entity Attributes:

- Review_ID
- comments
- User_ID (FK)
- package_name(FK)
- package_type(FK)

Users Entity Attributes:

- User_ID
- user_name
- user_email
- user_nid
- user_contact

Bookings Entity Attributes:

- User_ID (FK)
- Package_name (FK)
- Package_type (FK)
- payment

Packages_Hotel_Service Entity Attributes:

- package_name (FK)
- package_type (FK)
- hotel_ID (FK)

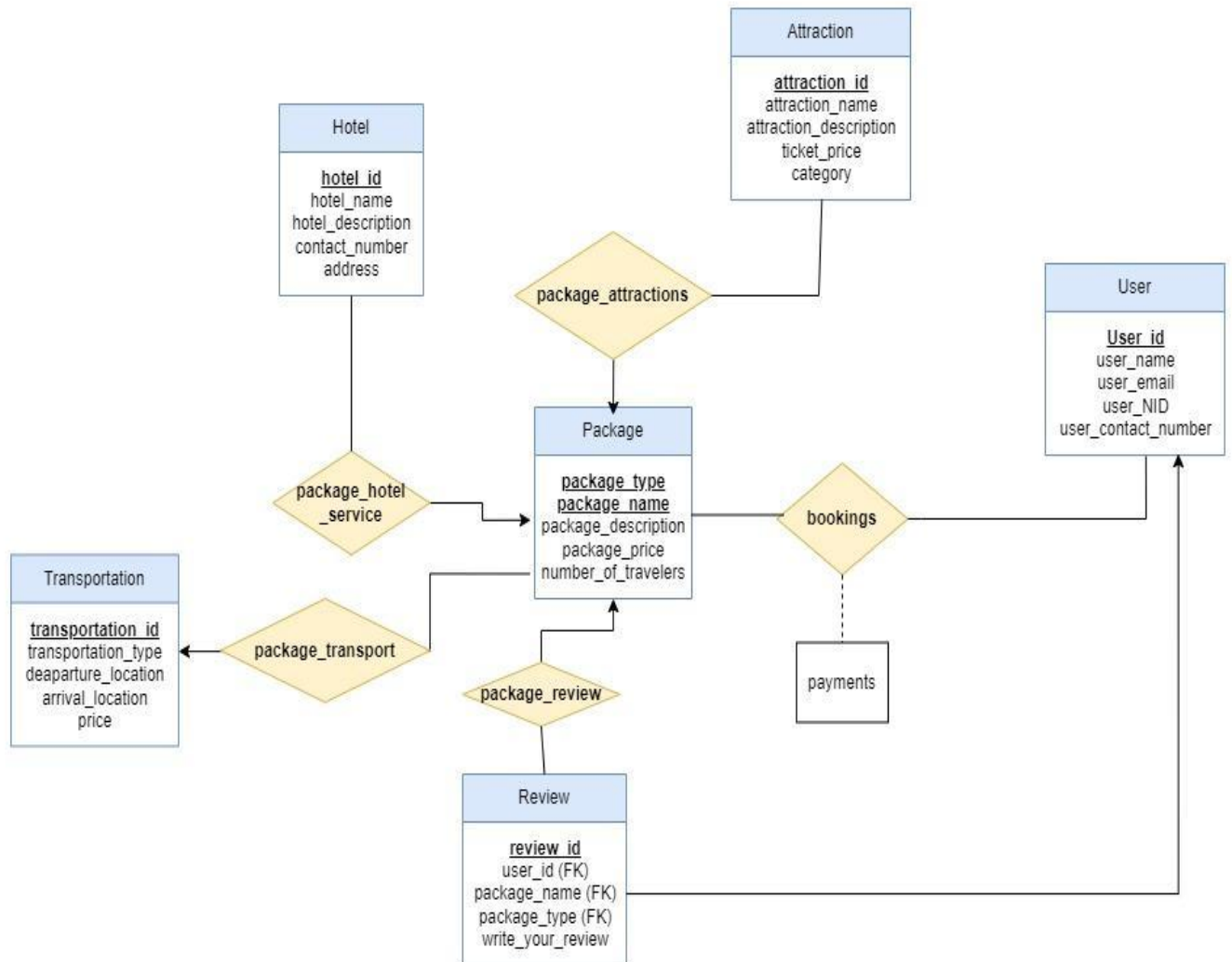
Package_transportation Entity Attributes:

- transportation_id (FK)
- Package_name (FK)
- Package_type (FK)

