

Data and Applications - Project Phase -3

Team 40 - RNA

Modifications made to convert to the Relational model

- Date is now "Date" datatype instead of a composite attribute.
- Removed Subscribed attribute from Viewer instead made a new relation "VIEWER SUBSCRIBES TO CHANNEL"

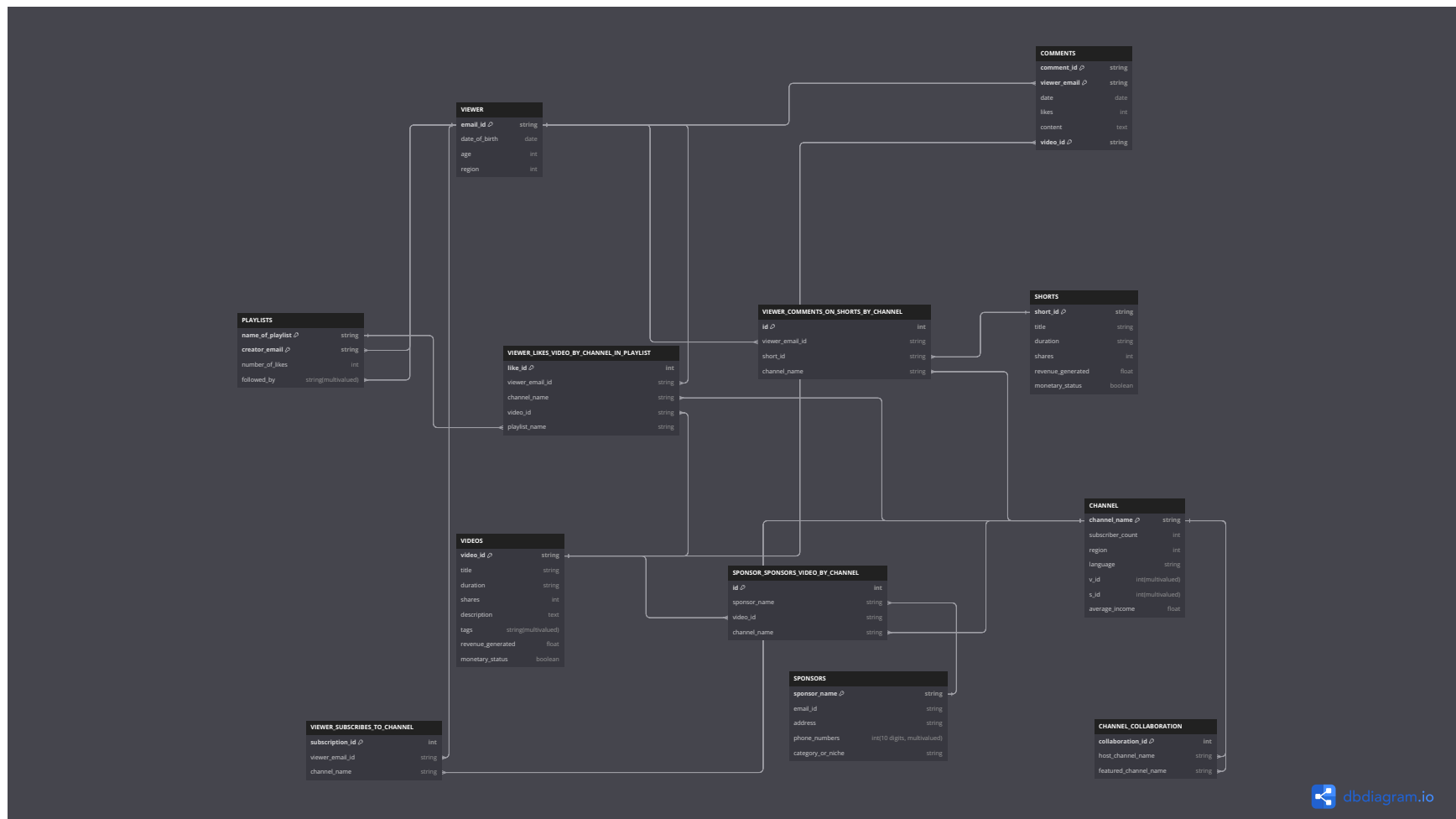


Figure 1: Modifications

Modifications made while converting to the 1NF

Removed all multivalued attributes

- **Removed attributes are:**

- The phone number in the "Sponsors" category has been removed. Instead, a new relation named "Contact Info" has been established, encompassing the phone number.
- The "Followed By" attribute in the "Playlist" category has been eliminated. In its place, a new relation called "Viewer Follows Playlist" has been introduced.
- Both Video IDs and Short IDs within the "Channel" category have been excluded. Subsequently, new relations named "Channel Shorts" and "Channel Videos" have been created.

