

```
//FIREBASE + SDWEBIMAGE IN INSTAGRAM CLONE APP
//
//(https://console.firebase.google.com)(https://github.com/SDWebImage/SDWebImage)
```

```
// ViewController.swift
// SampleInstagram
//
// Created by oppmacsom on 09/09/2019.
// Copyright © 2019 oppmacsom. All rights reserved.
//0..1..2..3..4..5..->11
```

```
import UIKit
import Firebase
```

```
//0,1 create project on googlefirebase web 0,2- register your app there
(https://console.firebase.google.com/project/sampleinstagram-a2e62/overview), 0,3- create a pod (https://cocoapods.org) 0,4- choose
firebase SDK and write it inside pod text, 0,5- run pod on terminal so
its download sdk 0,6- run xcworkspace extension, on AppDelegate.swift --
> import firebase + firebase.configure(), 0,7- go your coding and
design, 0,8- firebase-de initialize yapilacak.. (https://console.firebase.google.com/project/sampleinstagram-a2e62/authentication/users))
```

```
class ViewController: UIViewController {

    @IBOutlet weak var appLabel: UILabel!
```

```
@IBOutlet weak var emailTxt: UITextField!  
@IBOutlet weak var passTxt: UITextField!
```

```
override func viewDidLoad() {  
    super.viewDidLoad()
```

```
//CURRENTUSER CALISMIYOR !!! GOOGLE IN ONERISI ISE YARADIIIIIIIIII....  
(https://firebase.google.com/docs/auth/ios/manage-users)) ... ASAGIDA  
---->
```

```
/*
```

```
//3,0.. VIEWDIDLOWAD ALTINDAKI DENEME...
```

```
kullaniciyi giriste hatirlama modu... yani aslinda firebaseden  
cikis yapmamissan yeniden sifre yazmaya gerek kalmasin.. bu da firebase  
auth un sundugu bir hizmet.. bunu kullan. bu kod viewDidLoad altinda  
calisiyormus eskiden ama bilahare window taniminin yapildigi yere (scene  
delegate veya appDelegate) calistirmek gerekiyor. burada da scene i  
tanimlayan yere almak lazim. xcode10.3 te bu isimde bir yer yok ben de o  
yuzde appDelegate.swift altinda applicationWillEnterForeground altina  
tasidim/olmadi geri aldim gene olmadi....
```

```
let currentUser = Auth.auth().currentUser  
if currentUser != nil {  
    self.performSegue(withIdentifier: "toFeed", sender: nil)  
}
```

//3,0,0.. kullanıcıyı giriste hatırlama modu.. yani aslında firebaseden cikis yapmamissan yeniden sifre yazmaya gerek kalmasin.. bu da firebase auth un sundugu bir hizmet.. bunu kullan. bu kod viewdidload altinda calisiyormus eskiden ama bilahare window taniminin yapildigi yere (scene delegate veya appdelegate) calistirmek gerekiyor... yani maksat.. current user cari ise, falan ekrandan root et, tekrar sign in ekrani gosterme.

//3,0,1.. XCODE 11 DE SCENE.SWIFT ALTINDKI DENEME :

```
let currentUser = Auth.auth().currentUser
if currentUser != nil {
```

//3,1... view controller altinda olmadigimiz icin bu calismaz.

iptal.. self.performSegue(withIdentifier: "toFeed", sender: nil).. onun yerine :

//3,0,2 rootviewController tanımlayacagiz

```
let board = UIStoryboard(name: "Main", bundle: nil)
```

```
let tabBar = board.instantiateViewController(withIdentifier:
"tabBar") as! UITabBarController
```

```
window?.rootViewController = tabBar
```

```
}
```

```
*/
```