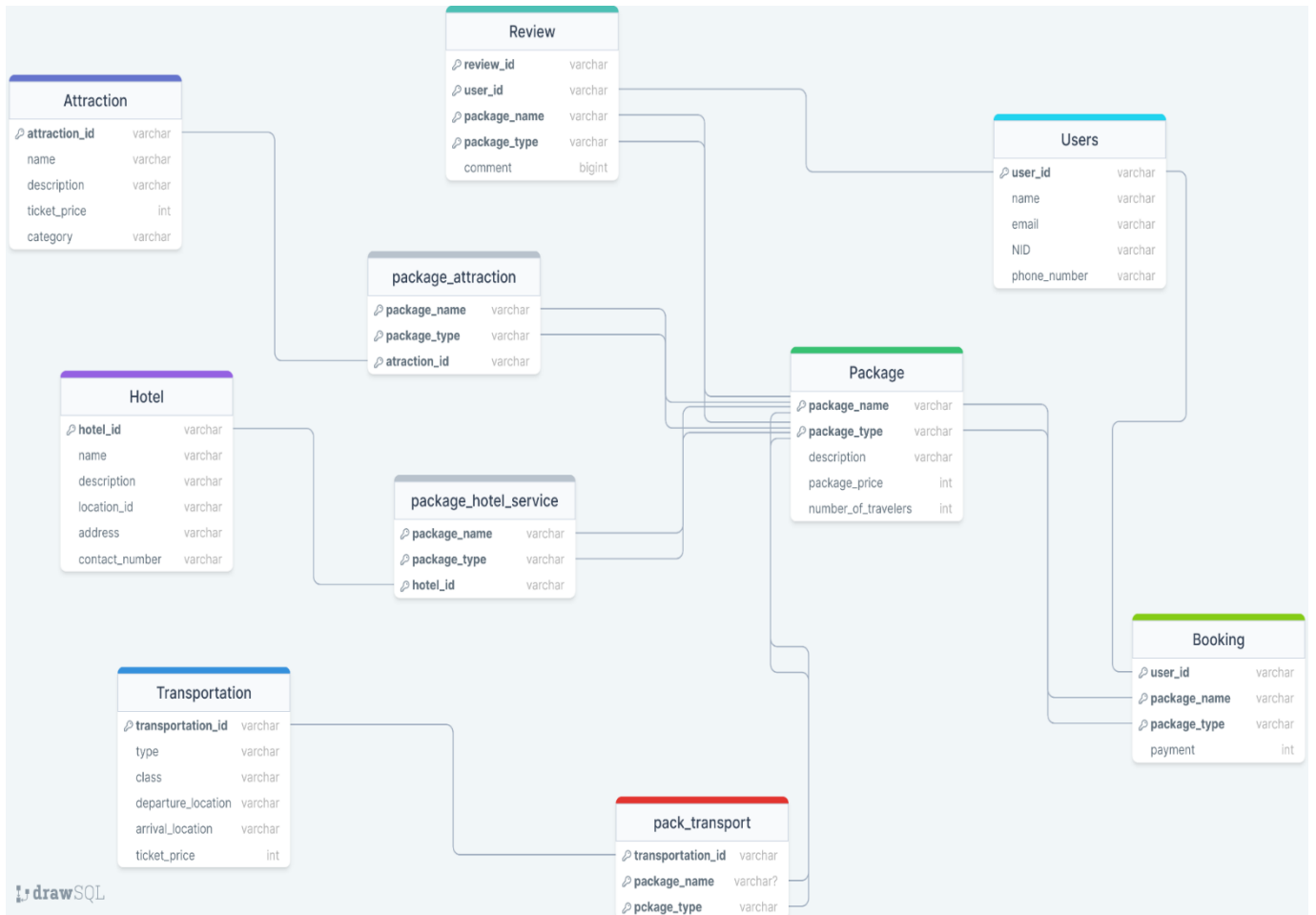
User_hotel Attributes:

- user_ID (FK)
- hotel_ID (FK)

ER Diagram:



Schema Diagram:



