



PROG1121J Database Programming Project

Project: Database Driven Application

Using a topic of your choosing and instructor approval, create a data-driven, Windows Forms desktop application that will create, manipulate, search and browse records within a SQL Server database. The database design will contain three tables. Two tables will be related through a many-to-many relationship.

The minimum application requirements will contain the following forms

- An MDI form container
 - Complete with status strip updated by child forms
 - Menu for launching all child forms
 - Tool strip for common application functions
- About form
 - List all Application Properties
 - Open from the MDI Toolstrip and Menu
- Splash Screen
 - Displayed at launch
 - Application name
 - Current Version number
- Login form
 - Create a Login database table with pre-populated login accounts. A user cannot access the application unless successfully logged in.
 - Fields
 - User
 - Password
- Maintenance form for each entity in the database. This form must accomplish the following
 - Present all database entity attributes with an appropriate Windows form control
 - Allow navigation forward, back, first and last records within the database table
 - Buttons for Create, Update and Delete, with enable property managed according to the current state of the form
 - Child form will update the MDI status label according to the current action (See attached screenshots for examples)
 - Examples include but not limited to
 - Adding...
 - 1 of 50 records
 - Ready...
- Maintenance form for the many-to-many relationship
- Two Browse forms
 - Allow browsing of each entity and show the related records within a DataGridView
 - Update mdi status strip label (See attached screenshots)
- Create two business rules that are enforced within the system (Requires instructor approval)



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Submission Requirements

- Private GitHub Repository (Instructor added as collaborator) with project source code and artifacts
- Database creation script added to GitHub project repository
- Database seed data added to GitHub project repository
 - Clean test data included for all tables
- OneClick Deployment for installation
- Product Presentation and Demonstration
 - Introduce the product with a short PowerPoint presentation
 - Include business rules
 - Product walkthrough demonstrating all features (Not a code review)
 - Launched from OneClick installation

Deliverables

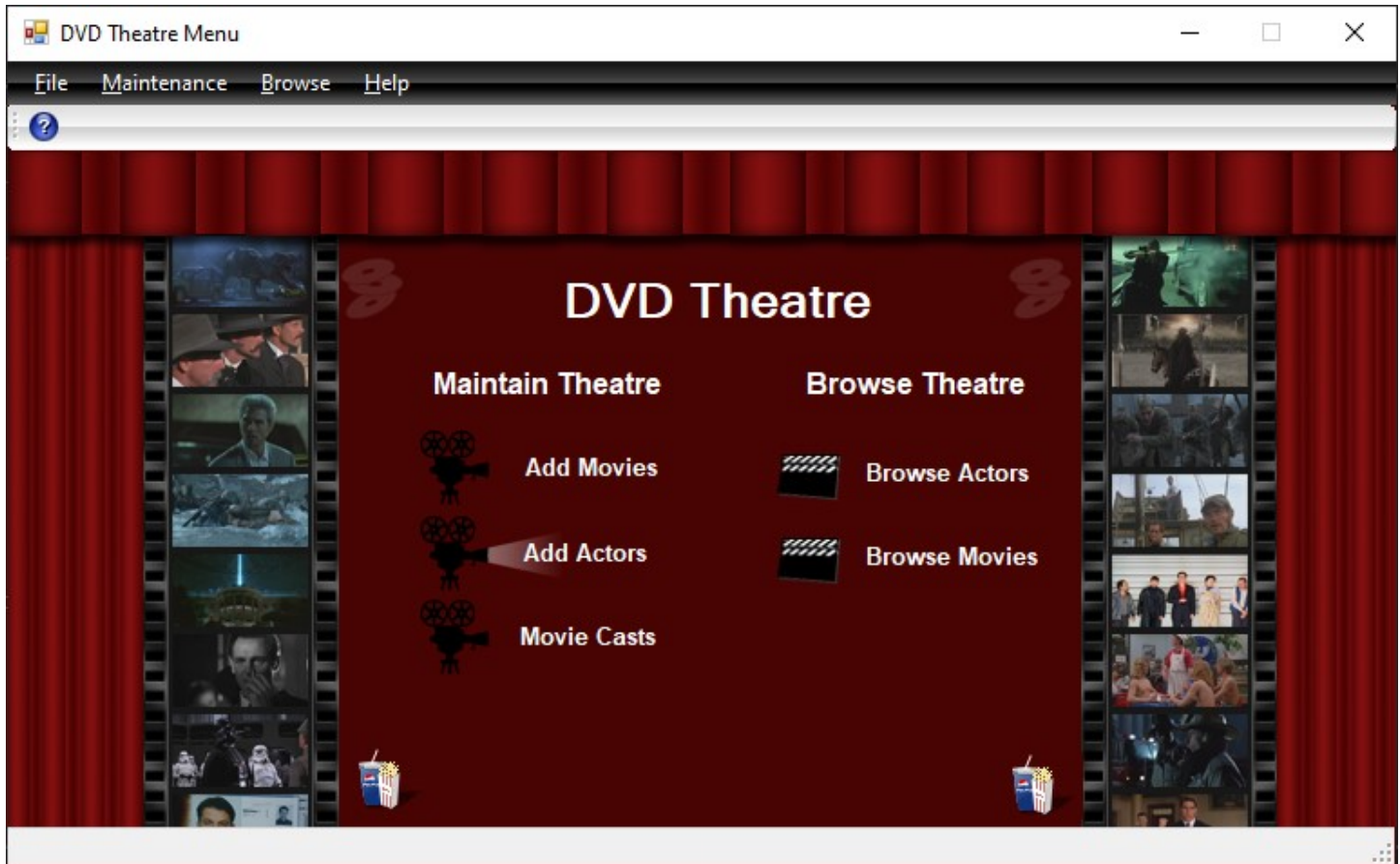
- Project GitHub repository
- Project topic and business rules
 - **Microsoft Word** document memo format checked into GitHub in a folder called **Documentation**
- ER Diagram version 1
 - Checked into GitHub in the **Documentation** folder. Ensure the ERD is clearly versioned in its naming (Example **CollegeCodeDirectoryERD_V1.drawio**, **CollegeCodeDirectoryERD_V1.pdf**). Use design software of your choosing. Ensure the repository has your native format file and a pdf version.
 - Must include Login table in ERD
- ER Diagram version 2
 - Revised database design based on instructor feedback, checked into GitHub in the **Documentation** folder. Ensure the ERD is clearly versioned in its naming (Example **CollegeCodeDirectoryERD_V2.drawio**, **CollegeCodeDirectoryERD_V2.pdf**).
- Mid Project Progress Review
- Final Code Check in
- Presentation



