PC-Base 使用者介面開發實務

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洽富科技有限公司

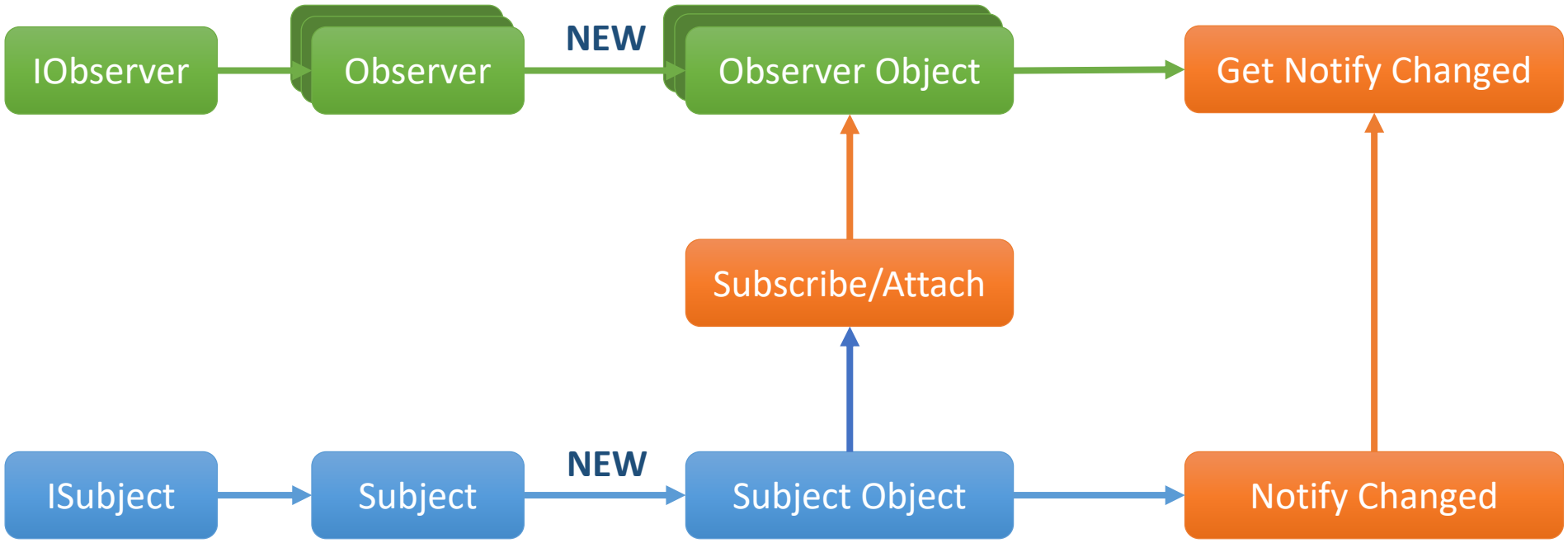
鍾湫浤

Observer Pattern(觀察者設計模式) (1/3)

