OUTLAND ADVENTURE CASE STUDY PRESENTATION CSD310 – 11.2 ASSIGNMENT

GROUP INTRODUCTION

Meet Our Team:

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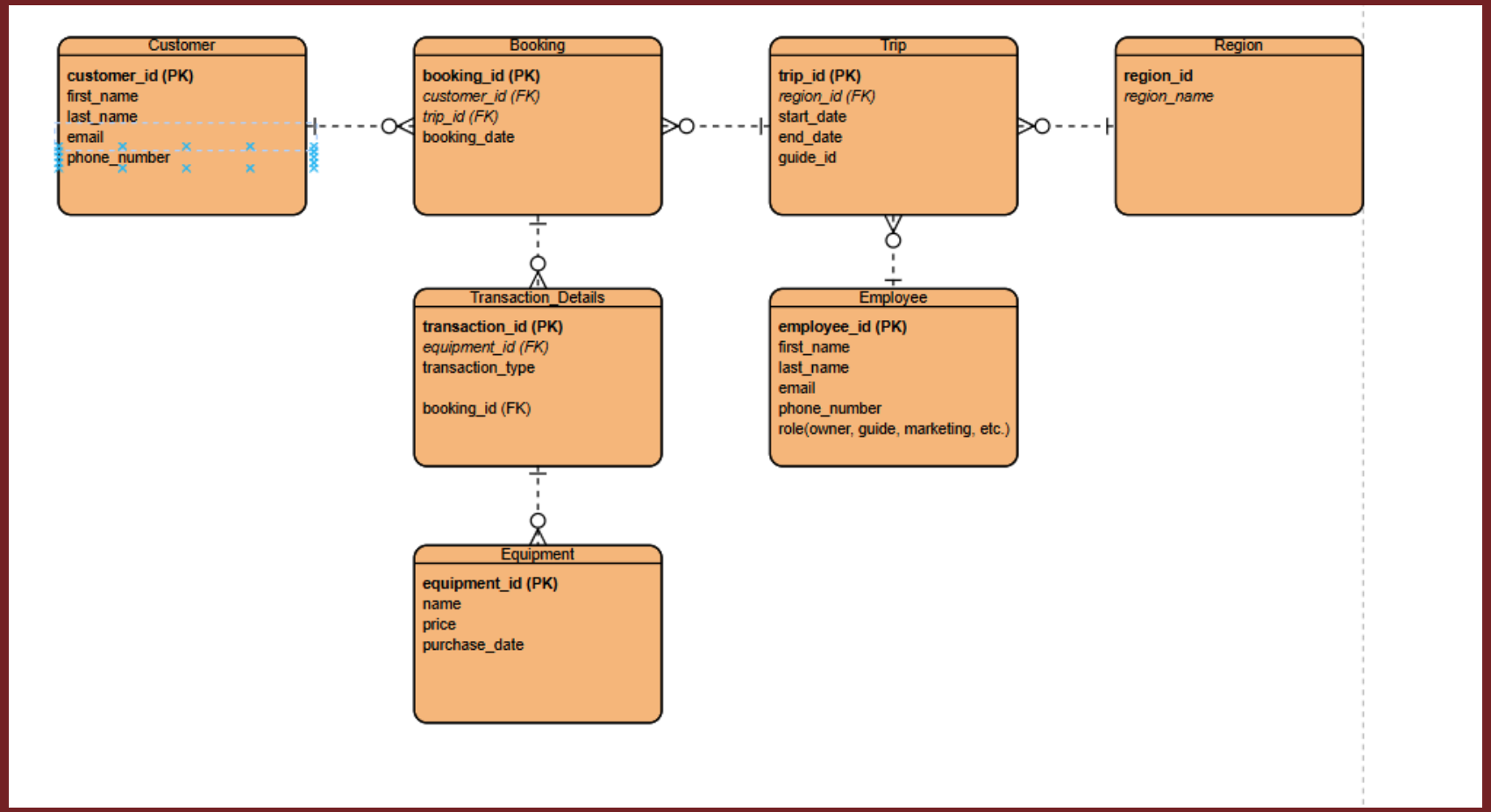
CASE STUDY OVERVIEW

OUTLAND ADVENTURE: BUSINESS

- Founded by Blythe Timmerson and Jim Ford, outdoor enthusiast
- Initially part-time, but grew into a full-time adventure travel business
- Services: guided hiking/camping trips, gear sales & rentals
- Staff includes guides, marketing specialist, inventory manager, and new eCommerce developer

OUTLAND ADVENTURE: FINAL ERD



KEY GOALS

Optimize	Optimize operations
Improve	Improve decision-making with data
Analyze	Analyze sales, trends, and inventory

KEY BUSINESS QUESTIONS

Outland Adventure asked us to help answer:

1. Are equipment sales worth continuing?
2. Are bookings declining in any specific region?
3. Are there aging inventory items needing replacement?

