Code Review Aditya Patel

Hey Ashley, I've had a look at your program, and I have some feedback that might be helpful.

1. **Play Button:** I encountered a ConstraintException when trying to use the Play button. It seems like there might be an issue with how the data is being saved, possibly violating a non-null, unique, or foreign key constraint. While I did temporarily disable the constraints to see the rest of the program, this isn't a long-term solution, of course. It would be great to understand how the data is being handled in that section.

If you need the code and if this code might help you figure out the issue, I have written it down after the review, and yes, nothing else is wrong with the code.

1. **Show Details:** The Show Details layout could be improved. Centering the form and grouping the filter/sort controls on one side, with the buttons on the other, would make it much cleaner. Also, the buttons could probably be a bit smaller.
2. **Filter Median and Search:** The Filter Median and Search (especially the state search) don't seem to be working as expected. I tried a few different states in the search, but no results were returned. It would be useful to understand how these features are implemented.

Overall, the program looks promising and the Code too! Addressing these points would definitely enhance the user experience.

### Short-Term Code Solution

try

{

// Temporarily disable constraints

this.statelistDataSet.EnforceConstraints = false;

// Fill the data table

this.stateTableTableAdapter.Fill(this.statelistDataSet.StateTable);

// Re-enable constraints

this.statelistDataSet.EnforceConstraints = true;

}

catch (ConstraintException ex)

{

// Log detailed information about the constraint violation

foreach (DataTable table in this.statelistDataSet.Tables)

{

foreach (DataRow row in table.GetErrors())

{

foreach (DataColumn col in row.GetColumnsInError())

{

Console.WriteLine($"Error in column '{col.ColumnName}': {row.GetColumnError(col)}");

}

}

}

// Show a message box with the exception message

MessageBox.Show("Constraint violation: " + ex.Message);

}

catch (Exception ex)

{

// Handle other exceptions

MessageBox.Show("An error occurred: " + ex.Message);

}

}