Inserted Data in Each Table

Package

package_name	package_type	description	package_price	numberoftravellers
Adventure in Sundarbans	Couple	Wildlife expedition for couples. Explore the mangr...	120000	2
Adventure in Sundarbans	Family	Family adventure in the wild. Nature walks, bird w...	180000	4
Adventure in Sundarbans	Single	Thrilling solo adventure. Jungle safaris, wildlife...	70000	1
Cox's Bazar Retreat	Couple	Romantic beach getaway. Beachside dinners, water a...	125000	2
Cox's Bazar Retreat	Single	Beach escape to Cox's Bazar. Sunbathing, water spo...	70000	1
Hill Station Retreat: Bandarban	Couple	Romantic hillside escape. Waterfalls, indigenous v...	110000	2
Hill Station Retreat: Bandarban	Family	Family getaway in the mountains. Adventure activit...	160000	4
Hill Station Retreat: Bandarban	Single	Solo retreat in the hills. Hiking trails, tribal c...	65000	1
Kuakata Exploration	Couple	Couples retreat to Kuakata. Sunset boat trips, bea...	95000	2
Kuakata Exploration	Single	Kuakata beach adventure for solo travelers. Sunset...	55000	1
Sajek Valley Expedition	Family	Family adventure to Sajek Valley. Tribal culture, ...	160000	4
Sajek Valley Expedition	Single	Solo journey to Sajek Valley. Hiking, camping, and...	75000	1
Sylhet Tour	Couple	Romantic getaway for couples. Private tours, cozy ...	80000	2
Sylhet Tour	Family	Fun-filled family adventure. Activities for all ag...	120000	4
Sylhet Tour	Single	Explore the beauty of Sylhet alone. Guided tours, ...	50000	1

User

user_id	user_name	user_email	user_nid	user_contact
2000	Md. Rahman	rahman@example.com	123456789012	01712345678
2001	Fatima Akter	fatima@example.com	234567890123	01987654321
2002	Sadia Ahmed	sadia@example.com	345678901234	01876543210
2003	Aminul Islam	aminul@example.com	456789012345	01654321098
2004	Nadia Khan	nadia@example.com	567890123456	01543210987
2005	Kamal Hossain	kamal@example.com	678901234567	01432109876
2006	Mehnaz Begum	mehnaz@example.com	789012345678	01321098765
2007	Farid Ahmed	farid@example.com	890123456789	01210987654
2008	Nusrat Jahan	nusrat@example.com	901234567890	01109876543
2009	Abdul Khaleq	khaleq@example.com	012345678901	01098765432
2010	Sara Rahman	sara@example.com	123456789013	01712345679
2011	Ahmed Khan	ahmed@example.com	234567890124	01987654322
2012	Nadia Islam	nadia@example.com	345678901235	01876543211
2013	Farhan Ahmed	farhan@example.com	456789012346	01654321099
2014	Amina Khan	amina@example.com	567890123457	01543210988

Attraction

attraction_id	attraction_name	attraction_description	ticket_price	category	package_name	package_type
1	Sylhet Tea Gardens	Explore lush green tea gardens in Sylhet. Guided t...	1500	Nature	Sylhet Tour	Single
2	Sundarbans Wildlife Safari	Exciting wildlife safari in the Sundarbans mangrov...	2500	Adventure	Adventure in Sundarbans	Single
3	Bandarban Waterfalls	Visit scenic waterfalls in Bandarban. Trekking and...	1800	Nature	Hill Station Retreat: Bandarban	Single
4	Cox's Bazar Beach	Enjoy the world's longest natural sea beach. Sunba...	1000	Beach	Cox's Bazar Retreat	Single
5	Kuakata Sunset Point	Witness stunning sunsets at Kuakata beach. Boat tr...	1200	Beach	Cox's Bazar Retreat	Single
6	Sajek Valley	Discover the beauty of Sajek Valley. Hilltop views...	2000	Nature	Sajek Valley Expedition	Single
7	Ratnodweep Island	Explore Ratnodweep Island. Crystal clear waters, w...	1800	Adventure	Adventure in Sundarbans	Couple
8	Madhabkunda Waterfall	Visit the Madhabkunda Waterfall. Hiking, bird watc...	1500	Nature	Hill Station Retreat: Bandarban	Family
9	Jaflong Tea Gardens	Experience tea gardens in Jaflong. Scenic beauty, ...	1600	Nature	Cox's Bazar Retreat	Couple
10	Lawachara National Park	Explore Lawachara National Park. Wildlife, trekkin...	900	Nature	Cox's Bazar Retreat	Single