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Examples

MDI Container





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Entity Maintenance Form

Add Movies ✕

Movies

Movie Name:

Genre:

Media Format

☐ DVD

☐ HD DVD

☐ VHS

Screen Ratio

☒ 16:9 Widescreen

☐ 4:3 Full Screen

Disc Details

Boxset: ☐

On loan: ☐

☒ Movie

Number of Discs:

☐ TV

Purchase price:

Purchase date:

Movie Details

Year released:

Production budget:

MPAA rating:

Synopsis:

1 of 3 records.



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Add Movies ✕

Movies

Movie Name:

Genre:

Media Format

☐ DVD

☐ HD DVD

☐ VHS

Screen Ratio

☐ 16:9 Widescreen

☐ 4:3 Full Screen

Disc Details

Boxset: ☐

On loan: ☐

☐ Movie

☐ TV

Number of Discs:

Purchase price:

Purchase date: ,

Movie Details

Year released:

Production budget:

MPAA rating:

Synopsis:

Adding entry.....



PROG1121J Database Programming Project

Add Movies ✕

Movies

Movie Name:

Genre:

Media Format

☒ DVD

☐ HD DVD

☐ VHS

Screen Ratio

☒ 16:9 Widescreen

☐ 4:3 Full Screen

Disc Details

Boxset: ☒ On loan: ☐

☐ Movie

Number of Discs: ☐ TV

Purchase price:

Purchase date:

Movie Details

Year released:

Production budget:

MPAA rating:

Synopsis:

⏮ ⏪ ⏩ ⏭

Adding entry..... 3 of 3 records.



PROG1121J Database Programming Project

Add Movies






Movies

Movie Name:

Genre:

Media Format

☐ DVD 
☐ HD DVD 
☐ VHS 

Screen Ratio

☐ 16:9 Widescreen
☐ 4:3 Full Screen

Disc Details

Boxset: ☒ On loan: ☐

☐ Movie
☐ TV

Number of Discs:

Purchase price:

Purchase date:


Movie Details

Year released:

Production budget:

MPAA rating:

Synopsis:



Loading..... 3 of 3 records.



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Browse Forms

Browse Actors

Choose an Actor or Actress

Name:

| Movie Title | CharacterName | ActorRoll | Award |
|------------------------|---------------|------------|-------|
| Bourne Identity (The) | Jason Bourne | Lead Actor | |
| Bourne Supremacy (The) | Jason Bourne | Lead Actor | |

Ready..... Current Records= 2

Browse Movies

Choose a Movie

Name:

Movie Title: Bourne Identity (The)
Genre: Action
Media Format: DVD
Screen Ratio: 16:9
Film Budget: 15000000.0000
MPAA: PG-13

| Actors | CharacterName | ActorRoll | Award |
|------------|---------------|------------------|-------|
| Brian Cox | Ward Abbott | Supporting Actor | |
| Matt Damon | Jason Bourne | Lead Actor | |

Ready..... Current Records= 1 with 2 cast members