**Stage 3: Relational Schema and Revised ER**

**(Movie Database)**

**Group:** **Abdul Aaquib (800795370) 3/11/2013**

**Nikhil Dahake (800804352)**

**Pritesh Bhere (800776144)**

1. The relational schema of your database. Remember to include all keys and dependencies (e.g. functional dependencies) as appropriate.

**The Relation Schema** of our database is as follows:

Movie (filmID, title, year, Avg\_rating, description)

Genre (filmID, genre)

Reviews (filmID, SSN, Text, Rating)

Acts\_in (SSN, filmID)

Directs (SSN, filmID)

Person (SSN, Fname, Lname, gender)

User (SSN, username, password)

Likes (SSN, genre)

Recommends (SSN, filmID)

Theatre (TID, Name, City)

Now\_Playing (TID, filmID, date, time)

**Functional Dependencies:**

Movie: filmID -> title, year, avg\_rating, description

Reviews: filmID, SSN -> Text, Rating

Person: SSN -> Fname, Lname, gender

User: username -> SSN, password

Theater: TID -> Name, City

Now\_Playing: TID, filmID -> date, time

**Primary Keys** are underlined in the above Relation Schema.

**The Foreign Keys** are as follows:

Genre: filmID references Movie (filmID)

Reviews: filmID references Movie (filmID)

SSN references User (SSN)

Acts\_in: SSN references Person (SSN)  
 filmID references Movie (filmID)

Directs: SSN references Person (SSN)  
 filmID references Movie (filmID)

User: SSN references Person (SSN)

Likes: SSN references User (SSN)

Recommends: SSN references User (SSN)  
 filmID references Movie (filmID)

Now\_Playing: TID references Theater (TID)  
 filmID references Movie (filmID)

1. The ER diagram. State if that is a revised one. If it is revised, discuss where you revised it, and why. If it not revised, state that it has not been revised.

We have used the same ER diagram. There was no need to revise it. But during conversion of the ER to relational schema, the actor and director entities were not included as tables since they had only 1 attribute and the information could also be conveyed through the Acts\_in and Directs relations which were converted to tables in the schema. The ER diagram has been included in the next page.

1. Describe the final choice for software platforms/languages that you will be using.
2. **Database:** We are using MySQl to design and implement our database; it will be hosted on a local machine.
3. **IDE:** Visual studio 2010 to design and develop the User Interface.
4. **Language:** C# for creating a Windows based GUI application.
5. Describe the labor division among group members.

Abdul Aaquib – Database design and implementation, Queries, Testing

Nikhil Dahake – Database design, UI design and implementation, Testing

Pritesh – Database design, UI implementation and Integration, Testing

1. Describe where you will get data for your application. Do you get it from the Web, some other application, or do you make it up?

We will populate the database ourselves.

**ER Diagram:**

