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

Deliverable Schedule

- Project GitHub repository
    - May 22st 11:59pm Instructor added as collaborator
- Project topic and business rules
    - May 22st 11:59pm Word document memo format checked into GitHub in a folder called **Artifacts**
- ER Diagram version 1
    - May 25 11:59pm checked into GitHub in the **Artifacts** 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
    - May 27th 11:59pm revised database design based on instructor feedback, checked into GitHub in the **Artifacts** folder. Ensure the ERD is clearly versioned in its naming (Example **CollegeCodeDirectoryERD_V2.drawio**, **CollegeCodeDirectoryERD_V2.pdf**).
- Mid Project Check In and Progress Review
    - June 3rd instructor meeting to review current progress of the project
- Final Code Check in
    - June 7th 11:59pm
- Presentation
    - Week of June 8th - June 12th

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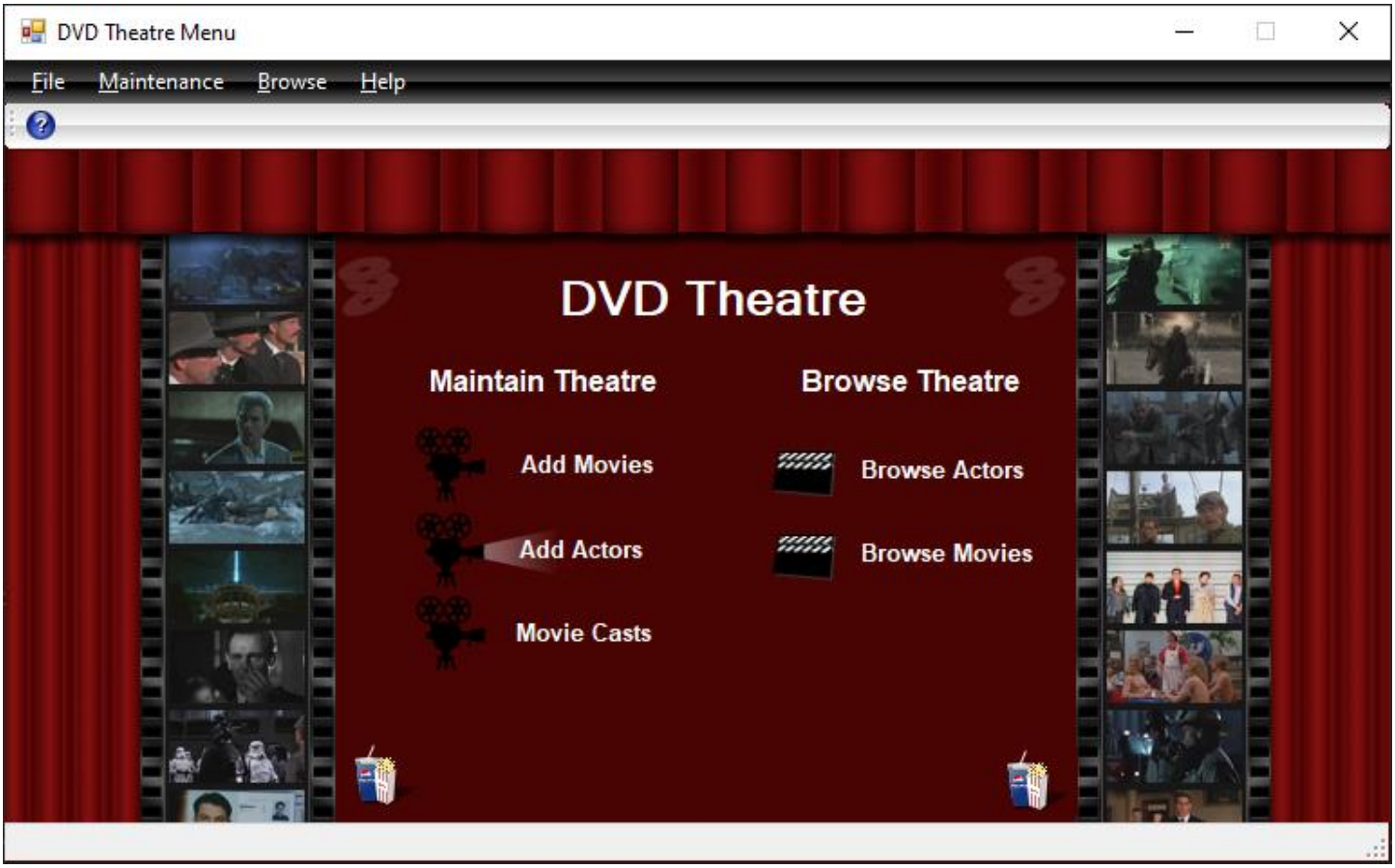
Examples