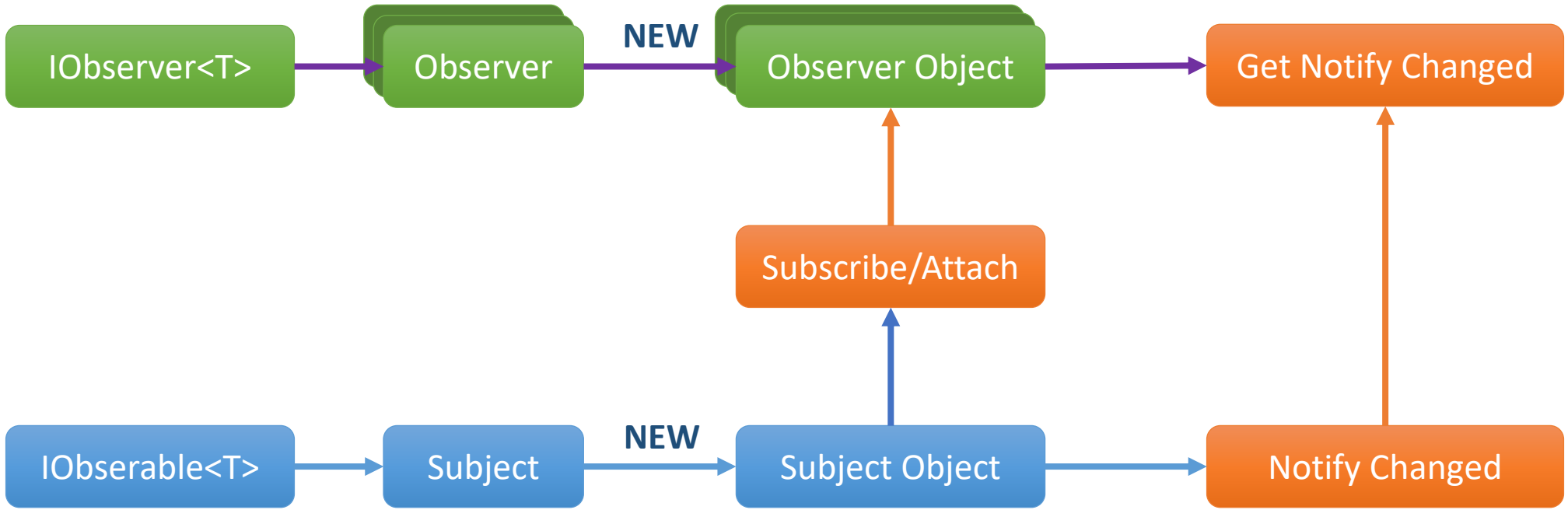
- Observer pattern is a behavioral pattern that **establishes a one-to-many dependency between objects**, where the state change of **one object (subject) triggers the automatic update** of all its **dependents (observers)**.

- Reference Link:
  - 觀察者設計模式 | Microsoft Learn

Observer Pattern(觀察者設計模式) (2/3)



Observer Pattern(觀察者設計模式) (3/3)



Delegate, Event, And Eventhandler

- **Events** provide an encapsulated and standardized way of notifying subscribers without exposing the underlying implementation details. They are useful when you want to allow multiple subscribers to be notified of an event and **provide a clear separation between the event source and its consumers**.

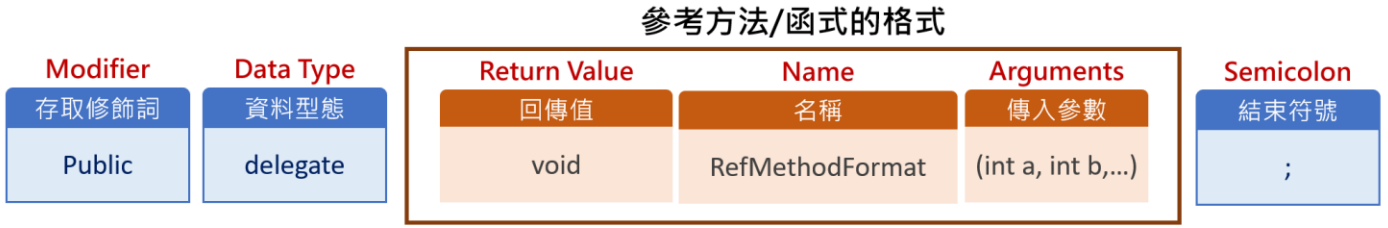
- **Event handlers**, on the other hand, are methods or delegates that handle the event. They can be custom methods defined in your code that perform specific actions in response to the event being raised. **Event handlers are useful when you have specific logic or behavior to execute when the event occurs**.