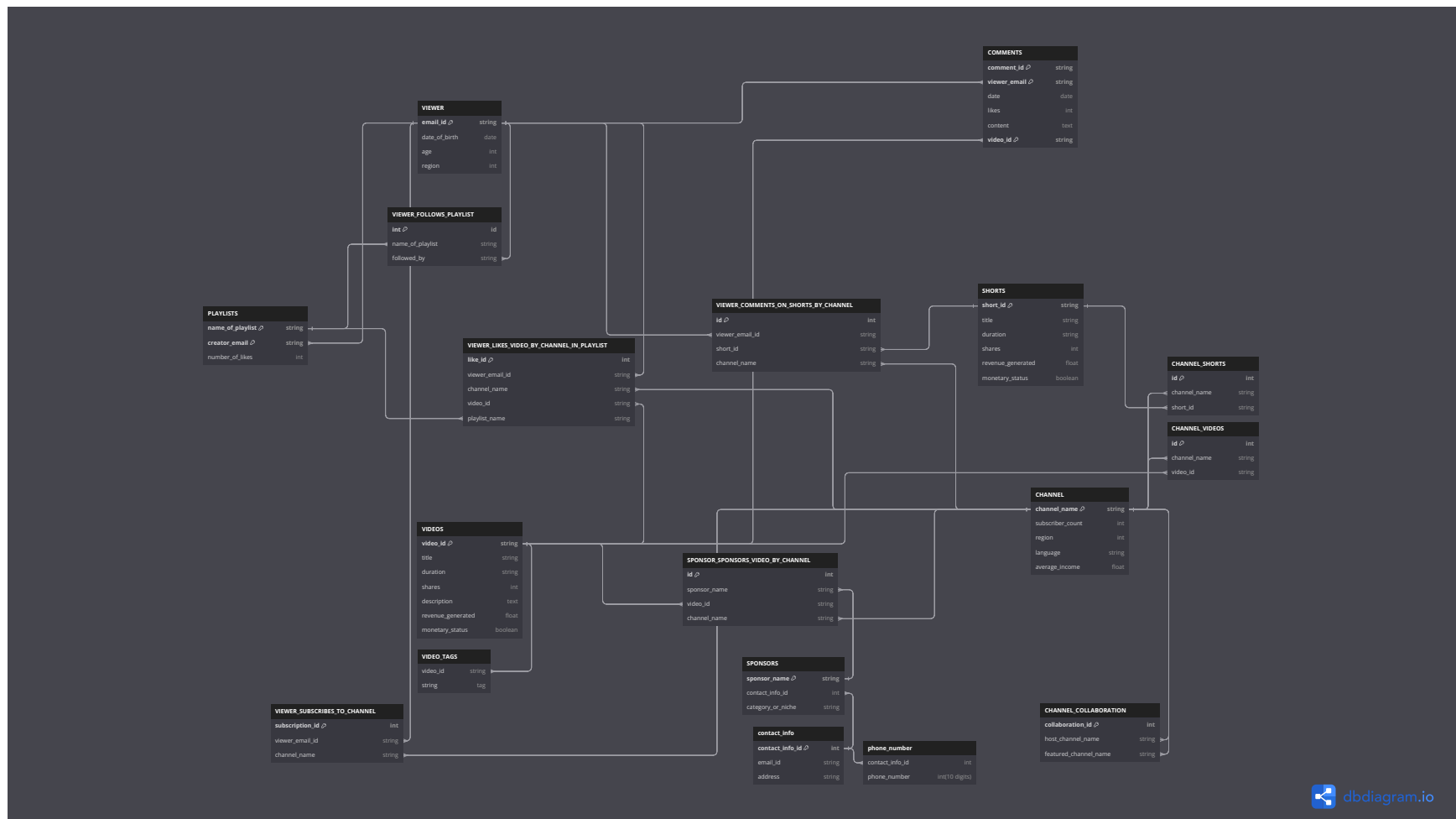


Figure 2: After normalizing to 1NF

Modifications made while converting to the 2NF

No additional changes were deemed necessary to achieve Second Normal Form (2NF). All attributes can be ascertained by the primary key without reliance on any partial components (demonstrating full functional dependency).