EQUIPMENT SALES VS RENTALS – REPORT 1

Question: Do enough customers buy equipment to keep sales going?

What we measure:

- Total equipment sold vs rented
- Revenue from each

Assumptions: each transaction record included the type (sale/rental) and associated cost

REPORT 1 – SAMPLE OUTPUT

Insight: While rentals are more frequent, sales generate higher revenue. Maintaining both models is advisable.

```python
import mysql.connector

# Connect to MySQL
conn = mysql.connector.connect(
    host='localhost',
    user='root',
    password='Starship12!',
    database='outland_adventures'
)
cursor = conn.cursor()

print("Equipment Sales vs Rentals")
print("=" * 55)

query = """
SELECT
    CONCAT(UPPER(LEFT(transaction_type, 1)), LOWER(SUBSTRING(transaction_type, 2))) AS transaction_type,
    COUNT(*) AS total_transactions,
    SUM(e.price) AS total_revenue
FROM Transaction_Details t
JOIN Equipment e ON t.equipment_id = e.equipment_id
GROUP BY transaction_type;
"""

cursor.execute(query)
results = cursor.fetchall()

print("Transaction Type | Total Transactions | Total Revenue")
print("-" * 55)

for row in results:
    print(f"{row[0]:<16} | {row[1]:<18} | ${row[2]:.2f}")

print("-" * 55)

cursor.close()
conn.close()
```

```
tlh@MacBook-Pro-2 Module-11 % python3 question1.py
Equipment Sales vs Rentals
=======================================================
Transaction Type | Total Transactions | Total Revenue
-------------------------------------------------------
Rental           | 3                  | $485.00
Sale             | 2                  | $270.00
-------------------------------------------------------
```

BOOKING TRENDS BY REGION– REPORT 2

Question: Is there a downward trend in bookings in Africa, Asia, or Southern Europe?

What we measure:

- Annual bookings grouped by region and year

Assumptions: Bookings data contains region and date of trip

REPORT 2 – SAMPLE OUTPUT

Insight: Southern Europe is experiencing a clear decline. Consider reducing trips or increasing marketing there.

```python
import mysql.connector

# Connect to MySQL
conn = mysql.connector.connect(
    host='localhost',
    user='root',
    password='Starship12!',
    database='outland_adventures'
)
cursor = conn.cursor()

print("Booking Trends by Region")
print("=" * 55)

query = """
SELECT
    t.region,
    YEAR(b.booking_date) AS year,
    COUNT(*) AS total_bookings
FROM Booking b
JOIN Trip t ON b.trip_id = t.trip_id
GROUP BY t.region, year
ORDER BY t.region, year;
"""

cursor.execute(query)
results = cursor.fetchall()

print("Region           | Year | Total Bookings")
print("-" * 55)

for row in results:
    print(f"{row[0]:<16} | {row[1]}  | {row[2]}")

print("-" * 55)

cursor.close()
```

```
tlh@MacBook-Pro-2 Module-11 % python3 question_2.py
Booking Trends by Region
=======================================================
Region           | Year | Total Bookings
-------------------------------------------------------
Africa           | 2024  | 1
Asia             | 2024  | 2
Southern Europe  | 2024  | 2
-------------------------------------------------------
```

AGING INVENTORY – REPORT 3

Question: Are there inventory items over 5 years old?

What we measure:

- Equipment purchase date
- Current item age

Assumptions: The database includes each item's purchase date and unique ID.

REPORT 3 – SAMPLE OUTPUT

Insight: Several items exceed 5 years. Recommend replacement for safety and quality.

```python
import mysql.connector

# Connect to MySQL
conn = mysql.connector.connect(
    host='localhost',
    user='root',
    password='Starship12!',
    database='outland_adventures'
)
cursor = conn.cursor()

print("Equipment Older Than 5 Years")
print("=" * 55)

query = """
SELECT
    name,
    purchase_date,
    TIMESTAMPDIFF(YEAR, purchase_date, CURDATE()) AS age_years
FROM Equipment
WHERE TIMESTAMPDIFF(YEAR, purchase_date, CURDATE()) > 5;
"""

cursor.execute(query)
results = cursor.fetchall()

print("Equipment Name       | Purchase Date | Age (Years)")
print("-" * 55)

for row in results:
    print(f"{row[0]:<20} | {row[1]}   | {row[2]}")

print("-" * 55)

cursor.close()
conn.close()
```

```
Equipment Older Than 5 Years
=======================================================
Equipment Name       | Purchase Date | Age (Years)
-------------------------------------------------------
Mountain Tent        | 2015-05-10   | 10
Handheld GPS         | 2018-02-15   | 7
Camping Stove        | 2016-12-05   | 8
-------------------------------------------------------
```

THANK YOU

Bravo Team – CSD310 – 11.2 Assignment