應用委派四步驟

- Step1: **宣告**委派
- Step2: **實例被參考**的類別與方法
- Step3: **建立**委派的**關係**
- Step4: **呼叫委派**

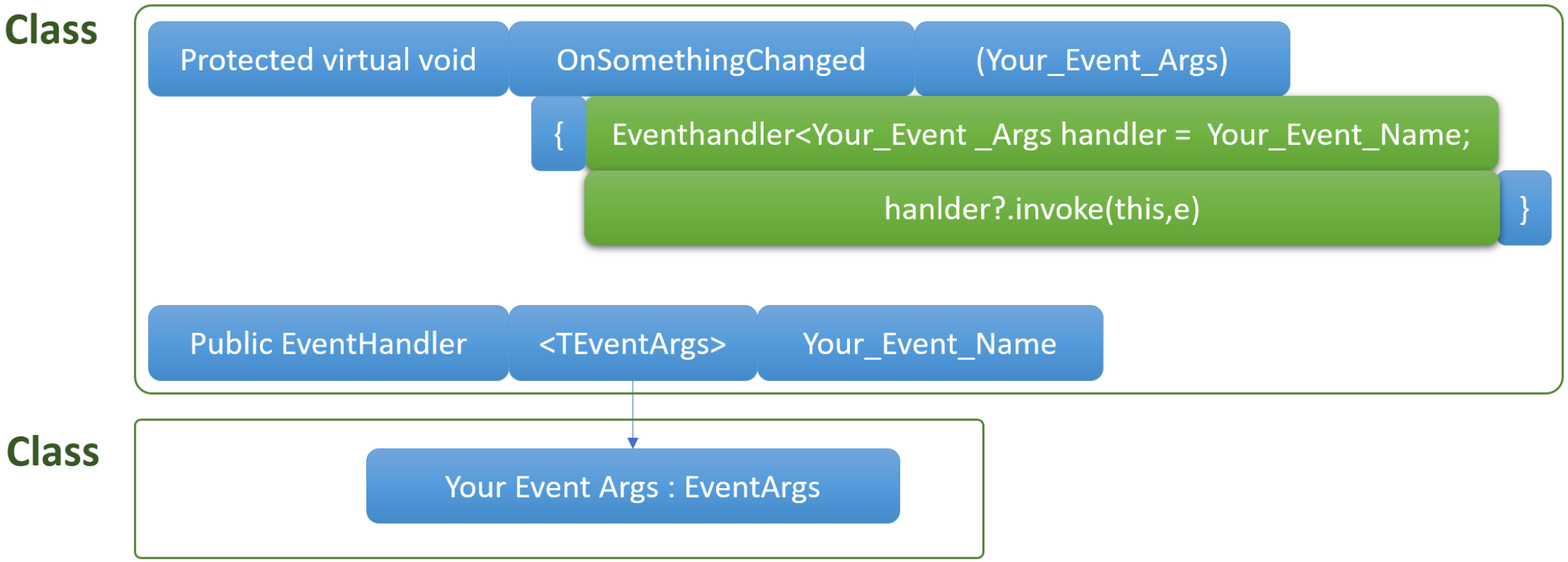
Delegates (委派)

- A reference to a function/method
- 宣告方式:

