Functional Dependencies

CUSTOMER

Custid → firstname
Custid → lastname
Custid → status
Custid → gender
Custid → dob
Custid → emailid
Custid → address
Custid → phoneno
Custid → password

emailid → Custid
emailid → firstname
emailid → lastname
emailid → status
emailid → gender
emailid → dob
emailid → address
emailid → phoneno
emailid → password

Both Custid and emailid can be keys. However, we will be using Custid as Primary Key. No BCNF violations.

CUSTOMER_RATING

Custid, movie_id → title, rating

MVD:

Custid **->>** title, movie_id, rating

GENRE

Genre_id → name

MOVIE

Movie_id → title
Movie_id → director
Movie_id → production_company
Movie_id → genre_id

Movie_id → minimal_age
Movie_id → movie_episode_id

Title, movie_episode_id → director
Title, movie_episode_id → production_company
Title, movie_episode_id → genre_id
Title, movie_episode_id → minimal_age
Title, movie_episode_id → movie_id

MVD:

Title, movie_episode_id **->>** director, production_company, genre_id, minimal_age, movie_id

Movie_id and (title, movie_episode_id) form keys, so we are not splitting the table. There won't be any BCNF violations.

MEDIUM

Medium_id → medium_type

EXEMPLAR

Exemplar_id → Exemplar_name
Exemplar_id → address
Exemplar_id → phone_no

MOVIESOFFERED

offered_id → exemplar_id
offered_id → movie_id
offered_id → medium_id
offered_id → price_per_day
offered_id → availability_status

BORROWING

Borrowing_id → offered_id
Borrowing_id → custid
Borrowing_id → start_date
Borrowing_id → end_date
Borrowing_id → total_price
Borrowing_id → VAT