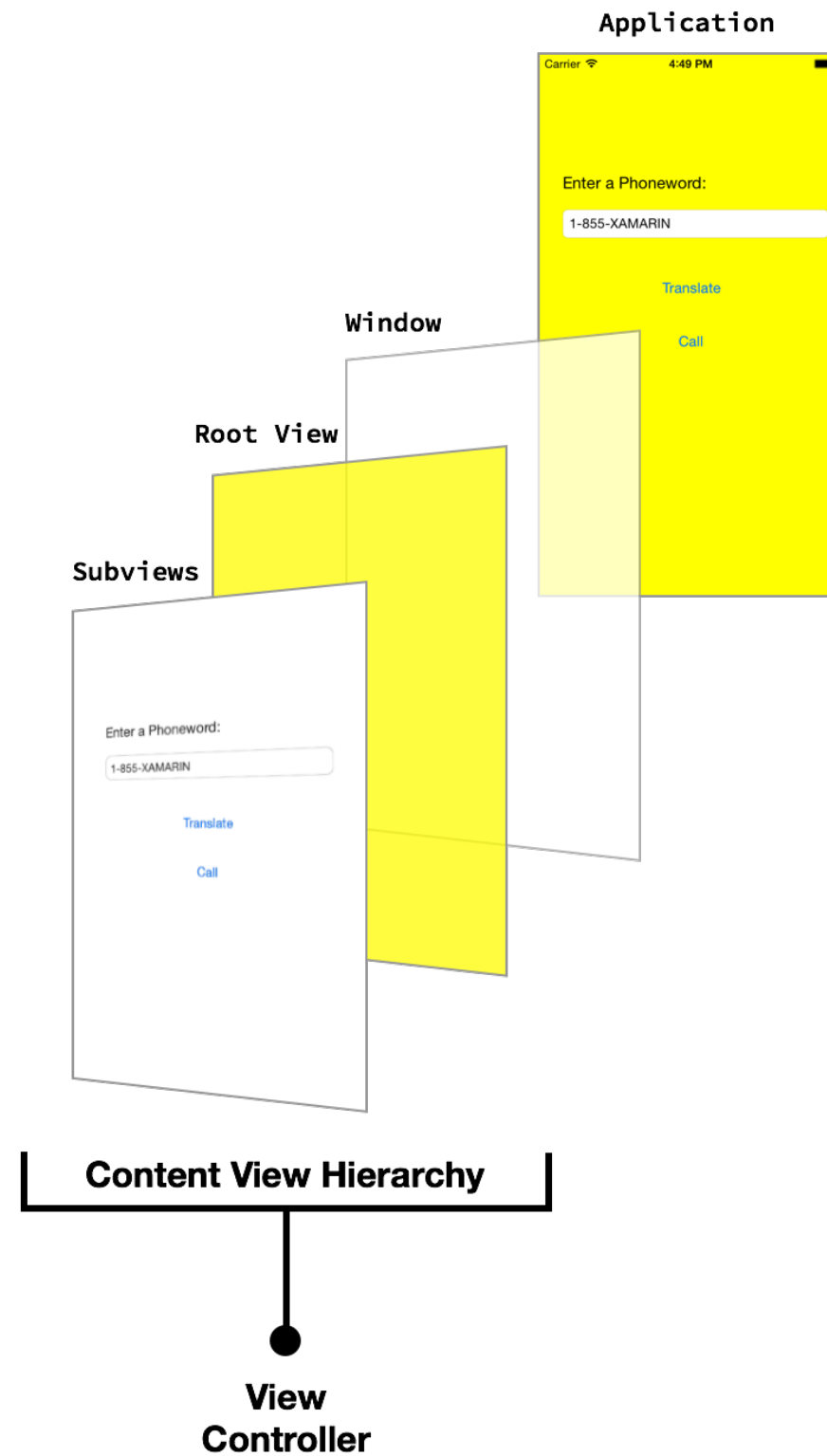
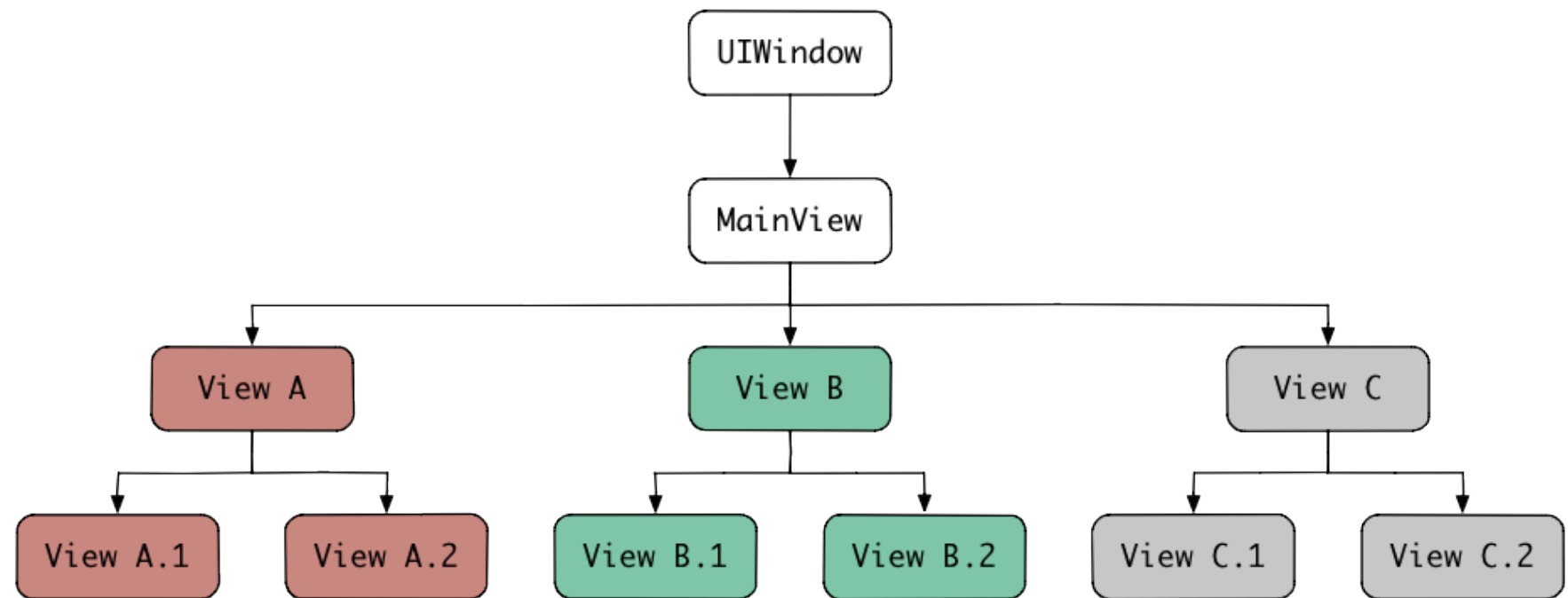