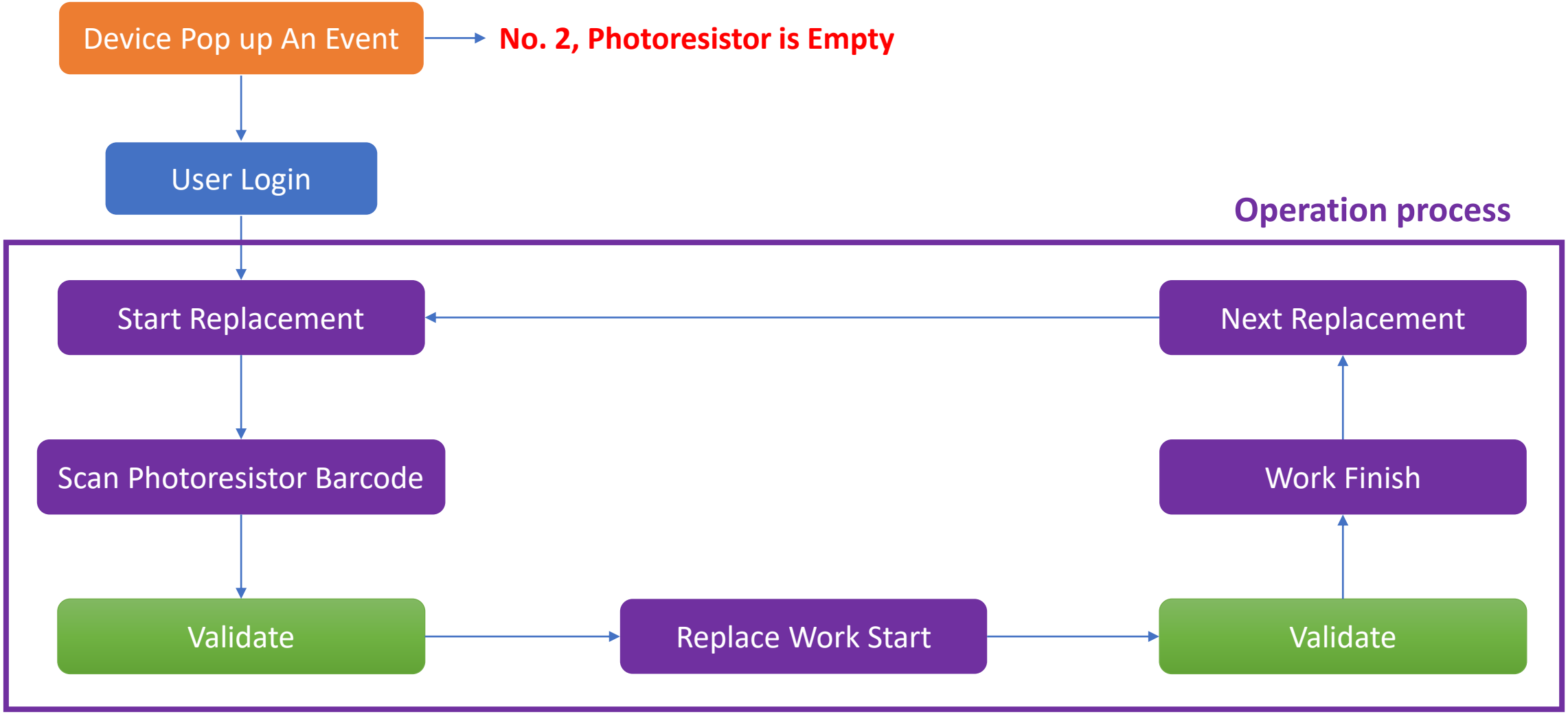


Delegate, Event, And Eventhandler

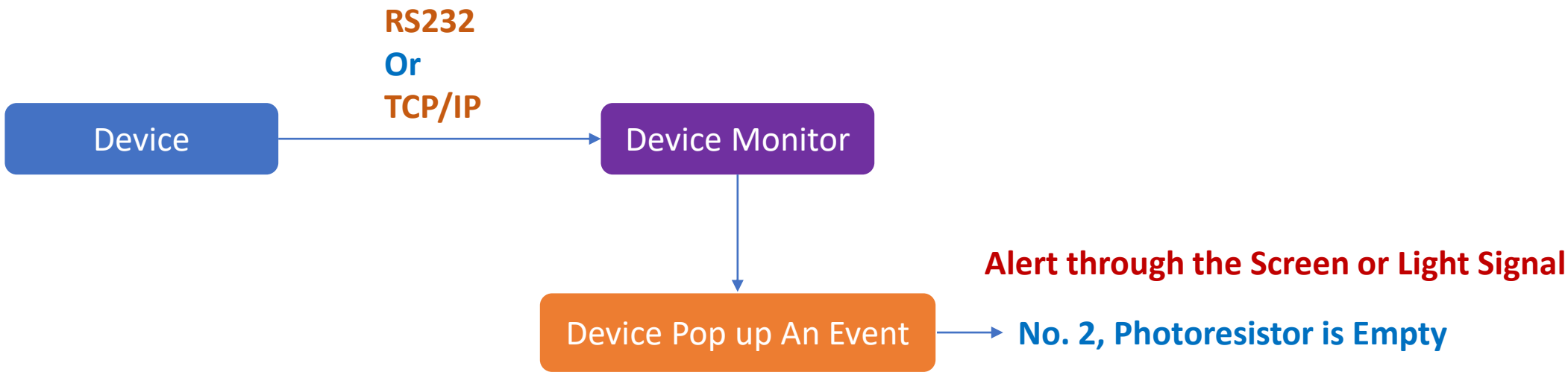
the **event**, **EventHandler**, **Action**, and **Func** are all built-in constructs that are **based on delegates**.



