

```

1 //
2 // ViewController.swift
3 // HelloPoly
4 //
5 // Created by Me on 10/01/2019.
6 // Copyright © 2019 UCD. All rights reserved.
7 //
8
9 import UIKit
10
11 class ViewController: UIViewController {
12     @IBOutlet weak var decreaseButton: UIButton!
13     @IBOutlet weak var increaseButton: UIButton!
14     @IBOutlet weak var vertexCountLabel: UILabel!
15     @IBOutlet weak var polygonNameLabel: UILabel!
16
17     lazy var polygonModel: PolygonShape = {
18         let polygon = PolygonShape()
19         polygon.numberOfSides = 8
20         return polygon
21     }()
22
23     @IBAction func increaseSides(_ sender: UIButton) {
24         polygonModel.numberOfSides += 1
25         updateUI()
26     }
27
28     @IBAction func decreaseSides(_ sender: UIButton) {
29         polygonModel.numberOfSides -= 1
30         updateUI()
31     }
32
33     private func updateUI() {
34         polygonNameLabel.text = polygonModel.name
35         vertexCountLabel.text = "\(polygonModel.numberOfSides)"
36         decreaseButton.isEnabled = polygonModel.numberOfSides == 3 ? false : true
37         increaseButton.isEnabled = polygonModel.numberOfSides == 12 ? false : true
38     }
39
40     override func viewDidLoad() {
41         super.viewDidLoad()
42         // Do any additional setup after loading the view, typically from a nib.
43         updateUI()
44     }
45
46     override func didReceiveMemoryWarning() {
47         super.didReceiveMemoryWarning()
48         // Dispose of any resources that can be recreated.
49     }
50 }
51

```

```
1  //
2  //  PolygonShape.swift
3  //  HelloPoly
4  //
5  //  Created by Me on 10/01/2019.
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7  //
8
9  import UIKit
10
11 class PolygonShape: NSObject {
12     private let names = ["Triangle", "Square", "Pentagon", "Hexagon", "Heptagon", "Octagon", "Nonagon", "Decagon", "Hendecagon", "Dodecagon"]
13
14     var numberOfSides: Int = 8 {
15         didSet {
16             if !(3...12).contains(numberOfSides) {
17                 if oldValue <= 3 {
18                     numberOfSides = 3
19                 } else {
20                     numberOfSides = 12
21                 }
22             }
23         }
24     }
25
26     var name: String {
27         get {
28             return names[numberOfSides - 3]
29         }
30     }
31
32     override var description: String {
33         return name
34     }
35 }
36 |
```

- View Controller Scene
 - View Controller
 - View
 - Safe Area
 - Stack View
 - Stack View
 - Number of Sides:
 - Vertex Count Label
 - Stack View
 - Decrease
 - Increase Button
 - Polygon Name Label
 - Constraints
 - Stack View.top = Safe Ar...
 - Stack View.centerX = Saf...
 - Stack View.width = width
 - Polygon Name Label.cen...
 - Polygon Name Label.cen...
 - First Responder
 - Exit
 - Storyboard Entry Point