MDI Container



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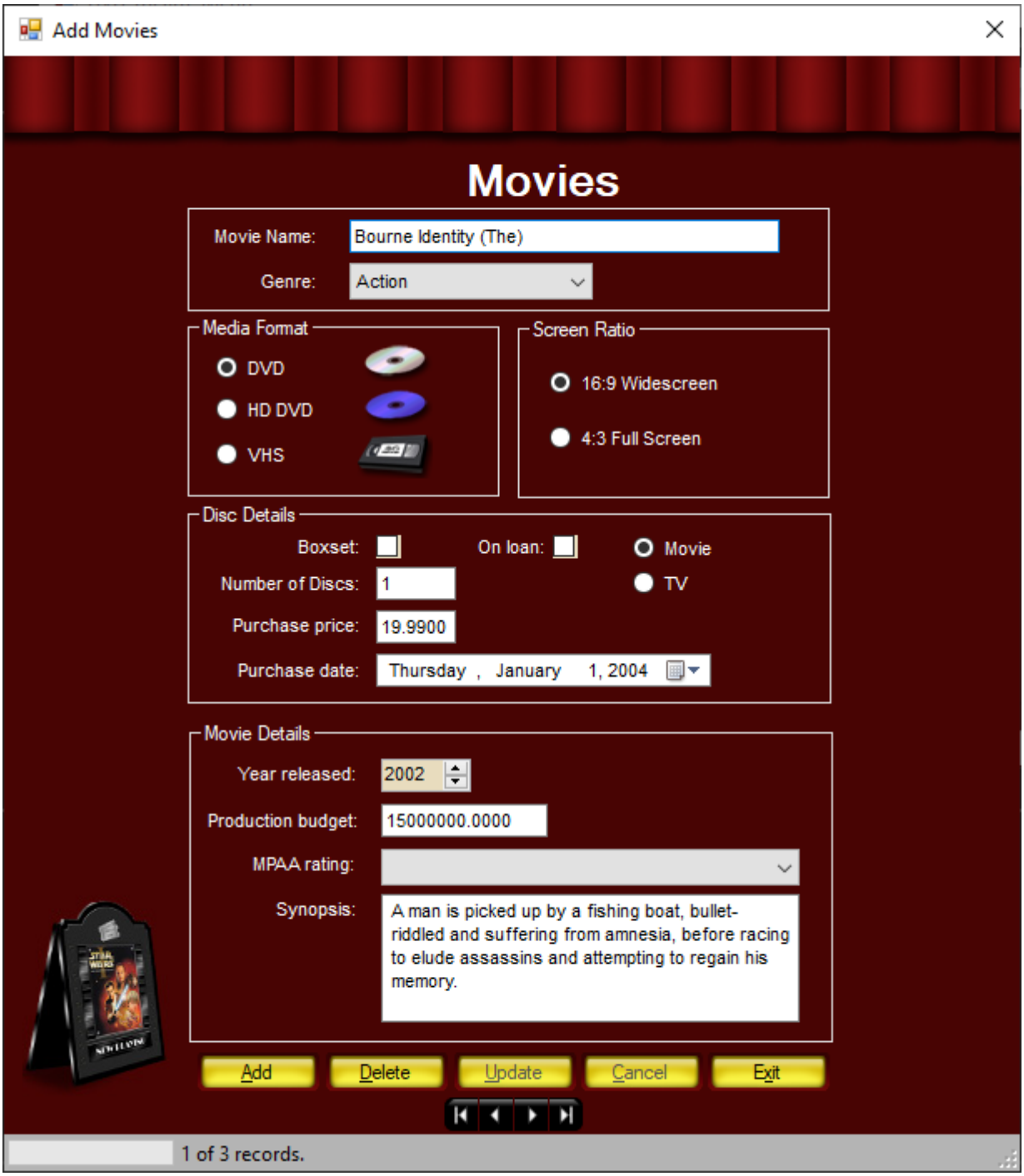
Entity Maintenance Form