//3...

```
Auth.auth().addStateDidChangeListener { (auth, user) in
```

```
    if Auth.auth().currentUser != nil {
```

```
        self.performSegue(withIdentifier: "toFeed", sender: nil)
```

```

    } else {
        // No user is signed in.
        // ...
    }
    //3,0,0 burasi benim google-dan aparma denemem.. user kim onu
    print etmeye calisiyorum
    let userInfo = Auth.auth().currentUser?.providerData
    print(" \ (UserInfo.self)")
}

```

```

}

```

```

@IBAction func signInButton(_ sender: Any) {
    //2,0..iptal: performSegue(withIdentifier: "toFeed", sender:
    nil)
    //2,1.. auth hizmeti signIn yaptiriyor bunu ayarla.. error ve
    authresult isimlrini ver sadece, hata durumunda ne mesaj verilecek bunu
    ayarla.. else durumunda ne yapacak bunu ayarla
    if emailTxt.text != "" && passTxt.text != "" {
        Auth.auth().signIn(withEmail: emailTxt.text!, password:
        passTxt.text!) { (authdataresultat, error) in
            if error != nil {
                self.makeAlert(titleInput: "Error", messageInput:
                error?.localizedDescription ?? "Error during Auth")
            }
        }
    }
}

```

```

        } else {
            //2,2.. hata vermediyse demekki sign in oldu artik
feed ekranina gidebiliriz
            self.performSegue(withIdentifier: "toFeed", sender:
nil )
        }
    }

    } else {
        //2,3..
        makeAlert(titleInput: "lacking field", messageInput:
"email/pass is empty")
    }
}

```

```

@IBAction func signupButton(_ sender: Any) {
    //1,1 firebase de kullanici olusturmak icin...
    if emailTxt.text != "" && passTxt.text != "" {
        Auth.auth().createUser(withEmail: emailTxt.text!, password:
passTxt.text!) { (authdataresult, error) in
            //1,4
            if error != nil {
                self.makeAlert(titleInput: "Error", messageInput:
error?.localizedDescription ?? "Error during Auth")
            }else{
                //1,5
                self.performSegue(withIdentifier: "toFeed", sender:
nil )
            }
        }
    }
}

```

```

        }
    }
    }else{
        //1,3
        makeAlert(titleInput: "lacking field", messageInput: "email/
pass is empty")
    }
}
//1,2
func makeAlert (titleInput : String, messageInput : String) {
    let alert = UIAlertController(title: titleInput, message:
messageInput, preferredStyle: UIAlertController.Style.alert)
    let okButton = UIAlertAction(title: "OK", style:
UIAlertAction.Style.default, handler: nil)
    alert.addAction(okButton)
    self.present(alert, animated: true, completion: nil)
}

```

```

}

```

```

//
// UploadVC.swift
// SampleInstagram
//
// Created by oppmacsom on 09/09/2019.

```

```
// Copyright © 2019 oppmacsom. All rights reserved.  
//
```

```
import UIKit
```

```
//6,0.. firebase storage islemleri icin:
```

```
import Firebase
```

```
//5,2 .. picker ve navigation delegate yetkileri gelsin
```

```
class UploadVC: UIViewController, UIImagePickerControllerDelegate,  
UINavigationControllerDelegate {
```

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

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

```
    @IBOutlet weak var sendButton: UIButton!
```

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

```
        super.viewDidLoad()
```

```
        //5,0 dokunakli-resim eklemek icin...
```

```
        imageView.isUserInteractionEnabled = true
```

```
        let tapGest = UITapGestureRecognizer(target: self, action:
```

```
#selector(addImage))
```

```
        imageView.addGestureRecognizer(tapGest)
```

```
    }
```

```
    //6,8
```

```
    func warningAlert (title:String, message:String) {
```

```
        let aalert = UIAlertController (title: title, message: message,  
preferredStyle: UIAlertController.Style.alert)
```

```
        let okButton = UIAlertAction(title: "got it", style:
UIAlertAction.Style.default, handler: nil)
        aalert.addAction(okButton)
        self.present(aalert, animated: true, completion: nil)
    }
```

