```swift
// use blender to convert .obj to .dae
  convert dae to scn format   xcode → editor → convert to scn file


// viewController.swift
  import UIKit
  import SceneKit
  import ARKit
```

```swift
class ViewController: UIViewController, ARSCNViewDelegate {
    var sceneView: ARSCNView!
    private var hud : MBProgressHUD!

    override func viewDidLoad(){
        super.viewDidLoad()
        self.sceneView = ARSCNView (frame: self.view.frame)

        self.view.addSubview (self.sceneView)
        self.sceneView.autoenablesDefaultLighting = true
        sceneView.delegate = self

        let scene = SCNScene()
        sceneView.scene = scene
        downloadModels()

        registerGestureRecognizers ()
    }

    private func downloadModels(){
        DispatchQueue.main.async{
            self.hud = MBProgressHUD.showAdded (to: self.view, animated: true)
            self.hud.label.text = "Downloading Resources"
        }
        let url = URL(string: "http://www.highoncoding.com/publicFolder/office.scn")!
        URLSession.shared.dataTask(with: url) { data, response, error in
            if let error = error{
                print(error.localizedDescription)
                return
            }
            if let data = data{
                // save data to the phone
                DispatchQueue.main.async{
                    self.hud.hide (animated: true, afterDelay:1.0)
                }
            }
        }.resume()
    }
    private func registerGestureRecognizers(){
        let tapGestureRecognizer = UITapGestureRecognizer (target: self, action:#selector (tapped))
        self.sceneView.addGestureRecognizer (tapGestureRecognizer)
    }

    @objc func tapped (recognizer: UIGestureRecognizer){

        // read the data
```

```swift
do {
    let scene = try SCNScene(url: fileURL, options: nil)
    let node = scene.rootNode.childNode(withName: "books", recursively: true)!
    node.position = SCNVector3(0, 0, -0.5)
    self.sceneView.scene.rootNode.addChildNode(node)
} catch {
    print(error)
}
}
```