

CSE 382
Exercise - MVVM

Use the Chapter 18 projects as your starting points. Your video submission should demonstrate your working projects. Verbally answer the questions (bold items below). This video might be several minutes long to allow you time to demonstrate all of the projects and answer the questions.

- **MvvmClock**
 - For each of the following, describe why the application fails for the following changes in **DateTimeViewModel**. Do each change independently of the others. On your video, simply answer the questions; do not make the changes/recompile during the video.
 - In the **OnTimerTick** method, replace
 - **DateTime = DateTime.Now;** with
 - **dateTime = DateTime.Now;**
 - In the **DateTime** property, comment out:
 - **PropertyChanged?.Invoke(this, new PropertyChangedEventArgs("DateTime"));**
 - In the **DateTime** property, change **DateTime** to **datetime**:
 - **PropertyChanged?.Invoke(this, new PropertyChangedEventArgs("datetime"));**
- **SimpleMultiplier**
 - Repeat the multiplication problem using steppers instead of sliders. And, performs addition instead of multiplication. Add the new controls below the existing ones.
 - The steppers will take the range [0, 100]
 - Labels will reflect the values of the steppers and the summation
 - Define a new view model, which will closely resemble the **SimpleMultiplierViewModel**. In the XAML, make sure that you set the **BindingContext** appropriately.
- **HslSliders**
 - No changes
- **PowersOfThree**
 - No changes
- **AddingMachine**
 - Add factorial functionality
 - Add a "!" button by shrinking the + button.
 - The ! button should compute the factorial of the number shown in the display.
 - It should be activated/enabled only when the displayed number is a positive integer.