Modifications made while converting to the 3NF

Removed all derived attributes

- **Removed attributes are:**

- The derived attribute age in Viewer now resides in a new relation "DOB AGE".

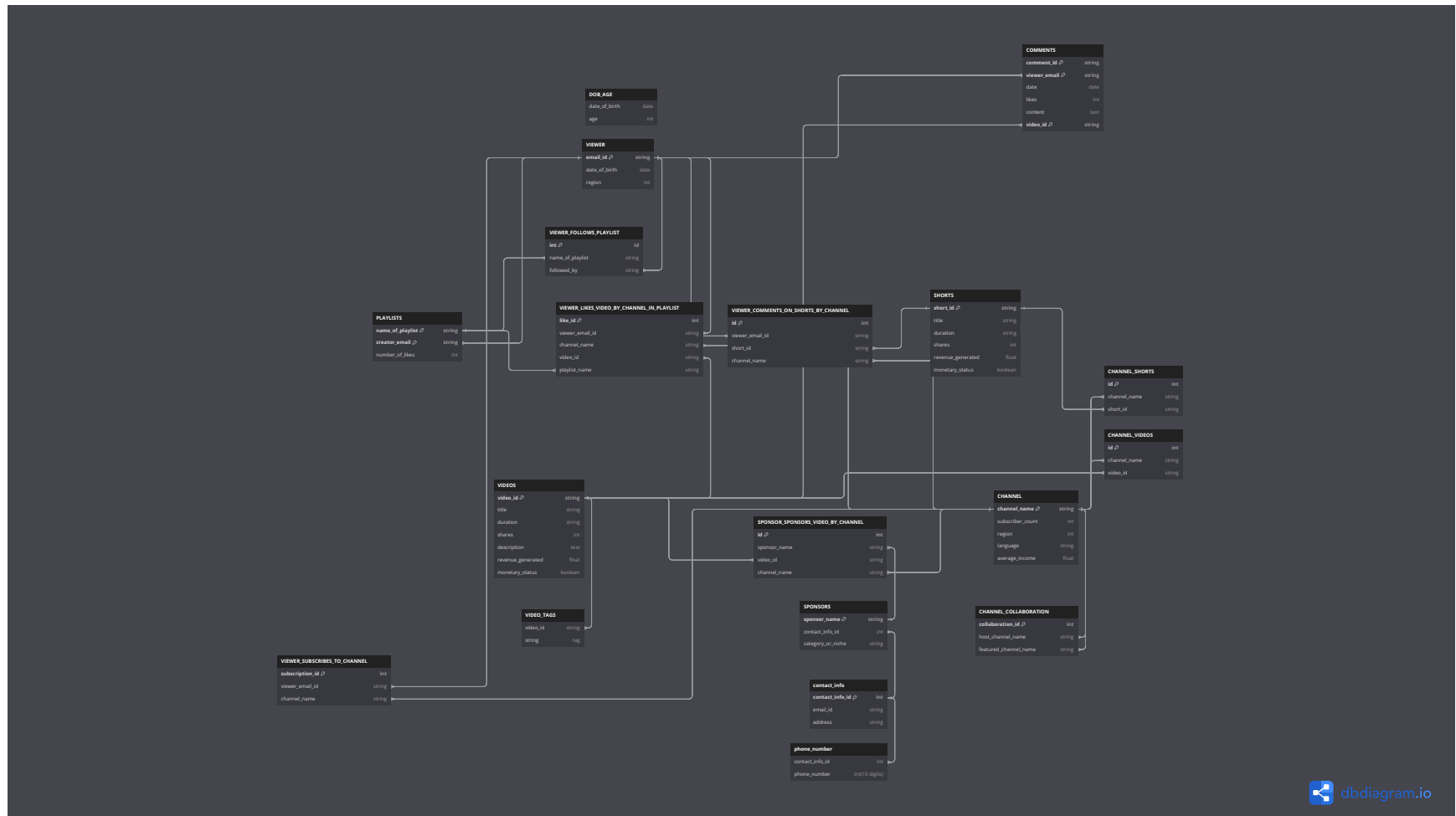


Figure 3: After normalizing to 3NF