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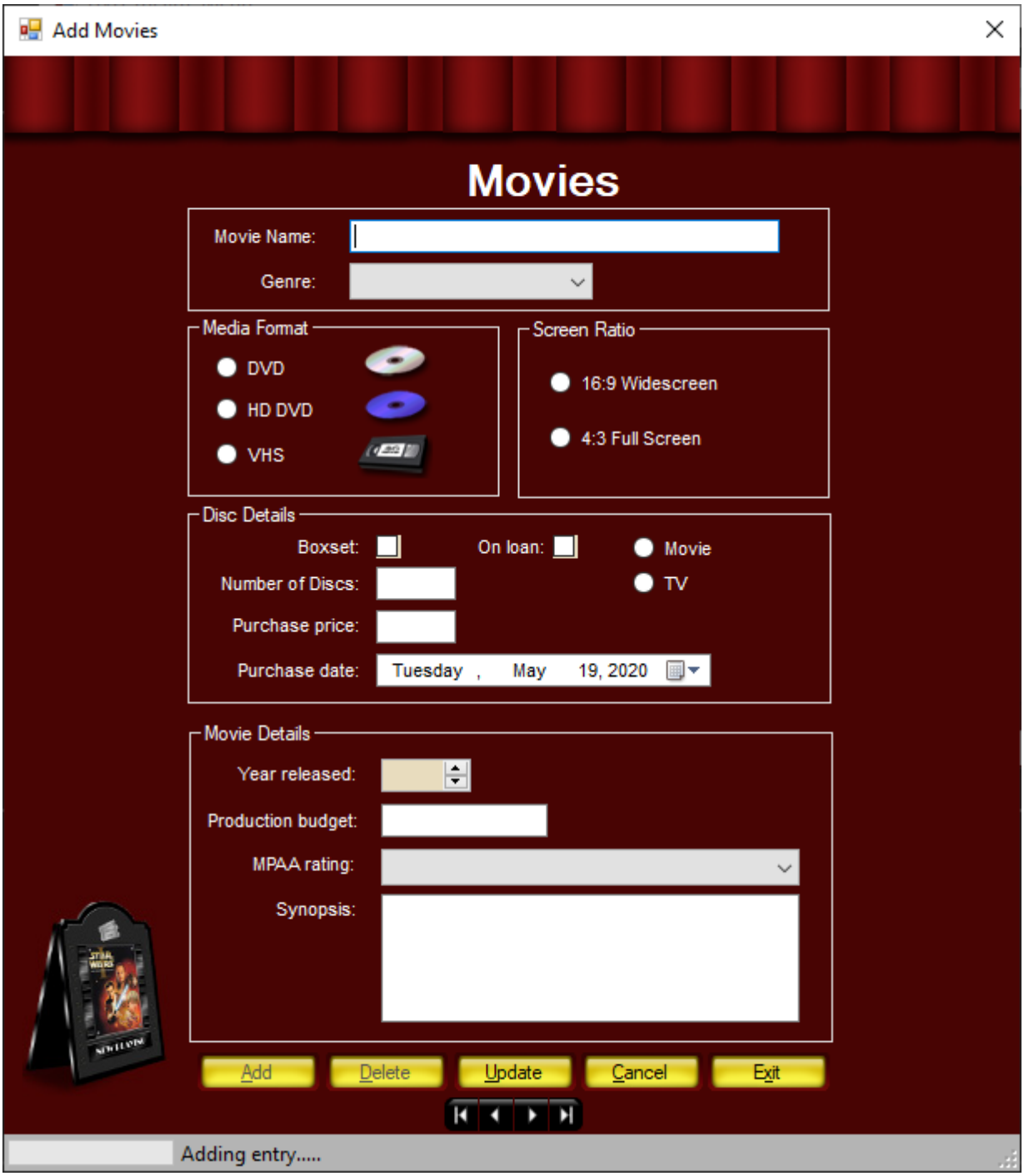

