

The screenshot shows the Xcode interface with the file structure on the left and the code editor on the right.

File Structure:

- Smack
- Smack
- XIBs
- ProfileVC.xib
- Services
- AuthService.swift (selected)
- UserDataService.swift
- Utilities
- Constants.swift
- Model
- View
 - GradientView.swift
 - RoundedButton.swift
 - AvatarCell.swift
 - CircleImage.swift
- Controller
 - ChatVC.swift
 - ChannelVC.swift
 - LoginVC.swift
 - CreateAccountVC.swift

Code Editor (Constants.swift):

```
4 //  
5 // Created by Jonny B on 7/14/17.  
6 // Copyright © 2017 Jonny B. All rights reserved.  
7 //  
8  
9 import Foundation  
10  
11 typealias CompletionHandler = (_ Success: Bool) -> ()  
12  
13 // URL Constants  
14 let BASE_URL = "https://chattychatjb.herokuapp.com/v1/"  
15 let URL_REGISTER = "\(BASE_URL)account/register"  
16 let URL_LOGIN = "\(BASE_URL)account/login"  
17 let URL_USER_ADD = "\(BASE_URL)user/add"  
18 let URL_USER_BY_EMAIL = "\(BASE_URL)user/byEmail/"  
19  
20 // Colors
```

The line `18 let URL_USER_BY_EMAIL = "\(BASE_URL)user/byEmail/"` is highlighted with a red rounded rectangle.



The image shows a developer's workspace with a file browser on the left and a code editor on the right. The file browser lists project files under 'Smack' and its subfolders. The code editor displays 'Constants.swift' with various URL, color, notification, segue, user default, and header constants. A red box highlights the 'BEARER_HEADER' definition.

```
// URL Constants
14 let BASE_URL = "https://chattychatjb.herokuapp.com/v1/"
15 let URL_REGISTER = "\(BASE_URL)account/register"
16 let URL_LOGIN = "\(BASE_URL)account/login"
17 let URL_USER_ADD = "\(BASE_URL)user/add"
18 let URL_USER_BY_EMAIL = "\(BASE_URL)user/byEmail/"

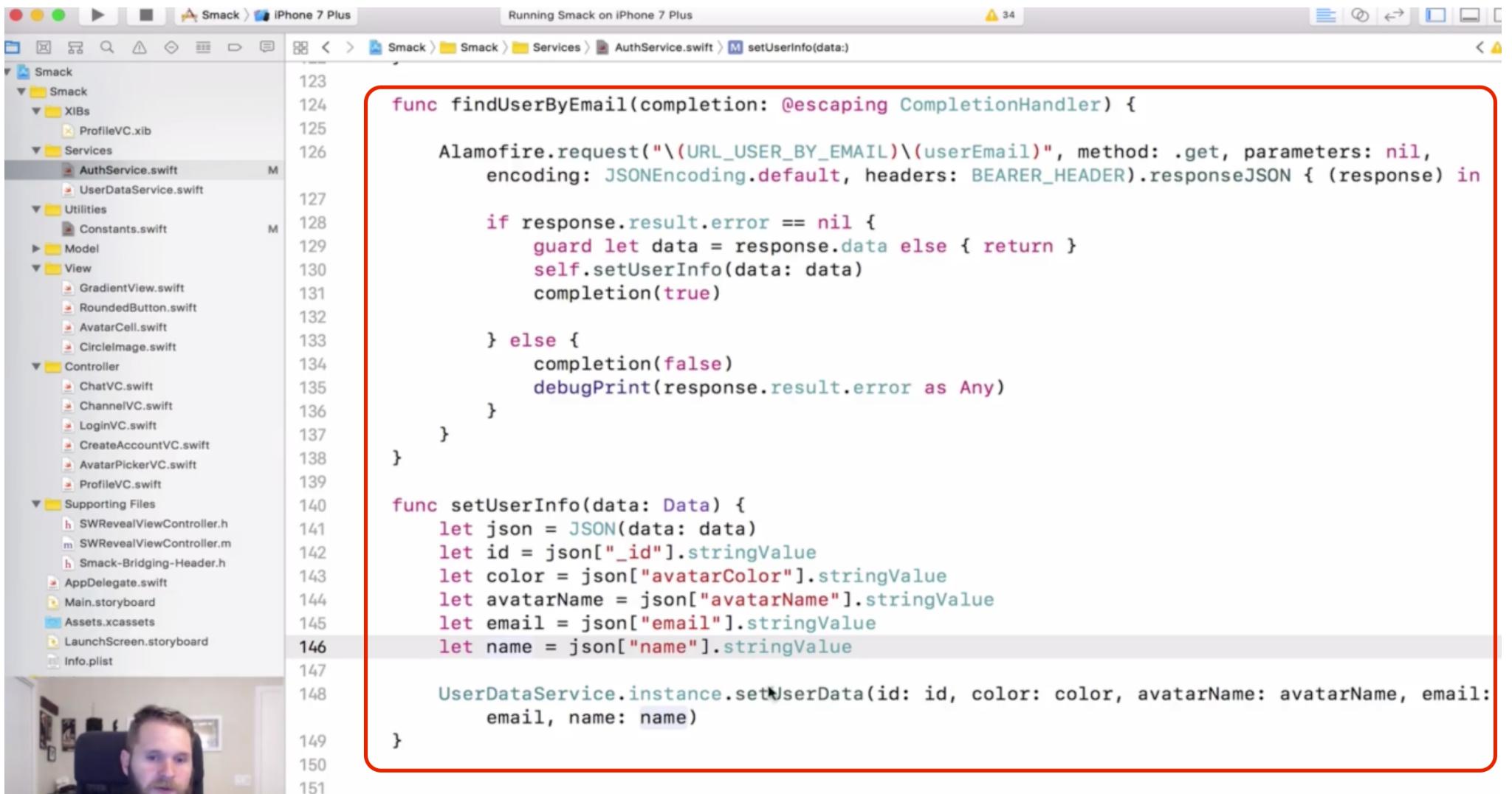
19
20 // Colors
21 let smackPurplePlaceholder = □

22
23 // Notification Constants
24 let NOTIF_USER_DATA_DID_CHANGE = Notification.Name("notifUserDataChanged")
25

26 // Segues
27 let TO_LOGIN = "toLogin"
28 let TO_CREATE_ACCOUNT = "toCreateAccount"
29 let UNWIND = "unwindToChannel"
30 let TO_AVATAR_PICKER = "toAvatarPicker"
31

32 // User Defaults
33 let TOKEN_KEY = "token"
34 let LOGGED_IN_KEY = "loggedIn"
35 let USER_EMAIL = "userEmail"
36

37 // Headers
38 let HEADER = [
39     "Content-Type": "application/json; charset=utf-8"
40 ]
41
42 let BEARER_HEADER = [
43     "Authorization": "Bearer \(AuthService.instance.authToken)",
44     "Content-Type": "application/json; charset=utf-8"
45 ]
```