Hotel

hotel_id	hotel_name	hotel_description	hotel_address	hotel_contact
1	Luxury Resort & Spa	A luxurious resort overlooking the beach. Spa, poo...	123 Beach Road, Cox's Bazar	01712345678
2	Sundarbans Eco Lodge	Eco-friendly lodge in the heart of Sundarbans. Nat...	456 Mangrove Lane, Sundarbans	01823456789
3	Panorama Hill Resort	Scenic resort nestled in the hills of Bandarban. H...	789 Hillside Drive, Bandarban	01934567890
4	Riverfront Retreat	Riverside retreat with private cottages. Fishing, ...	101 Riverbank Avenue, Sylhet	01645678901
5	Historical Heritage Inn	Charming heritage inn near Mohasthangarh. Historic...	202 Archaeology Street, Bogura	01556789012
6	Tranquil Beach Resort	Serene resort steps away from the beach. Beachfron...	303 Sandy Beach Road, Cox's Bazar	01467890123
7	Mangrove Lodge	Comfortable lodge in the heart of Sundarbans. Bird...	404 Mangrove Lane, Sundarbans	01378901234
8	Mountain View Retreat	Mountain resort with panoramic views. Hiking trail...	505 Mountain Drive, Bandarban	01289012345
9	Riverfront Bliss	Riverside hotel with spacious rooms. Riverside din...	606 Riverbank Avenue, Sylhet	01190123456
10	Bogura Heritage Inn	Historic inn in the heart of Bogura. Cultural expe...	707 History Lane, Bogura	01012345678

Package-Hotel

package_name	package_type	hotel_id
Adventure in Sundarbans	Single	2
Adventure in Sundarbans	Single	7
Cox's Bazar Retreat	Couple	1
Cox's Bazar Retreat	Single	1
Hill Station Retreat: Bandarban	Couple	3
Hill Station Retreat: Bandarban	Family	8
Kuakata Exploration	Single	10
Sajek Valley Expedition	Family	3
Sylhet Tour	Single	4
Sylhet Tour	Single	9

Transportation

transportation_id	departure_location	arrival_location	transportation_type	transportation_class	fare	route
1	Dhaka	Sylhet	Life by Air	Economy	4500	Direct Flight
2	Dhaka	Sylhet	Life by Air	Business	9000	Direct Flight with Business Class Amenities
3	Dhaka	Sundarbans	Life by Water	Economy	2000	Launch Journey
4	Dhaka	Sundarbans	Life by Water	Business	4000	Luxury Cruise
5	Dhaka	Sylhet	Life by Train	Economy	490	Direct train
6	Dhaka	Sylhet	Life by Train	Business	9000	Direct Flight with Business Class Amenities
7	Dhaka	Cox's Bazar	Life by Air	Economy	4500	Direct Flight
8	Dhaka	Cox's Bazar	Life by Air	Business	9000	Direct Flight with Business Class Amenities
9	Dhaka	Kuakata	Life by Air	Economy	3500	Direct Flight
10	Dhaka	Sajek Valley	Life by Air	Economy	4000	Direct Flight

Package-Transportation

transportation_id	package_name	package_type
1	Sylhet Tour	Single
2	Sylhet Tour	Single
3	Adventure in Sundarbans	Single
4	Adventure in Sundarbans	Single
6	Hill Station Retreat: Bandarban	Couple
6	Hill Station Retreat: Bandarban	Family
7	Cox's Bazar Retreat	Single
8	Cox's Bazar Retreat	Couple
9	Kuakata Exploration	Single
10	Sajek Valley Expedition	Family

User-Hotel

user_id	hotel_id
2001	9
2002	9
2003	2
2004	7
2010	1
2011	1
2012	10
2013	3

Booking

user_id	package_name	package_type	payment
2001	Sylhet Tour	Single	4500
2002	Sylhet Tour	Single	9000
2003	Adventure in Sundarbans	Single	2500
2004	Adventure in Sundarbans	Single	4000
2005	Cox's Bazar Retreat	Single	5500
2010	Cox's Bazar Retreat	Single	5000
2011	Hill Station Retreat: Bandarban	Single	7000
2012	Adventure in Sundarbans	Family	2800
2013	Hill Station Retreat: Bandarban	Family	6800
2014	Cox's Bazar Retreat	Couple	9000

