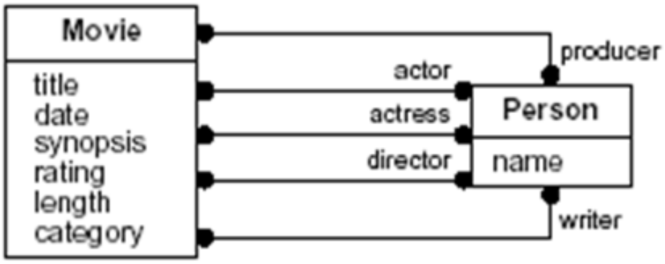
Oakland University
CSI-3450

Fall - 2025

Course Project
Grade: 150 Points

- □ Final Project Deliverables Due Date: December 10th.
- □ Please write your name and student ID at the top of the word document
- □ Upload the document to Moodle.

Consider an object class model for movie information that includes the following: actor, actress, category, date, director, length, movie, producer, rating, synopsis, title, and writer. Assume the model is constructed below:



Implement the model in a RDBMS such as Oracle in the following way:

- Use the recommended mappings and existence-based identity:
- Assign domain to all attributes.
- Add SQL DDL code to create tables. Add more SQL code to create constraints, sequences, and indexes. Create foreign key constraints.
- Execute the SQL code in the previous step.
- Insert at least two records for each table. For some tables, you need to insert more records to make their associations meaningful.
- For each table, create at least two queries to access its record.
- Develop GUI for inserting facts into the database, retrieving facts, updating, and deleting facts.

Consider designing a Movie J2EE Web based system. The system may require implementing any of the following set of technologies:

1) JSP
2) JavaServlet
3) JDBC
4) SQL as a programming database
5) XML
6) Tomcat Web Server
7) CSS
8) HTML
9) Pure Java Skills
10) And etc…

The system also requires building an Oracle database which keeps information about movie, producer, actor, actress, person, writer and director.
Typical information kept in the database includes:

- movie**:** movieID, title, releaseDate, synopsis, rating, length. category.
- producer**:** producerID, position.
- actor**:** actorID, role.
- actress**:** actressID, role
- person**:** personID, lastName, firstName, pay.
- Writer: writerID, contribution.
- Director: director ID, position

Design the GUI system keeping in mind that users of this system may ask some of the following questions for a variety of reasons.

1) List all the movies produced by a given producer.
2) List all the movies that were directed by a given director.
3) Find the most expensive movie a produce ever cost.
4) Find all the movies that were produced in the same year.
5) Find an actress who does not join a movie produced by a producer.
6) Find the highest amount of money earned by an actress in a movie.
7) Find actors and actresses who joined a movie.
8) List all the movies below a price directed by a director.
9) List producers who produced all the most expensive movies in a given year.
10) Find movies that people are more watching for an actor or an actress.

You also need to consider some of the following transactions:

1) Adding an actor into the database
2) Adding a new movie to the database
3) Moving a movie from screened list in theatres to coming soon list
4) Making a movie starts in two theatres at the same time.

The implementation should preserve all ICs
Implement all tables, constraints and queries using SQL.
Design a user-friendly interface for populating the tables, and execute the following pre-fabricated queries.

What you should do: The deliverables

1) Submit final documentation on the due date.
2) Schedule a demo time before the due date.

Important Notes

1) For all phases, you need to submit only one report per group.
2) Write the identification for each member of the group on the cover page.
3) You are not allowed to submit handwritten reports.
4) You are allowed to work in groups of 4 or 5.
5) You should submit one final report for your group.
6) It will include implementation code, and sample executions of queries and transactions. Your project may not be a list of Oracle scripts which implement the queries and transactions. It should be similar to a commercial application with menus and interfaces.

Project Grading Scheme

1) Correct database design -- 10%.
2) Appropriate interface/forms design -- 20%.
3) Satisfactory implementation of queries -- 30%.
4) Satisfactory transaction implementation -- 20%.

5) Demonstration -- 10%.
6) Individual contributions -- 10%.
7) Project report -- pass/fail. Must pass this component.