A screenshot of an Xcode workspace titled "Smack" running on an iPhone 7 Plus simulator. The project structure on the left shows files like ProfileVC.xib, AuthService.swift, Constants.swift, GradientView.swift, etc. The AuthService.swift file is open, and its code is highlighted with a red box. The code implements a function to find a user by email using Alamofire and parses the JSON response to set user info.

```
func findUserByEmail(completion: @escaping CompletionHandler) {
    Alamofire.request("\(URL_USER_BY_EMAIL)\(userEmail)", method: .get, parameters: nil,
        encoding: JSONEncoding.default, headers: BEARER_HEADER).responseJSON { (response) in
        if response.result.error == nil {
            guard let data = response.data else { return }
            self.setUserInfo(data: data)
            completion(true)
        } else {
            completion(false)
            debugPrint(response.result.error as Any)
        }
    }
}

func setUserInfo(data: Data) {
    let json = JSON(data: data)
    let id = json["_id"].stringValue
    let color = json["avatarColor"].stringValue
    let avatarName = json["avatarName"].stringValue
    let email = json["email"].stringValue
    let name = json["name"].stringValue

    UserDataService.instance.setUserData(id: id, color: color, avatarName: avatarName, email: email, name: name)
}
```

Smack < > Smack > Main....yboard > Main....(Base) > LoginV...Scene > LoginVC > View > Large White Activity Indicator < ! >

Reveal View Controller...

ChannelVC Scene

LoginVC Scene

LoginVC

- Top Layout Guide
- Bottom Layout Gui...
- View
 - Stack View
 - Button
 - B Don't have an a...
 - Stack View
 - B Login
- Large White Ac...
- Constraints

First Responder

Exit

Show segue "toCreate..."

Create AccountVC Scene

Create AccountVC

- Top Layout Guide
- Bottom Layout Gui...
- View
 - L Create an acco...
 - B Button
 - Stack View
 - B Create Account
 - User Img
 - B Choose avatar
 - B Generate backg...
 - Spinner
 - Constraints

First Responder

Exit

Unwind segue "unwind..."

Show segue "toAvatar..."