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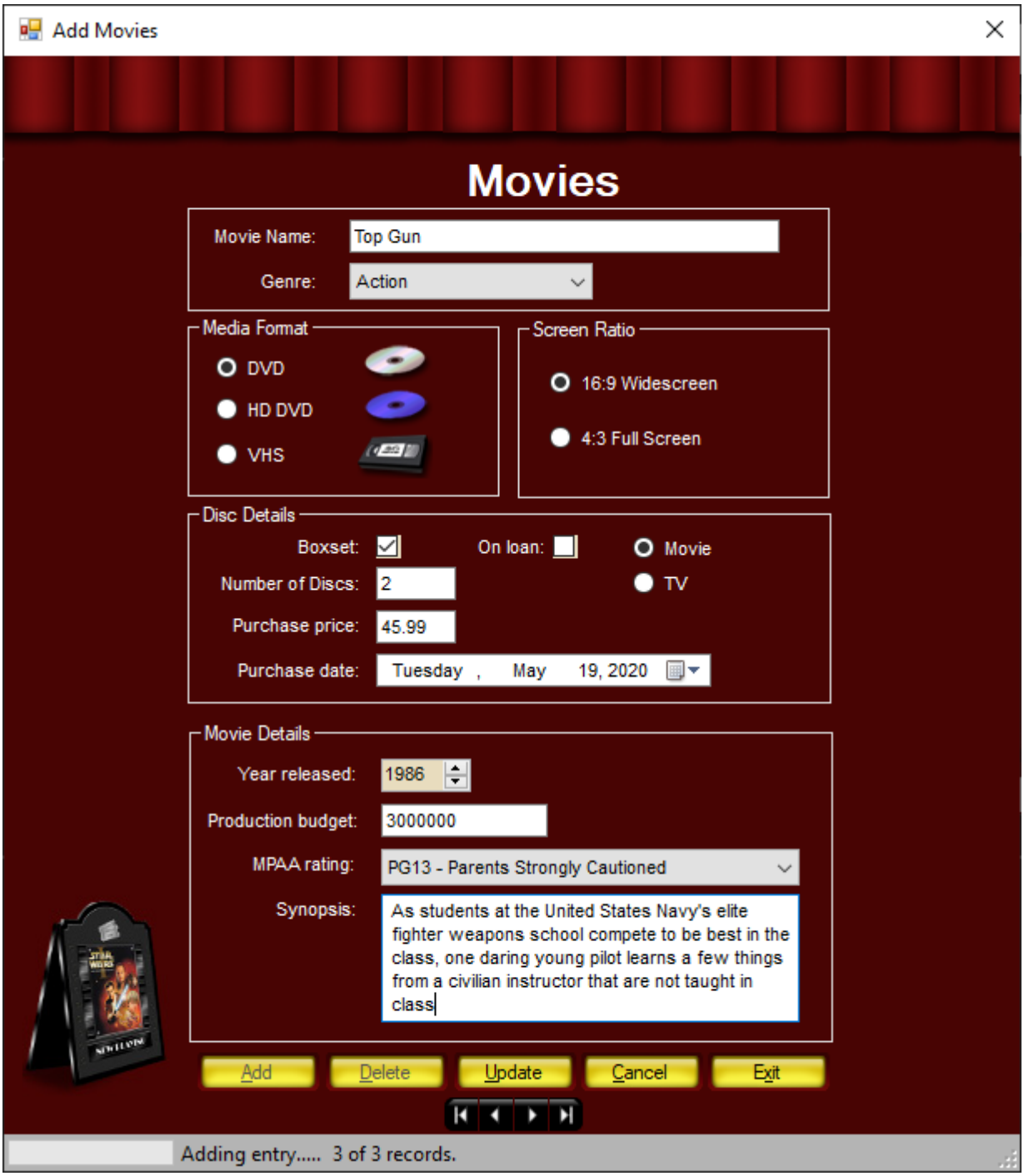