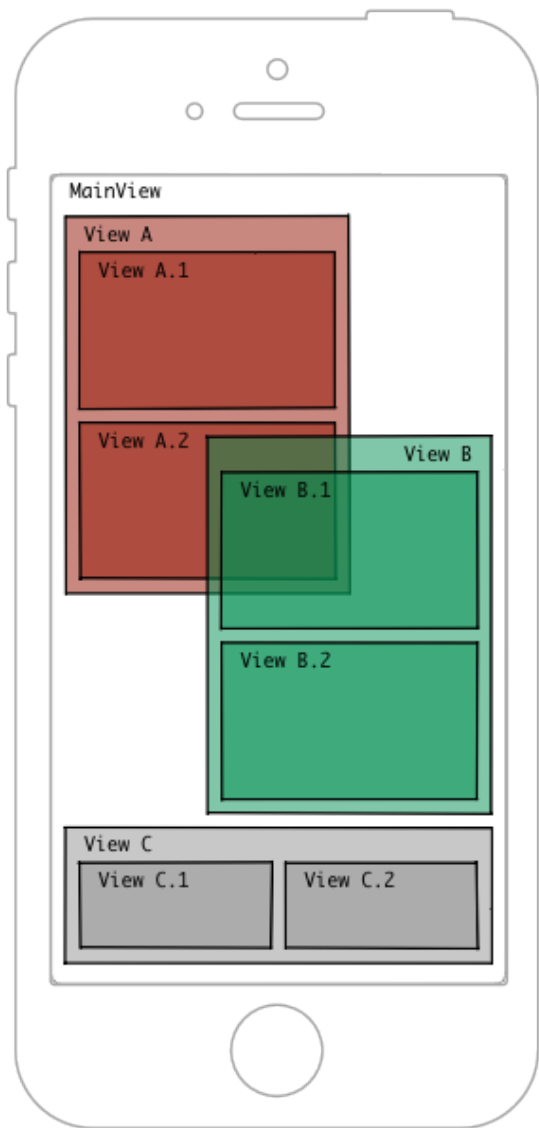