Review

review_id	comments	user_id	package_name	package_type
1	Adventure Expeditions delivered a fantastic tour p...	2001	Sylhet Tour	Single
2	Tranquil Tours offered a delightful escape with a ...	2002	Sylhet Tour	Single
3	Heritage Journeys provided an enlightening cultura...	2003	Adventure in Sundarbans	Single
4	Nature's Edge Tours offers an exciting journey thr...	2004	Adventure in Sundarbans	Single
5	Cox's Bazar Retreat exceeded my expectations! The ...	2010	Cox's Bazar Retreat	Single
6	Kuakata Exploration provided me with a peaceful es...	2011	Kuakata Exploration	Single
7	Sajek Valley Expedition was a fantastic family adv...	2012	Sajek Valley Expedition	Family
8	Sajek Valley Expedition was breathtaking. The scen...	2013	Sajek Valley Expedition	Single
9	Cox's Bazar Retreat was a romantic getaway. We enj...	2014	Cox's Bazar Retreat	Couple
10	Cox's Bazar Retreat provided a perfect solo escape...	2005	Cox's Bazar Retreat	Single
11	Adventure in Sundarbans was a thrilling experience...	2003	Adventure in Sundarbans	Single
12	Hill Station Retreat: Bandarban was a romantic hil...	2004	Hill Station Retreat: Bandarban	Couple
13	Adventure in Sundarbans was a fantastic family adv...	2012	Adventure in Sundarbans	Family
14	Hill Station Retreat: Bandarban provided a perfect...	2013	Hill Station Retreat: Bandarban	Family
15	Cox's Bazar Retreat was a romantic escape. The bea...	2014	Cox's Bazar Retreat	Couple

SQL Queries:

1. How many number of travelers can avail one package of “Adventure in Sundarbans” - Family Package?

✓ Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)

```
SELECT package_name, numberoftravellers FROM package WHERE package_name = 'Adventure in Sundarbans' AND package_type = 'Family';
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 ▼

Extra options

	package_name	numberoftravellers
<input type="checkbox"/> Edit Copy Delete	Adventure in Sundarbans	4

2. What are the prices of all the packages for “Cox’s Bazar Retreat”?

✓ Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

```
SELECT package_name, package_type, package_price FROM package WHERE package_name = "Cox's Bazar Retreat";
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 ▼

Extra options

	package_name	package_type	package_price
<input type="checkbox"/> Edit Copy Delete	Cox's Bazar Retreat	Couple	125000
<input type="checkbox"/> Edit Copy Delete	Cox's Bazar Retreat	Single	70000

3. Which hotels are connected to the most expensive and the cheapest packages?

Showing rows 0 - 0 (1 total, Query took 0.0011 seconds.)

```
SELECT p.package_name AS most_expensive_package, p.package_price AS max_package_price, h.hotel_name AS hotel_for_most_expensive FROM package AS p JOIN package_hotel_service AS ph ON p.package_name = ph.package_name JOIN hotels AS h ON ph.hotel_id = h.hotel_id WHERE p.package_price = (SELECT MAX(package_price) FROM package);
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all

Number of rows: 25

Filter rows: Search this table

Extra options

most_expensive_package	max_package_price	hotel_for_most_expensive
Kuakata Exploration	95000	Bogura Heritage Inn

Showing rows 0 - 1 (2 total, Query took 0.0010 seconds.)

```
SELECT p.package_name AS cheapest_package, p.package_price AS min_package_price, h.hotel_name AS hotel_for_cheapest FROM package AS p JOIN package_hotel_service AS ph ON p.package_name = ph.package_name JOIN hotels AS h ON ph.hotel_id = h.hotel_id WHERE p.package_price = (SELECT MIN(package_price) FROM package);
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all

Number of rows: 25

Filter rows: Search this table

Extra options

cheapest_package	min_package_price	hotel_for_cheapest
Hill Station Retreat: Bandarban	110000	Panorama Hill Resort
Hill Station Retreat: Bandarban	110000	Mountain View Retreat

4. Which user has booked the “Hill Station Retreat: Bandarban”-Family package?

Showing rows 0 - 0 (1 total, Query took 0.0011 seconds.)

```
SELECT users.user_name FROM users, booking WHERE booking.user_id = users.user_id AND booking.package_name = "Hill Station Retreat: Bandarban" AND booking.package_type = "FAMILY";
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all

Number of rows: 25

Filter rows: Search this table

Extra options

← T →

user_name

☐ Edit ☐ Copy ☐ Delete Farhan Ahmed

5. How many users stayed in “Riverfront Bliss”?

Your SQL query has been executed successfully.