//5,1

```
@objc func addImage () {
```

```
    let pickImage = UIImagePickerController()
    pickImage.delegate = self
    pickImage.sourceType = .photoLibrary
    present(pickImage, animated: true, completion: nil)
```

```
}
```

*//5,3 .. secim yapildi. simdi alinan image, bir info key ile sozluge/dictionary eklensin.. ve picker kapansin.*

```
func imagePickerController(_ picker: UIImagePickerController,
didFinishPickingMediaWithInfo info: [UIImagePickerController.InfoKey :
Any]) {
```

```
    imageView.image = info[.originalImage] as? UIImage
    self.dismiss(animated: true, completion: nil)
```

```
}
```

*//5,4.. infolist privacy ye photolibrary aciklamasi gir..*



```
@IBAction func sendButtonKlikk(_ sender: Any) {  
    //6,1.. sendklikk nedeniyle firebase de bir storage olusturmak lazim  
    let sstorage = Storage.storage()  
  
    //6,2 .. bu storage icinde nereye gonderecek, dosyalari, buna  
    referans denir..once bunu kuvve ilan edelim sonra ona fiile cevirelim..  
    ruh/beden, fikir/hareket, kuvve/fiil.  
    let sstorageRef = sstorage.reference()  
  
    //6,3..o beden dosya/folder/file olacak.onu da .child diyerek  
    yapacaz.  
    let mediaFolder = sstorageRef.child("media")  
  
    //6,4 ..resimlerimizi kaydetmek icin data-ya donusturmemiz  
    lazim. gallery app de oldugu gibi...  
    if let imageData = imageView.image?.jpegData(compressionQuality:  
0.8){  
        //6,5.. donusturma isleminden sonra onu media folder acip  
        icine koyelim -putdata-  
        //let imageRef = mediaFolder.child("photo.jpg")  
  
        //6.6.. fakat tum upload imagelari ayni isimle kaydedecek,  
        boyle olunca o yuzden onlari uuid ye gore kaydettirmeli ki ustune  
        yazmasin  
        let uuid = UUID().uuidString  
        let imageRef = mediaFolder.child("\(uuid).jpg")  
        //6,7  
        imageRef.putData(imageData, metadata: nil) { ( metadata,
```