# UIKit Framework

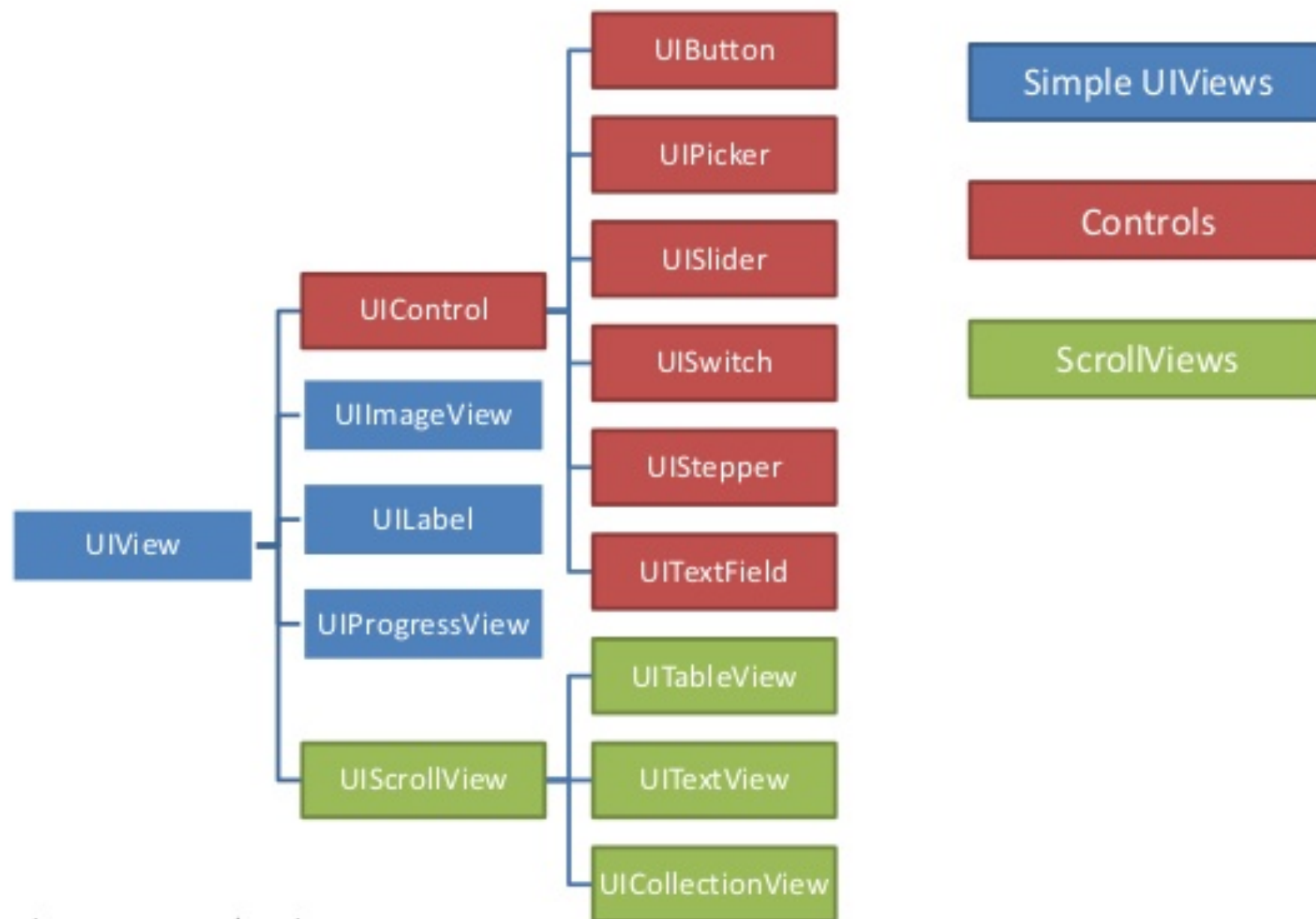
# iOS App의 View 계층



# iOS App의 View 계층

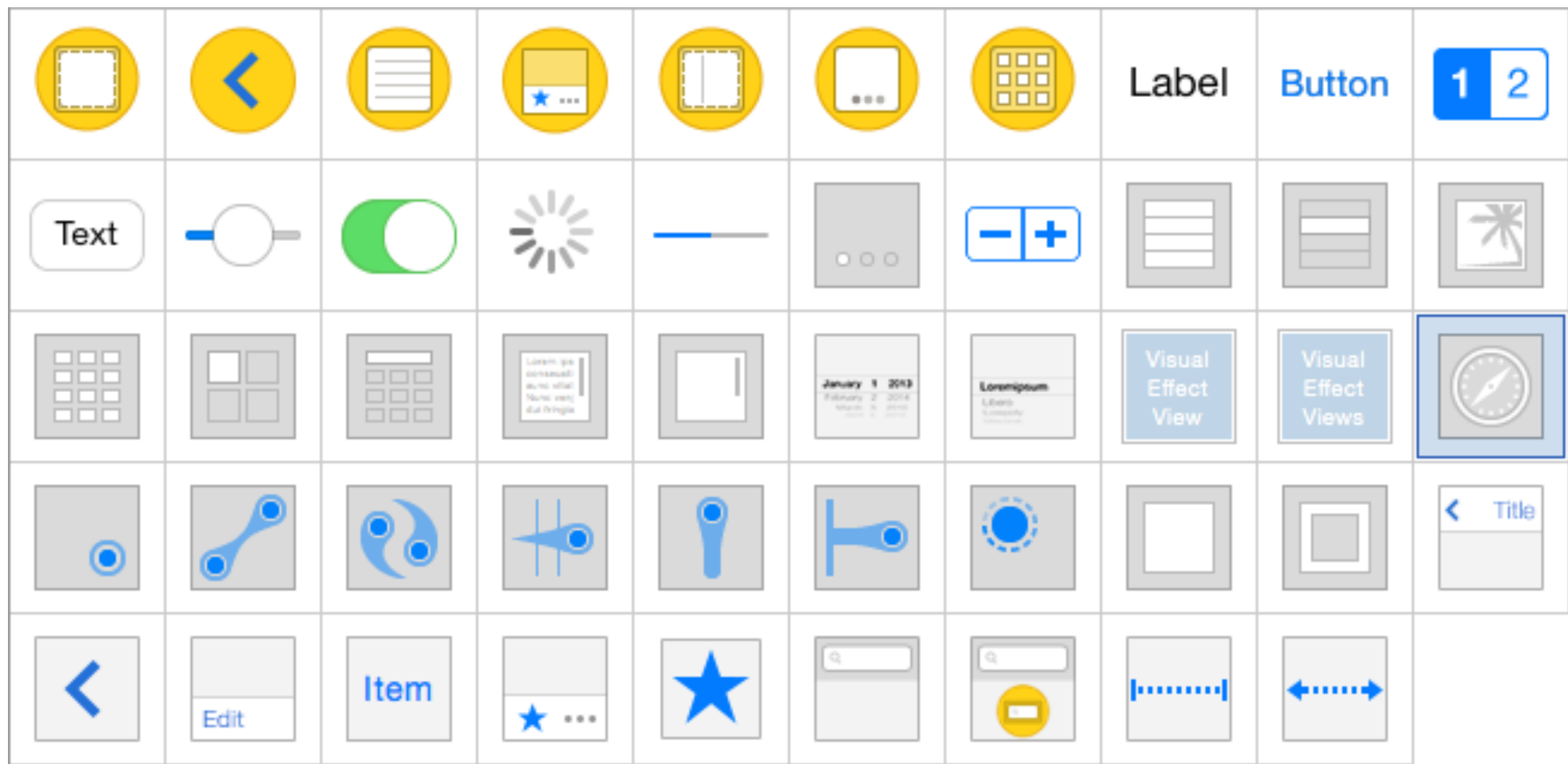


# UIView Subclasses



10,000 foot view, not comprehensive

# UIKit Controls & Views



# UIView 실습

```
override func viewDidLoad() {  
    super.viewDidLoad()  
    let view1 = UIView()  
    view1.frame = CGRect(x: 100, y: 100,  
        width: 200, height: 200)  
    let color = UIColor(red: 1.0, green: 0, blue: 0, alpha:  
1)  
    view1.backgroundColor = color  
    view.addSubview(view1)  
}
```

# UILabel 실습

```
override func viewDidLoad() {  
    super.viewDidLoad()  
    let label1 = UILabel()  
    label1.frame = CGRect(x: 100, y: 100, width: 200, height: 50)  
    label1.text = "HelloWorld!"  
    label1.font = UIFont.systemFont(ofSize: 30)  
    view.addSubview(label1);  
}
```

# UILabel 실습

```
@IBOutlet weak var label: UILabel!  
override func viewDidLoad() {  
    super.viewDidLoad()  
    label.text = "안녕하세요?"  
    label.textColor  
        = UIColor(red: 1, green: 0, blue: 1, alpha: 1)  
    label.backgroundColor = UIColor.orange  
    label.font = UIFont.boldSystemFont(ofSize: 30)  
    label.textAlignment = NSTextAlignment.center  
}
```



