

Building End-to-End Multi-Client Service Oriented Applications

Module 13

The Car Rental Desktop – Part 1

Setting up the WPF application



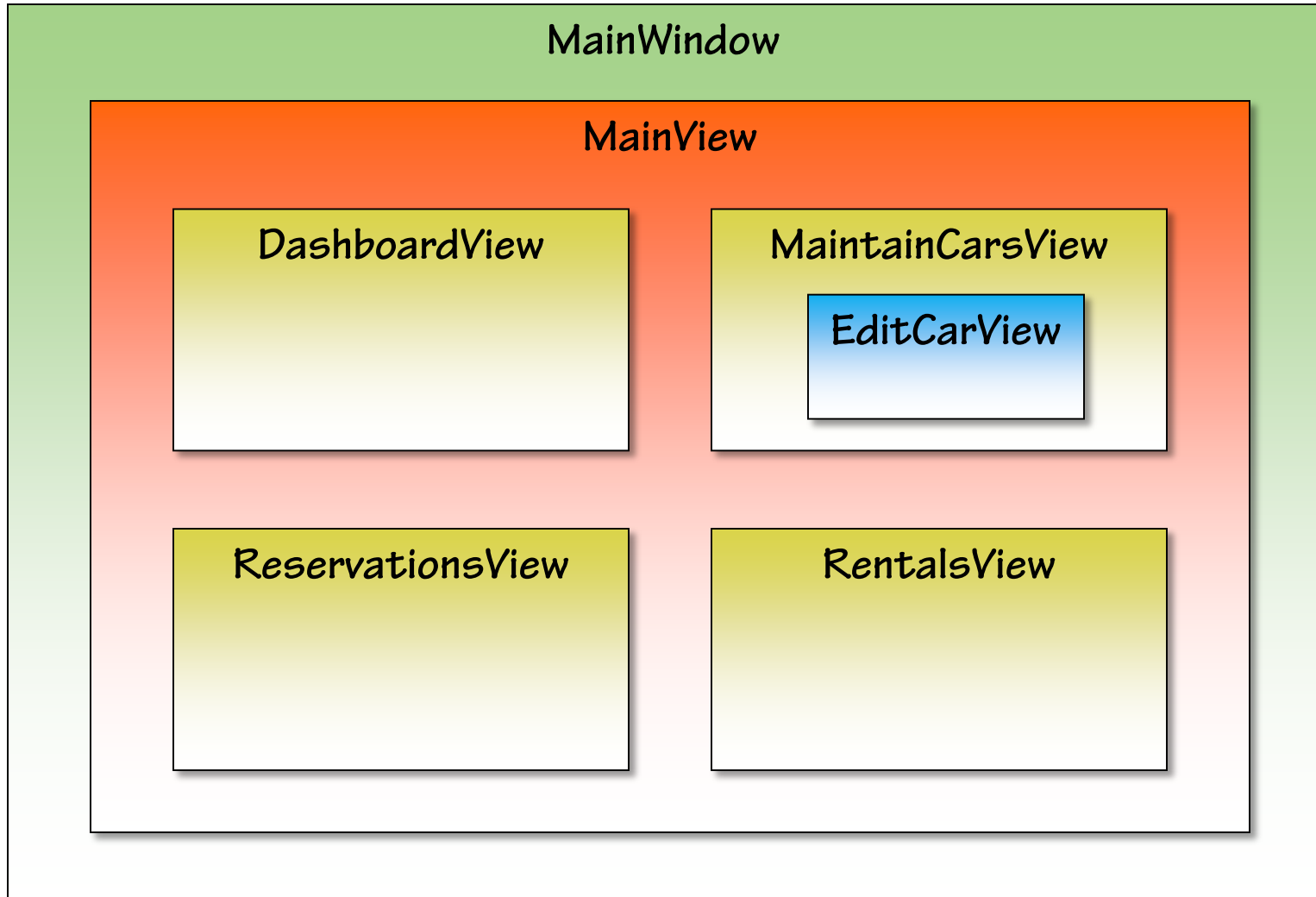
Highlights

- **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