Relational Schema

User(<u>user_id</u>, username)

- This is BCNF because username is have only FD on user_id (username -> user_id)

UserPreference(<u>preference_id, user_id</u>, budget, urbanity, weather, arrival_preference, departure_preference)

- This is BCNF because budget and urbanity only have FD on preference_id

Plan(<u>plan_id</u>, plan_name, cost)

- This table is in BCNF, property_id determines all the other attributes

Provider(<u>provider_id</u>, provider_name, contact)

Property(<u>property_id, location_id, amenity_id, photo_id, review_id, activity_id</u>, property_name, property_description)

Location(<u>location_id</u>, country, city)

Neighbourhood(<u>neighbourhood_name</u>, <u>location_id</u>, neighbourhood_description)

Amenities(<u>amenity_id</u>, amenity_name, amenity_description)

Photos(<u>photo_id</u>, photo_name, url)

Review(<u>rating_id</u>, rating_type, rating_ value, review_date)

Activities(<u>activity_id</u>, activity_name, activity_desciption, age_requirement)

Booking(<u>booking_id, property_id</u>, <u>user_id,</u> arrival_date, departure_date)

Payment(<u>payment_id, booking_id</u>, total_cost, payment_status, confirmation_code)

Takes(<u>payment_id, paypal_id, crypto_id, visa_id</u>)

PayPal(<u>paypal_id</u>, paypal_name, paypal_email)

Visa(<u>visa_id</u>, cardholder_name, card_number, security_code, expiration_date)

Crypto(<u>crypto_id</u>, crypto_name, crypto_address)

All of these tables are within compliance of BCNF because their attributes are all dependent on their primary keys.