# UIButton 실습

```
class ViewController: UIViewController {  
    @IBOutlet weak var button: UIButton!  
  
    @IBAction func actTouch(_ sender: Any) {  
        label.text = "누르셨네요."  
    }  
  
    override func viewDidLoad() {  
        super.viewDidLoad()  
        button.setTitle("눌러주세요", for: UIControlState.normal)  
        button.setTitleColor(UIColor.blue, for: .normal)  
    }  
}
```

# UISegment 실습

```
@IBOutlet weak var segmentControl: UISegmentedControl!

@IBAction func actChange(_sender: Any) {
    label.text = "\(segmentControl.selectedSegmentIndex+1)
                번째를 눌러주셨습니다."
}

override func viewDidLoad() {
    super.viewDidLoad()
    segmentControl.setTitle("네번째", forSegmentAt: 3)
    segmentControl.setEnabled(false, forSegmentAt: 2)
    segmentControl.selectedSegmentIndex = 1
}
```

# UITextField 실습

```
@IBOutlet weak var textField: UITextField!
```

```
@IBAction func didEndOnExit(_ sender: Any) {  
    textField.resignFirstResponder()  
    label.text = textField.text  
}
```

# UISlider 실습

```
@IBOutlet weak var slider: UISlider!  
@IBAction func actSliderValueChange(_ sender: Any) {  
    label.text = "\(slider.value)"  
}
```

```
override func viewDidLoad() {  
    super.viewDidLoad()  
    slider.maximumValue = 100  
    slider.minimumValue = -100  
    slider.value = 0  
}
```

# UISwitch 실습

```
@IBOutlet weak var switch1: UISwitch!
```

```
@IBAction func actSwitch(_ sender: Any) {  
    if switch1.isOn {  
        label.text = "스위치가 켜졌습니다."  
    } else {  
        label.text = "스위치가 꺼졌습니다."  
    }  
}
```

# UIProgress 실습

```
@IBOutlet weak var progress: UIProgressView!
```

```
override func viewDidLoad() {
```

```
    super.viewDidLoad()
```

```
    progress.progress = 0.7 // 0 ~ 1.0
```

```
}
```

# UIStepper 실습

```
@IBOutlet weak var stepper: UIStepper!
```

```
@IBAction func actStepperValueChange(_ sender: Any) {  
    label.text = "\(stepper.value)"  
}
```

```
override func viewDidLoad() {  
    super.viewDidLoad()  
    stepper.minimumValue = 0  
    stepper.maximumValue = 10  
    stepper.stepValue = 0.2  
    stepper.value = 0  
}
```

# UIDatePicker 실습

```
@IBOutlet weak var datePicker: UIDatePicker!
```

```
@IBAction func actDateChanged(_ sender: Any) {  
    let date = datePicker.date  
    let dateFormatter: DateFormatter = DateFormatter()  
    dateFormatter.dateFormat = "yyyy-MM-dd HH:mm:ss"  
    label.text = dateFormatter.string(from: date)  
}
```



# UIImageView 실습1

```
@IBOutlet weak var imageView: UIImageView!
```

```
override func viewDidLoad() {  
    super.viewDidLoad()  
    let image = UIImage(named: "bts2")  
    imageView.image = image  
}
```

# UIImageView 실습2

```
var index = 0
var arrbts = ["bts1", "bts2", "bts3", "bts4", "bts5", "bts6", "bts7",
"bts8", "bts9"]
```

```
@IBOutlet weak var imageView: UIImageView!
```

```
@IBAction func actPrev(_ sender: Any) {
    if index > 0 {
        index -= 1
        let image = UIImage(named: arrbts[index])
        imageView.image = image
    }
}
```

```
@IBAction func actNext(_ sender: Any) {
    if index < arrbts.count-1 {
        index += 1
        let image = UIImage(named: arrbts[index])
        imageView.image = image
    }
}
```

# UIPageControl 실습

```
@IBOutlet weak var pageControl: UIPageControl!
```

```
override func viewDidLoad() {  
    super.viewDidLoad()  
    pageControl.numberOfPages = arrbts.count  
    pageControl.currentPage = index  
}
```

# UIScrollView 실습

```
@IBOutlet weak var scrollView: UIScrollView!  
@IBOutlet weak var imageView: UIImageView!  
override func viewDidLoad() {  
    super.viewDidLoad()  
    scrollView.contentSize = CGSize(width: 320, height: 2100)  
    scrollView.contentOffset.y = 100  
}
```