# Databases – Midterm Sprint

**Normalization:**

- Explain how the tables are in 3NF:

Each of these tables are in 3NF because each column that is non key is independent of other non-key columns. Theres no repeating groups, there are no transitive dependencies, and they are fully dependent on their ID's. I added the forgein keys to the rentals table because we needed to do that in order to perform the required queries. However, they don't have any additional dependencies.

**Data Insertion:**

1. I used node index.js insert.. to insert the data into the movies table
2. I used node index.js insert_customer to insert the data into the customers table
3. I used node index.js insert_rental to insert the data into the rentals table

The queries that I created in the queries.sql file, when I inputted them in PG Admin, they worked perfectly.

| | movie_id [PK] integer | title character varying (100) | release_year integer | genre character varying (50) | director character varying (50) |
|---|---|---|---|---|---|
| 1 | 1 | The Dark Knight | 2008 | Action | Christopher Nolan |
| 2 | 2 | Purple Hearts | 2022 | Romance | Elizabeth Allen |
| 3 | 3 | Grown Ups | 2010 | Comedy | Dennis Dugan |
| 4 | 4 | The Shawshank Redemption | 1994 | Drama | Frank Darabont |
| 5 | 5 | Forrest Gump | 1994 | Drama | Robert Zemeckis |

| | customer_id [PK] integer | first_name character varying (50) | last_name character varying (50) | email character varying (100) | phone_number character varying (20) |
|---|---|---|---|---|---|
| 1 | 1 | Tom | Brady | tom.brady@example.com | 555-1234 |
| 2 | 2 | Patrick | Mahomes | patrick.mahomes@example.com | 555-5678 |
| 3 | 3 | Aaron | Rodgers | aaron.rodgers@example.com | 555-8765 |
| 4 | 4 | Lamar | Jackson | lamar.jackson@example.com | 555-4321 |
| 5 | 5 | Jordan | Love | jordan.love@example.com | 555-1357 |

| | rental_id [PK] integer | customer_id integer | movie_id integer | rental_date date | return_date date |
|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 2024-10-01 | 2024-10-15 |
| 2 | 2 | 2 | 2 | 2024-10-02 | 2024-10-16 |
| 3 | 3 | 3 | 3 | 2024-10-03 | 2024-10-17 |
| 4 | 4 | 4 | 4 | 2024-10-04 | 2024-10-18 |
| 5 | 5 | 5 | 5 | 2024-10-05 | 2024-10-19 |
| 6 | 6 | 1 | 2 | 2024-10-06 | 2024-10-20 |
| 7 | 7 | 2 | 3 | 2024-10-07 | 2024-10-21 |
| 8 | 8 | 3 | 4 | 2024-10-08 | 2024-10-22 |
| 9 | 9 | 4 | 5 | 2024-10-09 | 2024-10-23 |
| 10 | 10 | 5 | 1 | 2024-10-10 | 2024-10-24 |