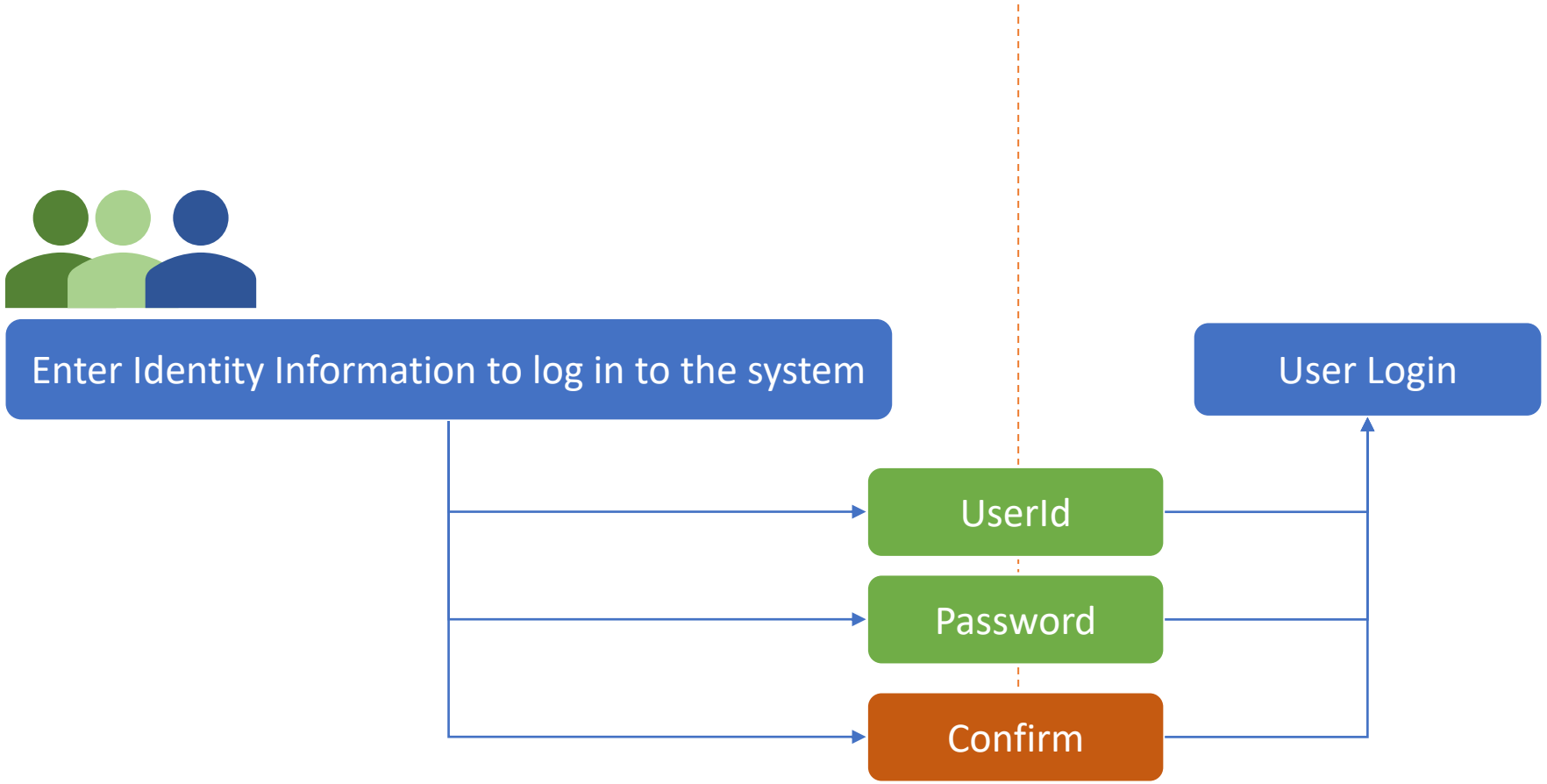
Business Logic/Domain Logic (1/4)