error) in

```
        if error != nil {
            //6,9
            self.warningAlert(title: "error", message:
error?.localizedDescription ?? "error")
            // print(error?.localizedDescription)
        }else{
            //6,6.. kaydin nereye yapildigini alalim
            imageRef.downloadURL(completion: { (url, error) in
                if error == nil {
                    let imageUrl = url?.absoluteString
                    print(imageUrl as Any)

                    //7... database starts, from now on
                    let fsDatabase = Firestore.firestore()
                    var fsRef : DocumentReference? = nil

                    //7,2 asagida collection bir dictionary
gerektiriyor oyleyse onu burda verelim yani hangi bilgileri dictionary
ye almak istiyorsak.

                    let fsPost = ["imageUrl" : imageUrl!,
"postedBy" : Auth.auth().currentUser?.email! as Any, "postComment" :
self.yourSayTxt.text!, "date" : FieldValue.serverTimestamp(), "likes" :
0 ] as [String:Any]

                    //7,1 ..database'da post adinda bir
collection acalim. data oraya kaydedilsin.
```

```
fsRef =
fsDatabase.collection("Posts").addDocument(data: fsPost, completion:
{ (error) in
    if error != nil {
        self.warningAlert(title: "Error",
message: error?.localizedDescription ?? "Error")
    } else {
        //7,3 .. islem gerceklesirse beni
feed tabina gotursun resim bos.. comment bos olsun..
self.yourSayTxt.text = ""
self.imageView.image =
UIImage(named: "clikk")

self.tabBarController?.selectedIndex
= 0
    }
})
}
}))
}
```

```
}
```

```
}
```

```
//
```

```
// FeedUpVC.swift
```

```
// SampleInstagram
```

```
//
```

```
// Created by oppmacsom on 09/09/2019.
```

```
// Copyright © 2019 oppmacsom. All rights reserved.
```

```
//8,0 feedcell olusturmak
```

```
//10,0 gorselleri uygulamada goremiyoruz. firestore onu depoluyor  
sadece. gorselleri async olarak indirip cell icinde gostermek icin  
internette free hizmetler/kutuphaneler var. bunlari kullanacaz.
```

```
/** push notifications deneme dersleri de bu app uzerinden ancak  
bunun icin developer hesabi lazim. SECTION16/DERS 165-172
```

```
import UIKit
```

```
//9,1
```

```
import Firebase
```

```
//10,1.. resimleri gosterebilmek icin sdweb image pod indirdik, simdi..  
import edip, resim datasini gosterecegimiz tableView ayarlarina gidip,  
sdwebimage sitesinde onerilen ayarlari yapalim.
```

```
import SDWebImage
```

```
//8,2
```

```
class FeedUpVC: UIViewController, UITableViewDelegate,  
UITableViewDataSource {
```

```
    func tableView(_ tableView: UITableView, numberOfRowsInSection:  
section: Int) -> Int {
```

```
        //8,3
```

```
        return emailArray.count
```

```
    }
```

```
    func tableView(_ tableView: UITableView, cellForRowAt indexPath:  
IndexPath) -> UITableViewCell {
```

```
        //8,4... cell, oncekiler gibi tanimlanmayacak..inspector  
panelinden prototype cell 1 adet sec.. sonra o cell a cocotouch/tablecell  
ekle/swift nesnesi tanimla... sonra buraya gel, let cell-->deque goster.  
boylece o cell icindeki nesnelere ulasip tanimlama yapabil.
```

```
        let cell = tableView.dequeueReusableCell(withIdentifier: "cell",  
for: indexPath) as! FeedUpCell
```

```
        //8,5
```

```
        cell.commentLabel.text = commentArray[indexPath.row]
```

```
        /**israrla yukaridaki satiri gosterip index out of range hatasi  
veriyor buna bakmam lazim.**
```

```
        cell.countLabel.text = String(likeArray[indexPath.row])
        cell.feedownerLabel.text = emailArray[indexPath.row]
        //10,1..sdweb ile urlden resmi indirip gostermek
        //cell.feedImage.image = UIImage(named: "clikk")
        cell.feedImage.sd_setImage(with: URL(string:
self.imageArray[indexPath.row]))
        cell.documentIdLabel.text = docuIdArray[indexPath.row]
        return cell
    }
```

```
    //9,9,1 cekilecek data array icinde gelecek o yuzden onlari
    tableView da gostermek icin mukabil array dizileri olursuturalim
```

```
    var emailArray = [String]()
    var commentArray = [String]()
    var likeArray = [Int]()
    var imageArray = [String]()
    var dateArray = [Date]()
```

```
    //11,0 hangi document idnin like ina tiklanmissa onu 1 artitip geri
    kaydedecez. bunun icin dokument id leri bir array de toplayalim,
    dokument id uzerinden calisma yapabilmek icin.
```

```
    var docuIdArray = [String]()
```

```
//8,0 tableView to feed
```

```
@IBOutlet weak var tableView: UITableView!
```

