DNA – PHASE – III(Team 39)

Modifications :
Insertions – We have added some attributes in some of the relationships to establish strong primary key and foreign relationships.
They are -
Char_Id,A_ID in characters relation
Director_ID in Director table
Actor_ID in Actors table
Song_ID in Songs table
D_Id in assistant Directors table
A_Id and S_Id in Movie table

Normalization :
Changes made while converting to 1NF :
The database tables adhere to the principles of First Normal Form, where each attribute is assigned a well-defined data type, ensuring that all values are atomic and singular within their respective domains. Every relation possesses a primary key, and there are no instances of duplicate or repeating attributes. Therefore, there are no changes required while converting to 1NF form.
Changes made while converting to 2NF:
The Songs Table has been meticulously organized into two distinct parts based on the Music Director, effectively designating it as the candidate key for this partition.

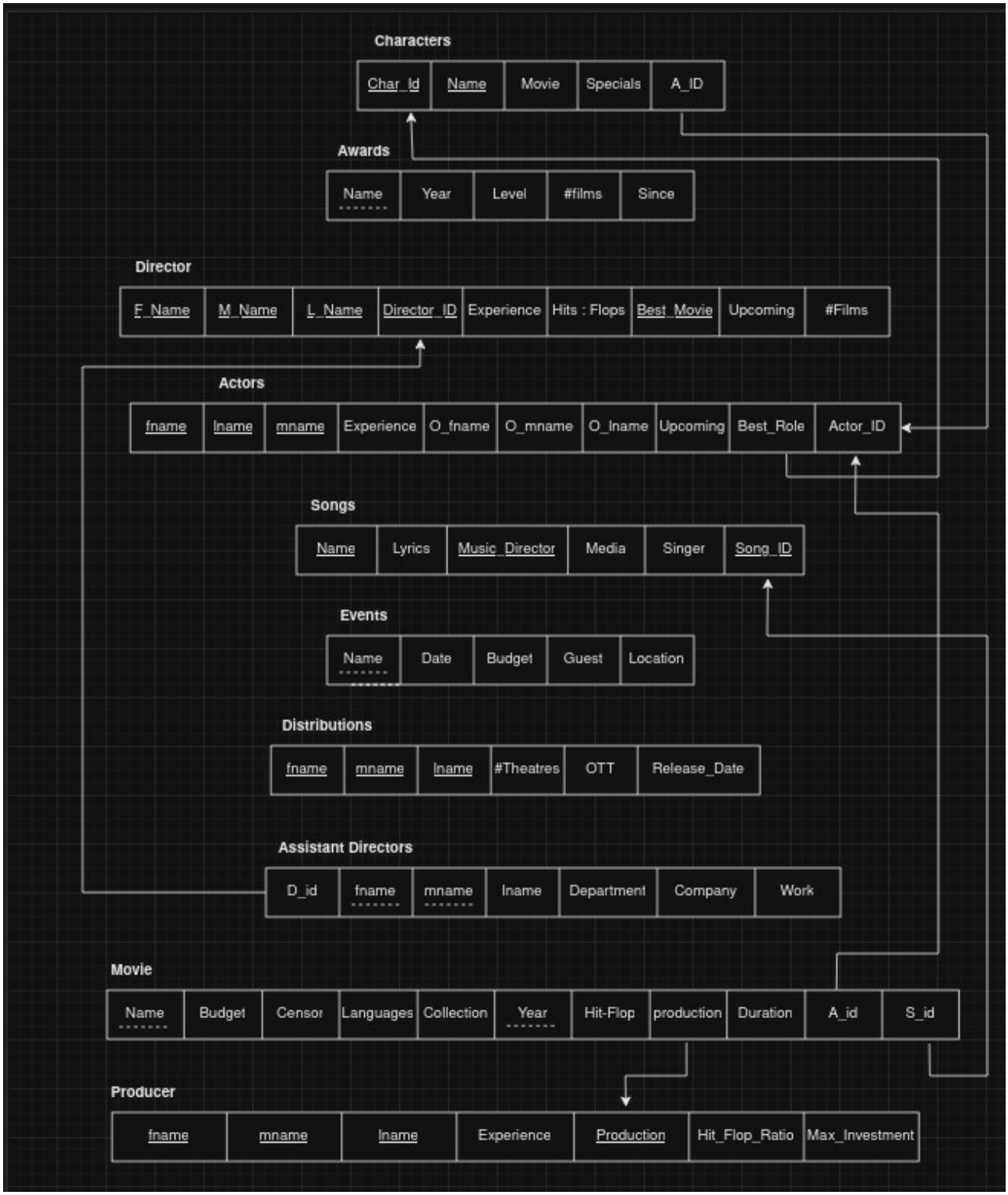
The Actors data, similarly, has undergone a strategic division into two tables. In the first table, the candidate keys are comprised of the first name (fname), middle name (mname), and last name (lname). In the second table, a parallel arrangement is established with O_fname, O_mname, and O_lname serving as the designated candidate keys.