```
SELECT hotels.hotel_name, COUNT(DISTINCT users.user_id) AS total_users_stayed FROM user_hotel AS uh, users, hotels WHERE uh.hotel_id = hotels.hotel_id AND users.user_id = uh.user_id AND hotels.hotel_name = "Riverfront Bliss";
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

Extra options

hotel_name	total_users_stayed
Riverfront Bliss	2

6. How many hotels are connected to Bandarban’s package?

Your SQL query has been executed successfully.

```
SELECT package_name, COUNT(DISTINCT hotel_id) AS total_hotels_connected FROM package_hotel_service WHERE package_name LIKE "%Bandarban";
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

Extra options

package_name	total_hotels_connected
Hill Station Retreat: Bandarban	2

7. What is the route of the most expensive transport?

✓ Showing rows 0 - 2 (3 total, Query took 0.0012 seconds.)

```
SELECT transportation_type, route FROM transportation WHERE fare = (SELECT MAX(fare) FROM transportation);
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

	transportation_type	route
<input type="checkbox"/> Edit Copy Delete	Life by Air	Direct Flight with Business Class Amenities
<input type="checkbox"/> Edit Copy Delete	Life by Train	Direct Flight with Business Class Amenities
<input type="checkbox"/> Edit Copy Delete	Life by Air	Direct Flight with Business Class Amenities

8. How many bookings were made in packages that are connected to hotel “Mangrove Lodge”?

Your SQL query has been executed successfully.

```
SELECT hotels.hotel_name, COUNT(*) AS total_bookings FROM booking, package_hotel_service, hotels WHERE hotels.hotel_id = package_hotel_service.hotel_id AND package_hotel_service.package_name = booking.package_name AND hotels.hotel_name = "Mangrove Lodge";
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Extra options

hotel_name	total_bookings
Mangrove Lodge	3

9. How many users booked packages for Kuakata?

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
SELECT p.package_name, h.hotel_name, COUNT(*) AS total_bookings FROM booking AS b JOIN package AS p ON b.package_name = p.package_name JOIN package_hotel_service AS ph ON p.package_name = ph.package_name JOIN hotels AS h ON ph.hotel_id = h.hotel_id WHERE p.package_name = 'Kuakata Exploration' GROUP BY p.package_name, h.hotel_name;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

package_name	hotel_name	total_bookings
--------------	------------	----------------

10. How many attractions are there in each category?

✓ Showing rows 0 - 2 (3 total, Query took 0.0013 seconds.)

```
SELECT category, COUNT(DISTINCT attraction_name) as numbers_of_attractions FROM attraction GROUP BY category;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▾

Extra options

category	numbers_of_attractions
Adventure	2
Beach	2
Nature	6

11. Where did Farhan Ahmed go on tour?

✓ Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

```
SELECT u.user_name, r.package_name FROM review AS r JOIN users AS u ON r.user_id = u.user_id WHERE u.user_name = 'Farhan Ahmed';
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▼

Extra options

user_name	package_name
Farhan Ahmed	Sajek Valley Expedition
Farhan Ahmed	Hill Station Retreat: Bandarban

12. In which hotel did Sadia Ahmed stay on her tour?

✓ Showing rows 0 - 0 (1 total, Query took 0.0005 seconds.)

```
SELECT u.user_name, h.hotel_name FROM user_hotel AS uh JOIN users AS u ON uh.user_id = u.user_id JOIN hotels AS h ON uh.hotel_id = h.hotel_id WHERE u.user_name = 'Sadia Ahmed';
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▼

Extra options

user_name	hotel_name
Sadia Ahmed	Riverfront Bliss

13. What are the contact details of Nusrat Jahan?

✓ Showing rows 0 - 0 (1 total, Query took 0.0005 seconds.)

```
SELECT * FROM users WHERE user_name = "Nusrat Jahan";
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▼

Extra options

	user_id	user_name	user_email	user_nid	user_contact
Edit Copy Delete	2008	Nusrat Jahan	nusrat@example.com	901234567890	01109876543

14. Which transport type was booked by Ahmed Khan?

✓ Showing rows 0 - 0 (1 total, Query took 0.0010 seconds.)

```
SELECT DISTINCT user_name, transportation_type FROM users, booking, pack_trans,
transportation WHERE users.user_id = booking.user_id AND booking.package_name =
pack_trans.package_name AND pack_trans.transportation_id =
transportation.transportation_id AND users.user_name = 'Ahmed Khan';
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 ▼

Extra options

user_name	transportation_type
Ahmed Khan	Life by Train

15. How many Direct routes are there in the transport system?

Your SQL query has been executed successfully.

```
SELECT COUNT(*) AS total_direct_routes FROM transportation WHERE route LIKE 'Direct%';
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Extra options

total_direct_routes
8