

The IMDb logo, consisting of the letters "IMDb" in a bold, black, sans-serif font, centered within a yellow rounded rectangle.

IMDb

DATABASE

INITIALIZATION & DIRECTION

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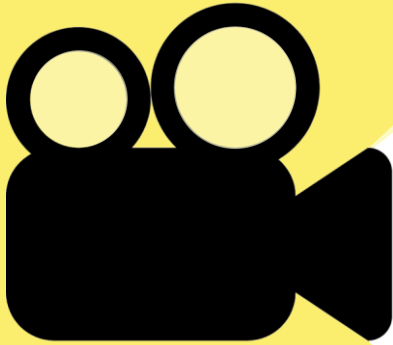


TABLE OF CONTENTS

Purpose	3
1. Data Definiton Language.....	4
2. Data Manipulation Language	8
3. Graphical User Interface.....	9

PURPOSE

The purpose of this file is to give a overview of the query files built for this database and a quick sample of the graphical user interface integrated with the database.

The database was built to help the online website *Internet Movie Database*, also known as IMBD, set up a database that will suit its future business ventures of:

- Producing movies in house
- Understanding the best decisions in terms of budget offering for movies produced in-house
- Supporting a multi-national platform that allows independent release schedules of IMDB produced properties

Database Initialization

Database Definition Language (DDL)

1. CREATE DATABASE

```
10  /*****
11  ****Create Database*****/
12  *****/
13  CREATE DATABASE [MovieIndustry];
14  USE [MovieIndustry];
15  GO
```

Location: DDL.sql file, Line 10 – Line 15

2. CREATE TABLE

```
17  /*****
18  ****Create Tables*****/
19  *****/
20
21  ---Create Country Table
22  CREATE TABLE [Country](
23      [CountryCode] INT NOT NULL,
24      [Continents] VARCHAR(30),
25      [CountryName] VARCHAR(30),
26      [NumberOfActiveUsers] INT
27      CONSTRAINT [prim_country] PRIMARY KEY (
28          [CountryCode] ASC
29      )
30  ) ON [PRIMARY]
31  GO
32
```

Location: DDL.sql file, Line 17 – Line 168

Database Initialization

Database Definition Language (DDL)

3. CREATE CONSTRAINTS

```
171 /*****  
172 ****Create Constraints*****/  
173 *****/  
174  
175 ----Company's FKs  
176 ALTER TABLE [Company] WITH CHECK ADD CONSTRAINT [for_comp] FOREIGN KEY([CountryCode])  
177 REFERENCES [Country]([CountryCode])  
178 GO  
179 ALTER TABLE [Company] CHECK CONSTRAINT [for_comp]  
180 GO  
181  
182  
183 ----Movie's FKs  
184 ALTER TABLE [Movie] WITH CHECK ADD CONSTRAINT [for_movie] FOREIGN KEY([CompanyID])  
185 REFERENCES [Company]([CompanyID])  
186 GO  
187 ALTER TABLE [Movie] CHECK CONSTRAINT [for_movie]  
188 GO
```

Location: DDL.sql file, Line 171 – Line 260

4. CREATE FUNCTION

```
263 /*****  
264 ****Create UFD*****/  
265 *****/  
266 -- compute the average gross of movies with a specific genre  
267 -- input: genre  
268 -- output: the average gross  
269 create function compute_avg_genre_gross(@genre varchar(50))  
270 returns float  
271 as  
272 begin  
273     declare @avg_gross float;  
274     select @avg_gross = avg(gross) from movie where @genre= movie.Genre;  
275     return @avg_gross;  
276 end  
277 /* test  
278 declare @avg_gross float;  
279 set @avg_gross = dbo.compute_avg_genre_gross('Comedy')  
280 select @avg_gross  
281 */  
282
```

Location: DDL.sql file, Line 263 – Line 282

Description: Created a function for average gross of movie

Database Initialization

Database Definition Language (DDL)

5. CREATE TRIGGERS

```
285  /*****
286  ****Create Triggers****
287  *****/
288  -- Two triggers: backup update/delete log
289
290  USE [MovieIndustry]
291  GO
292  -- create a table to store modifying history
293  CREATE TABLE ContractHistory(
294  [ContractHistoryID] [int] IDENTITY(1,1) NOT NULL,
295  [MemberID] [int] NOT NULL,
296  [CompanyID] [int] NOT NULL,
297  [DateStart] [date] NULL,
298  [DateEnd] [date] NULL,
299  [Action] [char](1) NULL,
300  [actionDate] [datetime] NULL,
301  PRIMARY KEY CLUSTERED
302  (
303  [ContractHistoryID] ASC
304  )WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS = ON, ALLOW_PAGE_LOCKS
305  ) ON [PRIMARY]
306  GO
```