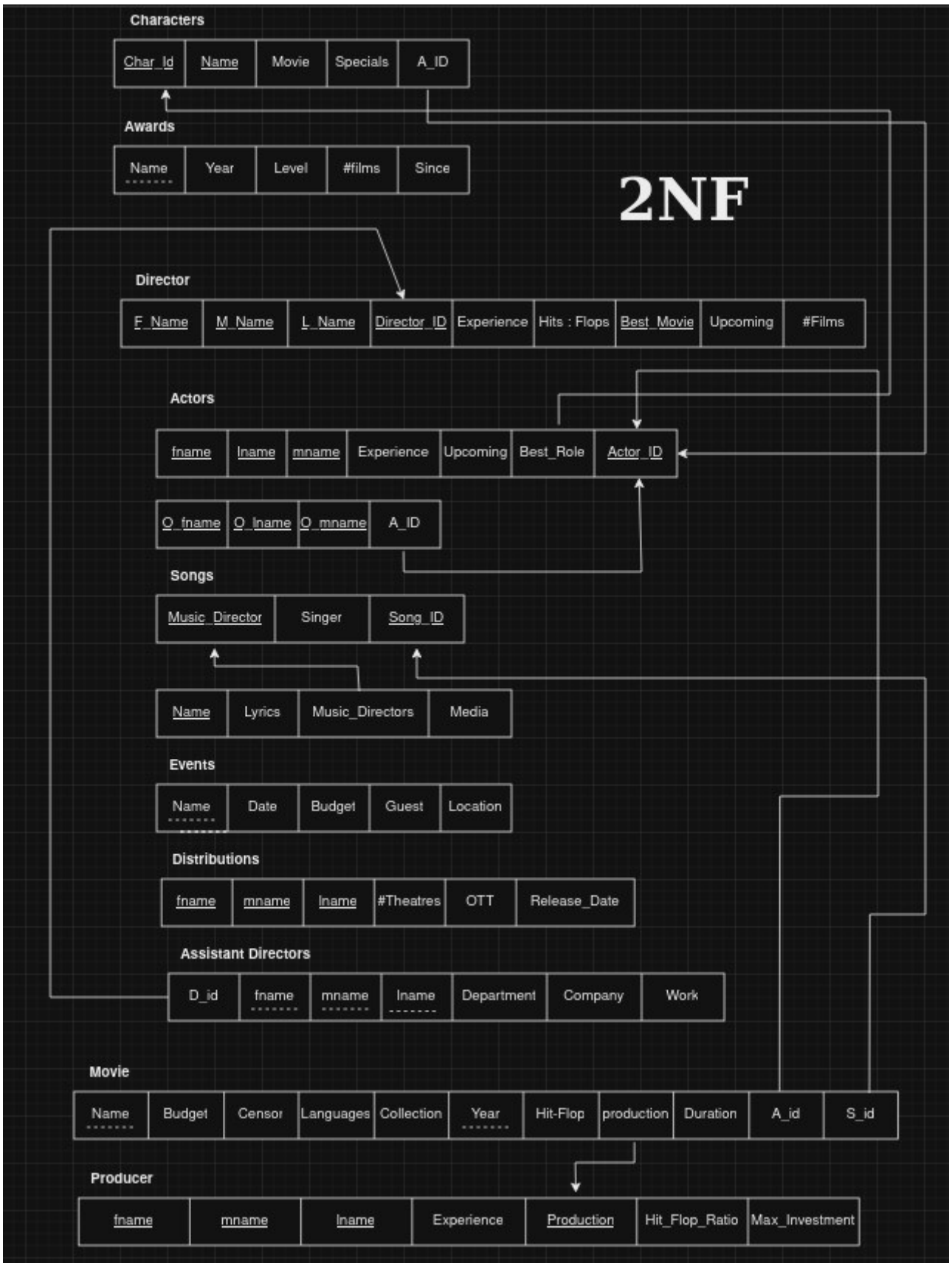
This meticulous organization of data ensures a structured and efficient database schema, optimizing the storage and retrieval of information in a systematic manner.

Changes made while converting to 3NF :

We don’t need to go to Third Normal Form (3NF) because the tables are already cool without any transitive dependencies. We’ve already made sure that non-prime attributes totally depend on the primary key, and any potential extra dependencies have been sorted out. Therefore, we’re sticking to a design that avoids redundancy and makes our database easy to handle.

Relational Model :


Characters
Char_Id
Name
Movie
Specials
A_ID
Awards
Name
Year
Level
#films
Since
Director
F_Name
M_Name
L_Name
Director_ID
Experience
Hits : Flops
Best_Movie
Upcoming
#Films
Actors
fname
lname
mname
Experience
O_fname
O_mname
O_lname
Upcoming
Best_Role
Actor_ID
Songs
Name
Lyrics
Music_Director
Media
Singer
Song_ID
Events
Name
Date
Budget
Guest
Location
Distributions
fname
mname
lname
#Theatres
OTT
Release_Date
Assistant Directors
D_id
fname
mname
lname
Department
Company
Work
Movie
Name
Budget
Censor
Languages
Collection
Year
Hit-Flop
production
Duration
A_id
S_id
Producer
fname
mname
lname
Experience
Production
Hit_Flop_Ratio
Max_Investment


Characters
Char_Id
Name
Movie
Specials
A_ID
Awards
Name
Year
Level
#films
Since
2NF
Director
F_Name
M_Name
L_Name
Director_ID
Experience
Hits : Flops
Best_Movie
Upcoming
#Films
Actors
fname
lname
mname
Experience
Upcoming
Best_Role
Actor_ID
O_fname
O_lname
O_mname
A_ID
Songs
Music_Director
Singer
Song_ID
Name
Lyrics
Music_Directors
Media
Events
Name
Date
Budget
Guest
Location
Distributions
fname
mname
lname
#Theatres
OTT
Release_Date
Assistant Directors
D_id
fname
mname
lname
Department
Company
Work
Movie
Name
Budget
Censor
Languages
Collection
Year
Hit-Flop
production
Duration
A_id
S_id
Producer
fname
mname
lname
Experience
Production
Hit_Flop_Ratio
Max_Investment