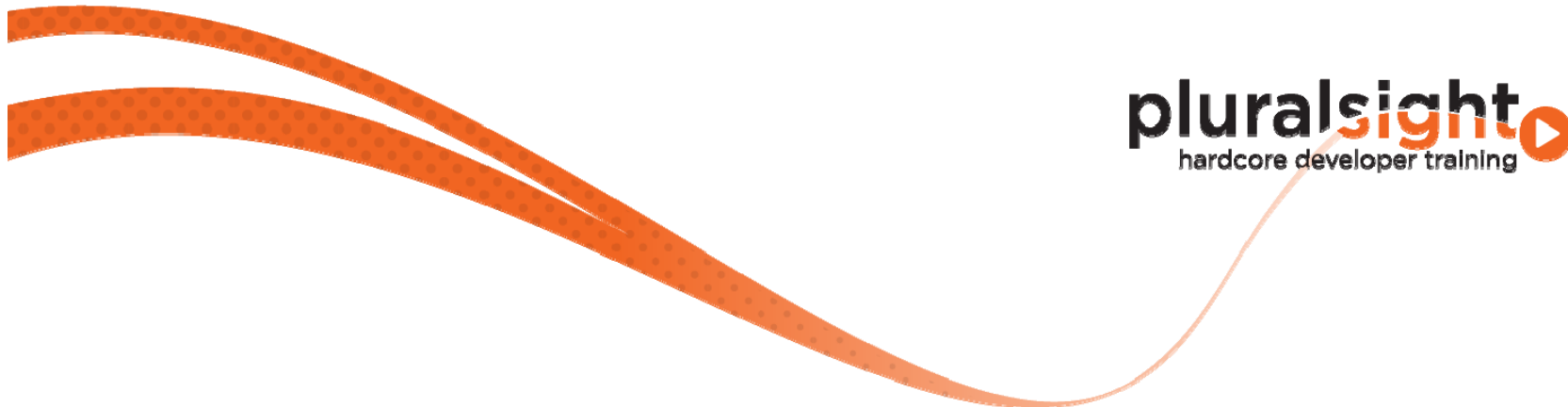


# **Building End-to-End Multi-Client Service Oriented Applications – *Angular Edition***

Module 13

The Car Rental Desktop – Part 1

*Setting up the WPF application*



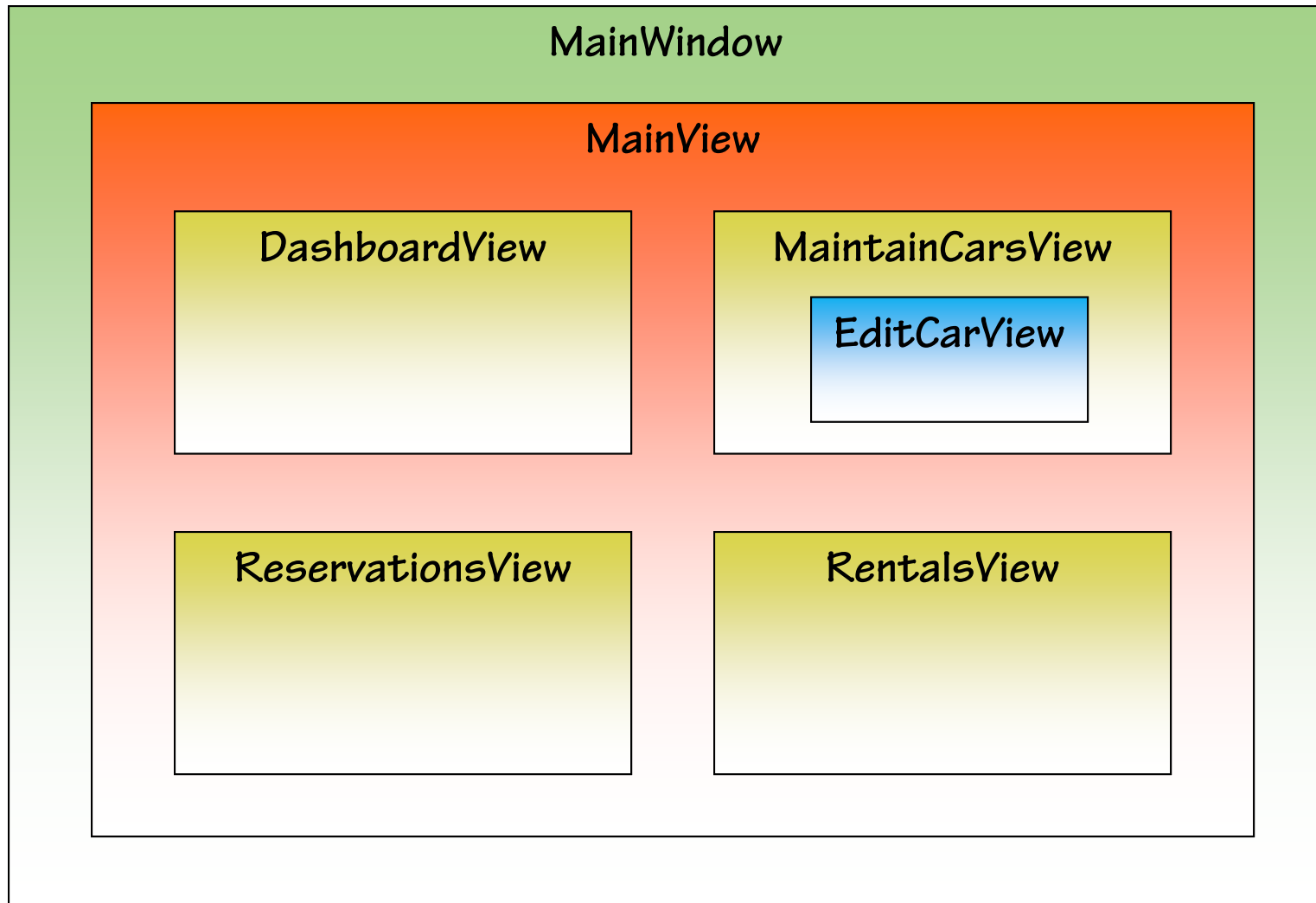
# Highlights

- **Application infrastructure**
  - View-to-ViewModel structure
  - App.xaml
  - Config
  - Core base classes
  - Themes & controls
- **Overview of the app's views**
- **Problems we have to solve**

# Application Infrastructure

- **Every view will have corresponding viewmodel**
  - Logical representation of view
  - Contains all state and behavior
- **Code-behind used to receive events from viewmodel**
  - Showing message boxes
  - Opening other windows (not done in this app)
- **View-switching uses content-control & data-templates**
  - Child viewmodels contain within parent
- **MEF serves up most viewmodels (not all)**
- **MahApps Metro styling used**

# View Structure



# Problems to Solve

- **Deterministic ViewModel initialization**
  - Refresh data each time view comes into view
  - Problem is that viewmodel is instantiated once (by parent)
    - While view is re-initialized each time it shows
  - ViewModel constructor cannot be used deterministically [to load data]
- **Do not want to inject service proxies into ViewModel**
  - Will remain open
  - If closed, ViewModel is already loaded and will not “re-inject”
- **ViewModel-to-View events MUST be unwired if view goes out of scope**
  - Remember, next time in view, we get new instance
  - ViewModel still the same, and events still point to view no longer around
    - Will never be disposed
    - Age-old problem

**End of Module**