Location: DDL.sql file, Line 285 – Line 366

Description: Created 2 triggers for backup update and delete logs

6. CREATE VIEWS

```
369  /*****
370  ****Create View****
371  *****/
372  --View 1: display production members and their career types
373
374  USE [MovieIndustry];
375  GO
376  CREATE VIEW [Production_Member_Type] AS
377  SELECT [MemberID] AS [Member Number],
378         CONCAT([FirstName], ' ', [LastName]) AS [Member Name],
379         [Gender] AS [Gender],
380         [DateOfBirth] AS [Date of Birth],
381         (CASE
382          WHEN MemberType = 1 THEN 'Director'
383          WHEN MemberType = 2 THEN 'Star'
384          WHEN MemberType = 3 THEN 'Screen Writer'
385          WHEN MemberType = 4 THEN 'Director/Star'
386          WHEN MemberType = 5 THEN 'Director/Screen Writer'
387          WHEN MemberType = 6 THEN 'Star/Screen Writer'
388          WHEN MemberType = 7 THEN 'Director/Star/Screen Writer'
389         END) [Member Type]
390  FROM ProductionMember
391  Go
```

Location: DDL.sql file, Line 369 – Line 409

Description: Created 2 views for Member-type translation and Movie ranking

7. CREATE STORED PROCEDURES

```
415 /*****
416 ***Create SP*****
417 *****/
418
419 -- SP 1: Predict the budget for making a movie
420 --     e.g., How much does it take to make a PG-13 comedy?
421 -- Inputs: (1) Movie Genre (optional), (2) Movie Rate (optional)
422 -- Output: budget
423 CREATE PROCEDURE predict_movie_budget_offer (
424     @Genre VARCHAR(50),
425     @Rate VARCHAR(50)
426 )
427 AS
428 BEGIN
429     SELECT AVG(m.Budget) "Average Budget"
430     FROM Movie as m
431     WHERE
432         ( @Genre is NULL
433         or @Genre = 'All Genre'
434         or @Genre = m.Genre )
435         and
436         (
437             @Rate is NULL
438             or @Rate = 'All Rates'
439             or @Rate = m.Rate
440         )
441 END
442
443
```

Location: DDL.sql file, Line 415 – Line 537

Description: Three Stored Procedures for the following purpose: 1) Budget estimation, 2) Movie search, 3) Gross update

8. CREATE INDEXES

```
541 /*****
542 Create indexes
543 1) PKs
544 2) fields often used in WHERE
545 3) fields often used in ORDER BY
546 *****/
547
548 -- Create unique indexes for PKs
549 Create Unique Index movieprimkeyindex
550 On Movie(MovieID);
```

Location: DDL.sql file, Line 541 – Line 592

Description: created unique indexes, and created secondary non-clustered indexes (line 583) from frequently used fields in order by and where clauses

Database Initialization

Database Manipulation Language (DML)

1. INSERT DATA

```
14 --- Insert table Country
15 INSERT INTO Country VALUES
16 ('1', 'North America', 'USA', '50000000');
17 INSERT INTO Country VALUES
18 ('2', 'Europe', 'UK', '35000000');
19 INSERT INTO Country VALUES
20 ('3', 'Australia', 'Australia', '50000000');
21 INSERT INTO Country VALUES
22 ('4', 'Europe', 'Italy', '35000000');
23 INSERT INTO Country VALUES
24 ('5', 'Europe', 'France', '35000000');
25 INSERT INTO Country VALUES
26 ('6', 'Europe', 'Sweden', '35000000');
27 INSERT INTO Country VALUES
28 ('7', 'Asia', 'Japan', '70000000');
29 INSERT INTO Country VALUES
30 ('8', 'Europe', 'Spain', '35000000');
31 INSERT INTO Country VALUES
32 ('9', 'Europe', 'Switzerland', '35000000');
33 INSERT INTO Country VALUES
34 ('10', 'North America', 'Canada', '50000000');
```

Location: DML.sql file, entire file

Database Initialization

Graphical User Interface (GUI)

Click [HERE](#) or the sample image below to access the GUI

tableau public					
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Movie Searching Engine

Movie Name

Movie option

Country

Company

Genre

Rate

Year

Year Range

Gross Summery

Movie Budget Prediction

Year of Release	Movie	Genre	Rate	Country	Company
1986	Aliens	Action	R	USA	Twentieth Century Fox Film Corporation
	Stand by Me	Adventure	R	USA	Columbia Pictures Corporation
	Top Gun	Action	PG	USA	Paramount Pictures
1987	Platoon	Drama	R	UK	Hemdale
1991	Close My Eyes	Drama	R	USA	Paramount Pictures
2007	The Messengers	Horror	PG-13	USA	Columbia Pictures Corporation
2015	Paper Towns	Drama	PG-13	USA	Walt Disney Pictures
2016	Green Room	Crime	R	USA	Walt Disney Pictures
	London Has Fallen	Action	R	USA	De Laurentiis Entertainment Group (DEG)
	Pride and Prejudice and Zombies	Action	PG-13	USA	Walt Disney Pictures

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Contents

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Random article

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Interaction

Help

About Wikipedia

Community portal

Recent changes

Contact page

Tools

Not logged in

Talk

Contributions

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Log in

Article

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This article is about the 1986 sequel. For the original film, see *Alien (film)*.

Aliens



9