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

```
super.viewDidLoad()
```

```
//8,1
```

```
tableView.delegate = self  
tableView.dataSource = self
```

```
//9,8..
```

```
getDataFireStorm()
```

```
}
```

```
//9,0 veri çekmek.. firebase documents-ta da anlatiliyor..
```

```
func getDataFireStorm () {
```

```
//9,2
```

```
let fsDatabase = Firestore.firestore()
```

```
//9,3
```

```
/* asagida enable islemi eskiden gerekiyor.. date ayari hata  
veriyorumus.. bu onu duzeltmek icin kullanilir imis.... ama simdi gerek  
yok cunku zaten enabled by default.
```

```
let settings = fsDatabase.settings
```

```
settings.areTimestampsInSnapshotsEnabled = true
```

```
fsDatabase.settings = settings
```

```
*/
```

```
//9,4.. evvelen olusturdugumuz collecsiyon-dan bir listener bize  
data cekecek/verecek.
```

```
//11.. order by ekliyoruz listener oncesine.noktadan sonra..
```

```
fsDatabase.collection("Posts").order(by: "date", descending:
```

```

true).addSnapshotListener { (snapshot, error) in
    if error != nil {
        print(error!.localizedDescription)
    } else {
        //9,5 snapshot dokumani bir array yani bizim evvelen
        olusturdugumuz tum anahtar ve karsiliklar verilecek bize
        //9,6.. snapshot any tipinde gorunuyor.. onun bos
        olmadigindan emin olup ! yapalim
        if snapshot?.isEmpty != true {

            //10,2.. mukerrer kayit gosteriyor.. bunlari silmek
            icin ..

            self.imageArray.removeAll(keepingCapacity: false)
            self.commentArray.removeAll(keepingCapacity: false)
            self.likeArray.removeAll(keepingCapacity: false)
            self.imageArray.removeAll(keepingCapacity: false)
            self.dateArray.removeAll(keepingCapacity: false)
            //11,1,1
            self.docuIdArray.removeAll(keepingCapacity: false)

            //9,7 .. snapshot bir array verecegi icin, ordan
            for .. in .. ile ayiklama yapabiliriz..
            for document in snapshot!.documents {
                //9,9 deneyelim bakalim istedigimiz datayi
                cekebiliyor muyuz

                let dokumentID = document.documentID
                print(dokumentID)
            }
        }
    }
}

```



```

//11,1,2
self.docuIdArray.append(dokumentID)

String {
    if let postedBy = document.get("postedBy") as?
        print(postedBy)
        //9,9,2 cekilen datayi array e ekle..
        self.emailArray.append(postedBy)
    }
    /* bu nasıl yapılacak.. sonra bak....
    if let date = document.get("date") as? Date {
        print(date)
        self.dateArray.append("date")
    } */

    if let likes = document.get("likes") as?
        print(likes)
        self.likeArray.append(likes)
    }

    if let postComment =
document.get("postComment") as? String {
        print(postComment)

self.commentArray.append(postComment)
    }

    if let imageUrl =
document.get("imageUrl") as? String {
        print(imageUrl)
    }
}

```

```
self.imageArray.append(imageUrl)
```

```
}
```

```
//9,9,3.. tableview ayarlari bitince tabloya
```

```
reload et..
```

```
self.tableView.reloadData()
```

```
}
```

```
}
```

```
}
```

```
}
```

```
}
```

```
}
```

```
//INSTAGRAMCLONE APP
```

```
// FeedUpCell.swift
```

```
//
```

```
//
```

```
// Created by oppmacsom on 21/09/2019.
```

```
//
```

```
import UIKit
```

```
//11,1,4
```

```
import Firebase
```

```
class FeedUpCell: UITableViewCell {
```

```
    @IBOutlet weak var commentLabel: UILabel!
```

```
    @IBOutlet weak var feedownerLabel: UILabel!
```

```
    @IBOutlet weak var likeButton: UIButton!
```

```
    @IBOutlet weak var countLabel: UILabel!
```