Business Logic/Domain Logic (2/4)

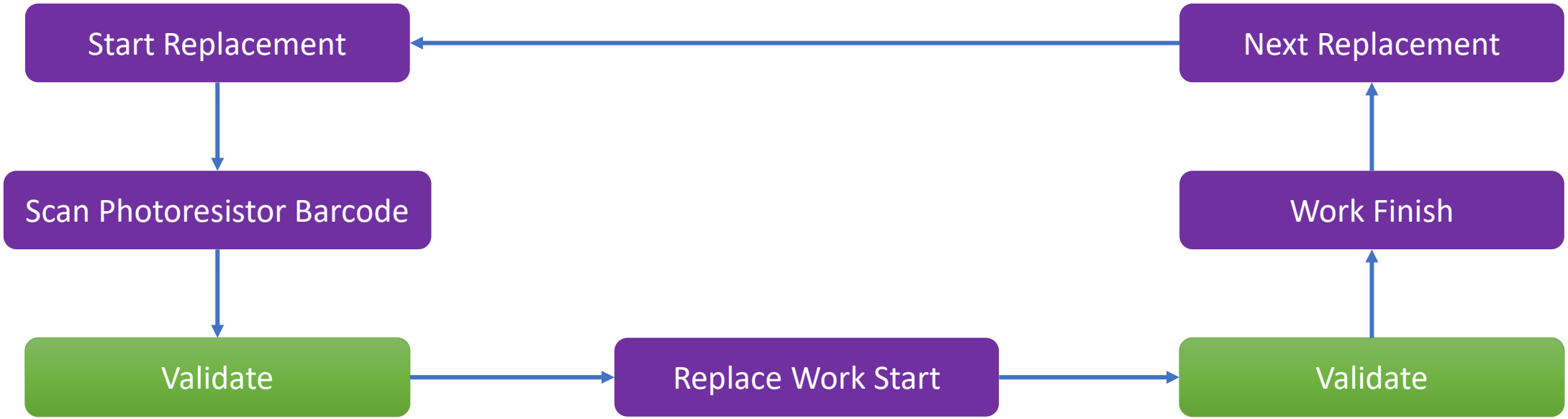


Business Logic/Domain Logic (3/4)



Business Logic/Domain Logic (4/4)

Operation process



Apply the MVVM/MVC Pattern

- Model
- View
- ViewModel/Controller

Model

- User
- PhotoResistor
- Record
- RecordView
- Device

View

- Login: Controls member access
- Operator View: Handles replacement work
- Replacement History List View: Tracks replacement history
- Detail View for a Single Item: Records replacement details

View Model/Controller

- User View Model
- Record View Model
- Device View Model
- Replace Part View Model

View ←map→ View Model

LoginView: Login View Model

OperatorView: UserViewModel, RecordViewModel, DeviceViewModel

ReplaceHistoryView: ReplacePartViewModel

ReplaceHistoryDetailView: ReplacePartViewModel