1. Write the user stories you think could support your design

* As a YouTube User, I want to be able to search and watch videos on the site so that I can have content of my interest.
* As a YouTube user, I want to be able to subscribe to channels to receive notifications when they publish new videos
* As a YouTube user, I want to be able to leave comments on videos to express my opinions.
* As a YouTube user, I want to be able to like or dislike (react) videos to express my opinion on their content.
* As a YouTube user, I want to be able to see statistics about the videos, such as the number of views, likes, comments, etc.
* As a YouTube user, I want to be able to create playlists to organize and save videos that interest me.
* As a YouTube user, I want to be able to receive personalized video recommendations based on my interests and browsing behavior on the platform.
* As a content creator on YouTube, I want to be able to live stream to interact in real time with my audience.
* As a content creator on YouTube, I want to be able to upload videos to my channel to share my content with my audience.
* As a YouTube administrator, I want to be able to manage and moderate comments to maintain a safe and respectful environment on the platform.

2. Write down the 10 steps methodology to get the Data Structure Entity-Relationship Model.

STEP 0: Definir componentes

* Usuario
* Video
* Canal
* Comentario
* Me gusta/ No me gusta
* Transmisión en vivo

STEP 1: Definir entidades

* e1. User
* e2. Video
* e3.Chanel
* e4.Comment
* e5I like it/ I don't like
* e.6 Live broadcast
* e.7 Playlist
* e.8 Video category
* e.9 Playback history
* e.10 Subscription
* e.11 Video statistics

STEP 2:

* e1: User ID, username, email, password, registration date
* e2: Video ID, title, description, upload date, duration, number of views.
* e3: Channel ID, channel name, description, creation date, subscribers
* e4: Comment ID, content, post date, user who posted it.
* e5: ID de me gusta/no me gusta, usuario que lo dio, video al que pertenece
* e6: Live stream ID, title, description, start date and time, user who started it
* e7: Playlist ID, name, description, user who created it, included videos
* e8: Category ID, name, description, associated videos, etc.
* e9: History ID, associated user, viewed videos, viewing date and time
* e10:Subscription ID, subscriber user, channel subscribed to, subscription date
* e11: Statistics ID, associated video, number of views, likes, dislikes, comments

STEP3:

|  | e1 | e2 | e3 | e4 | e5 | e6 | e7 | e8 | e9 | e10 | e11 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| e1 |  | ✔ |  | ✔ | ✔ |  | ✔ |  | ✔ | ✔ | ✔ |
| e2 | ✔ |  |  |  | ✔ | ✔ | ✔ | ✔ |  |  | ✔ |
| e3 |  | ✔ |  |  |  |  |  |  |  | ✔ |  |
| e4 | ✔ | ✔ |  |  |  |  |  |  |  |  |  |
| e5 | ✔ | ✔ |  |  |  |  |  |  |  |  |  |
| e6 |  |  |  |  |  |  |  |  |  |  |  |
| e7 | ✔ | ✔ |  |  |  |  |  |  |  |  |  |
| e8 |  | ✔ |  |  |  |  |  |  |  |  |  |
| e9 | ✔ |  |  |  |  |  |  |  |  |  |  |
| e10 | ✔ |  | ✔ |  |  |  |  |  |  |  |  |
| e11 | ✔ | ✔ |  |  |  |  |  |  |  |  |  |

STEP 4. TIPOS DE RELACIONES

"<-------"indicates a one-to-many relationship (1-n)

"-------" indicates a many-to-many relationship (n-n)

"------->"indicates a many-to-one relationship (n-1)

e1 <—---- e2 1 a muchos

e1 <—---- e4

e1 <—---- e5

e1 <—---- e7

e1 <—---- e9

e1 <—----> e10

e1 <—---- e11

e2 <—---- e1

e2 <—---- e5

e2 <—---- e6

e2 <—---- e7

e2 <—---- e8

e2 <—---- e11

e3 <—---- e2

e3 <—----> e10

e4 <—---- e1

e4 <—---- e2

e5 <—---- e1

e5 <—---- e2

e7<—---- e1

e7 <—---- >e2

e8 <—---- e2

e9 <—---- e1

e10 <—---- e1

e10<—---- >e3

e11 <—---- e1

e11 <—---- e2

STEP 5

3. Write any technical decision/consideration you made in the design process

An entity-relationship (ER) model was used to represent the entities, attributes and relationships between the different components of the YouTube system. This provided a clear view of the database structure and facilitated its design and development.