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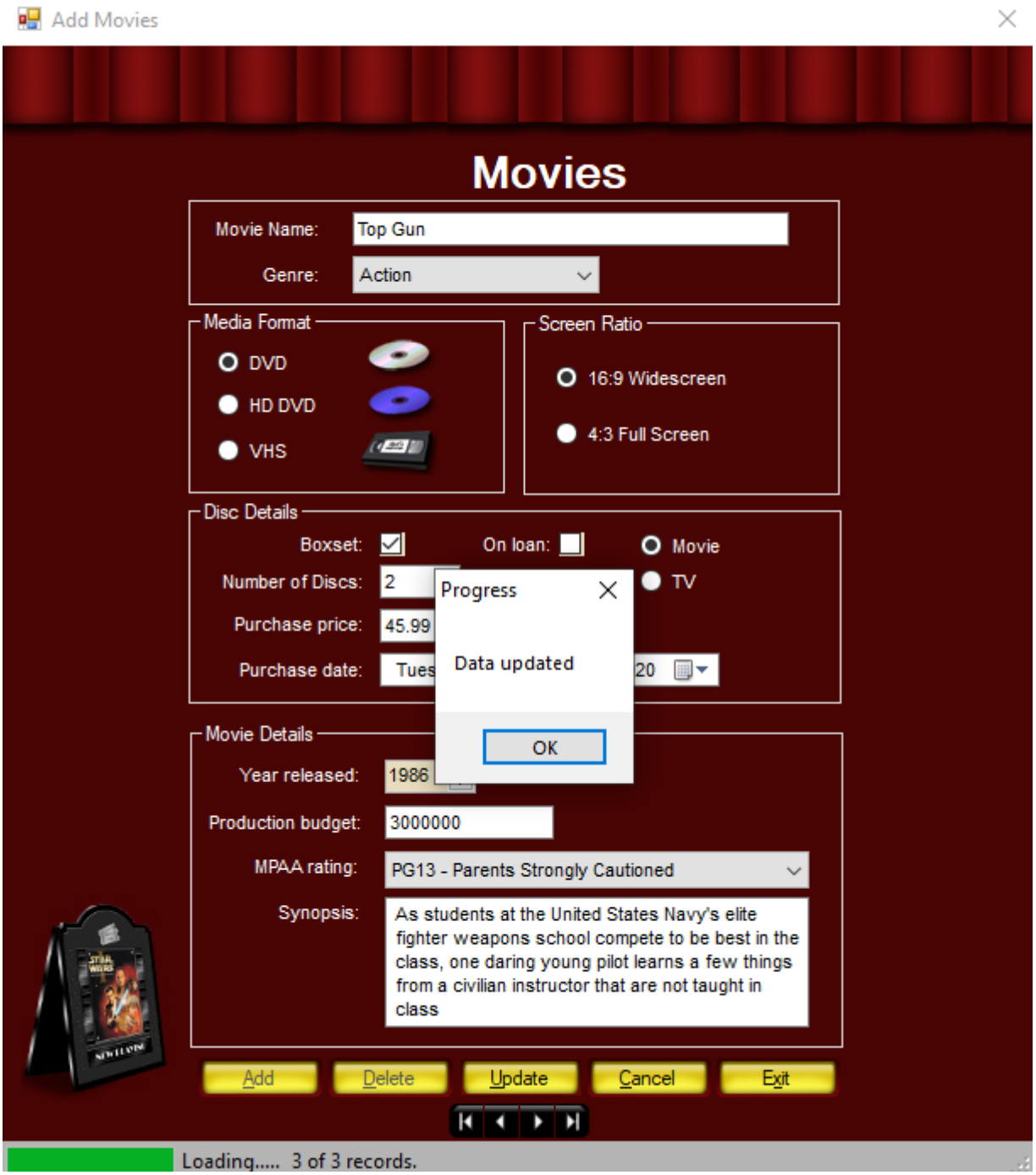

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Browse Forms