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

```
//11,1,3
```

```
    @IBOutlet weak var documentIdLabel: UILabel!
```

```
override func awakeFromNib() {
```

```
    super.awakeFromNib()
```

```
    // Initialization code
```

```
}
```

```
override func setSelected(_ selected: Bool, animated: Bool) {
```

```
    super.setSelected(selected, animated: animated)
```

```
    // Configure the view for the selected state
```

```
}
```

```
@IBAction func likeClikk(_ sender: Any) {
```

```
    print("like button clicked")
```

```
    //11,5
```

```
    let fsDataBase = Firestore.firestore()
```

```
    if let likeCount = Int(countLabel.text!) {
```

```
//guncelleme yapabilmek icin string to any olarak cast etmek
gerekiyorud

        let likeStore = ["likes" : likeCount + 1] as [String : Any]

fsDataBase.collection("Posts").document(documentIdLabel1.text!).setData(likeStore, merge: true)

    }

}

}

//
// AppDelegate.swift
// SampleInstagram
//
// Created by oppmacsom on 09/09/2019.
// Copyright © 2019 oppmacsom. All rights reserved.
//

import UIKit
```

```
import Firebase

@UIApplicationMain
class AppDelegate: UIResponder, UIApplicationDelegate {

    var window: UIWindow?


    func application(_ application: UIApplication,
didFinishLaunchingWithOptions launchOptions:
[UIApplication.LaunchOptionsKey: Any]?) -> Bool {
        // Override point for customization after application launch.

        FirebaseApp.configure()
        return true
    }

    func applicationWillResignActive(_ application: UIApplication) {
        // Sent when the application is about to move from active to
inactive state. This can occur for certain types of temporary
interruptions (such as an incoming phone call or SMS message) or when
the user quits the application and it begins the transition to the
background state.
        // Use this method to pause ongoing tasks, disable timers, and
invalidate graphics rendering callbacks. Games should use this method to
    }
```

*pause the game.*

}

```
func applicationDidEnterBackground(_ application: UIApplication) {  
    // Use this method to release shared resources, save user data,  
invalidate timers, and store enough application state information to  
restore your application to its current state in case it is terminated  
later.
```

```
    // If your application supports background execution, this  
method is called instead of applicationWillTerminate: when the user  
quits.
```

}

```
func applicationWillEnterForeground(_ application: UIApplication) {  
    // Called as part of the transition from the background to the  
active state; here you can undo many of the changes made on entering the  
background.
```

}

```
func applicationDidBecomeActive(_ application: UIApplication) {  
    // Restart any tasks that were paused (or not yet started) while  
the application was inactive. If the application was previously in the  
background, optionally refresh the user interface.
```

```
}
```

```
func applicationWillTerminate(_ application: UIApplication) {  
    // Called when the application is about to terminate. Save data  
if appropriate. See also applicationWillEnterBackground:.
```

```
}
```

```
}
```

```
//
```

```
// SettingsVC.swift
// SampleInstagram
//
// Created by oppmacsom on 09/09/2019.
// Copyright © 2019 oppmacsom. All rights reserved.
//
```

```
import UIKit
//4,1.. fairebase den de logout olmak icin.. bu controllerda firebase
import edecez
import Firebase
```

```
class SettingsVC: UIViewController {
```

```
    override func viewDidLoad() {
        super.viewDidLoad()
```

```
        // Do any additional setup after loading the view.
    }
```

```
    @IBAction func LogoutButton(_ sender: Any) {
```

```
        //4,0... harbiden logout olmak istiiyoruz o yuzden bu iptal..
        performSegue(withIdentifier: "toVC", sender: nil)
```

```
        //4,2.. log out olmak = signout.. buna da throw istiyor.. o
        yuzden DTC yapacaz
```

```
        do {
```



```
        try Auth.auth().signOut()  
            self.performSegue(withIdentifier: "toVC", sender: nil)  
        } catch {  
            print("signout dtc error")  
        }  
  
    }  
  
}
```

```
}
```

```
_____ PODFILE _____  
# Uncomment the next line to define a global platform for your project  
# platform :ios, '9.0'
```

```
target 'SampleInstagram' do  
    # Comment the next line if you don't want to use dynamic frameworks  
    use_frameworks!
```

```
pod 'Firebase/Analytics'  
pod 'Firebase/Auth'  
pod 'Firebase/Firestore'  
pod 'Firebase/Storage'  
pod 'Firebase/Core'
```

```
pod 'SDWebImage'
```

```
  # Pods for SampleInstagram
```

```
end
```