Avatar PickerVC Scene

ChatVC Scene

Activity Indicator

Style

Color

Behavior

View

Content Mode

- Semantic
- Tag

Interaction

Alpha

Background

Tint

Drawing

Stretching

username

password

Smack

Login

Don't have an account? Sign up here

Add New Alignment Constraints

- Leading Edges
- Trailing Edges
- Top Edges
- Bottom Edges
- Horizontal Centers
- Vertical Centers
- Baselines
- Horizontally in Container
- Vertically in Container

Add 2 Constraints

View as: iPhone 7 (w C h R)

Transcript

23:23

100%

Browse Q&A

Add Bookmark

Continue ►

Large W...Indicator < ▲ > LoginVC.swift < ▲ > + × Go to Das

View

Show Alignment Re 169 X Width 37

Arrange Position View

Layout Margins Default

+ Preserve Su

+ Follow Read

Constraints

All This Size Class

Align Center X to: Super

Align Center Y to: Super Equals: -100

Showing 2 of 2

Content Hugging Priority

Horizontal 750

Vertical 750

Content Compression Resist

Activity Indicator feedback on the prog process of unknown

Reveal View Controller...

ChannelVC Scene

LoginVC Scene

LoginVC

Top Layout Guide

Bottom Layout Gui...

View

Stack View

Button

Don't have an a...

Stack View

Username Txt

Constrai...

View

Password Txt

View

Login

Large White Ac...

Constraints

First Responder

Exit

Show segue "toCreate..."

Create AccountVC Scene

Avatar PickerVC Scene

ChatVC Scene

```
// LoginVC.swift
// Smack
//
// Created by Jonny B on 7/14/17.
// Copyright © 2017 Jonny B. All rights reserved.

import UIKit

class LoginVC: UIViewController {

    // Outlets
    @IBOutlet weak var usernameTxt: UITextField!
    @IBOutlet weak var passwordTxt: UITextField!

    override func viewDidLoad() {
        super.viewDidLoad()

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

    @IBAction func closePressed(_
```

Smack < > View > Login < > Log....swift < > LoginVC < > +

Reveal View Controller...

ChannelVC Scene

LoginVC Scene

 LoginVC

 Top Layout Guide

 Bottom Layout Gui...

 View

 Stack View

 Button

 Don't have an a...

 Stack View

 Username Txt

 Constrai...

 View

 Password Txt

 View

 Login

 Spinner

 Constraints

 First Responder

 Exit

 Show segue "toCreate..."

Create AccountVC Scene

Avatar PickerVC Scene

ChatVC Scene

usernameTxt: UITextField!

@IBOutlet weak var

passwordTxt: UITextField!

@IBOutlet weak var spinner:

UIActivityIndicatorView!

override func viewDidLoad() {

 super.viewDidLoad()

 // Do any additional setup

 // after loading the

 // view.

}

 @IBAction func loginPressed(_

 sender: Any) {

 dismiss(animated: true,

 completion: nil)

}

 @IBAction func

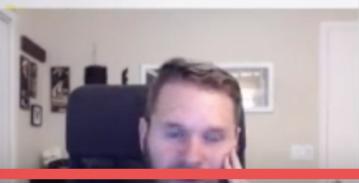
 createAccntBtnPressed(_

 sender: Any) {

 performSegue(withIdentifier:

 TO_CREATE_ACCOUNT,

 sender: nil)



GradientView.swift
RoundedButton.swift
AvatarCell.swift
CircleImage.swift

Controller

ChatVC.swift
ChannelVC.swift
LoginVC.swift M
CreateAccountVC.swift
AvatarPickerVC.swift
ProfileVC.swift

Supporting Files

SWRevealViewController.h
SWRevealViewController.m
Smack-Bridging-Header.h

AppDelegate.swift

Main.storyboard M

Assets.xcassets
LaunchScreen.storyboard
Info.plist

```
38         }
39     })
40 }
41 }
42 }
43
44 @IBAction func closePressed(_ sender: Any) {
45     dismiss(animated: true, completion: nil)
46 }
47
48 @IBAction func createAccntBtnPressed(_ sender: Any) {
49     performSegue(withIdentifier: TO_CREATE_ACCOUNT, sender: nil)
50 }
51
52 func setUpView() {
53     spinner.isHidden = true
54     usernameTxt.attributedPlaceholder = NSAttributedString(string: "username", attributes:
55         [NSAttributedStringKey.foregroundColor: smackPurplePlaceholder])
56     passwordTxt.attributedPlaceholder = NSAttributedString(string: "password", attributes:
57         [NSAttributedStringKey.foregroundColor: smackPurplePlaceholder])
58 }
```

Code reused from create account vc



GradientView.swift
RoundedButton.swift
AvatarCell.swift
CircleImage.swift

Controller

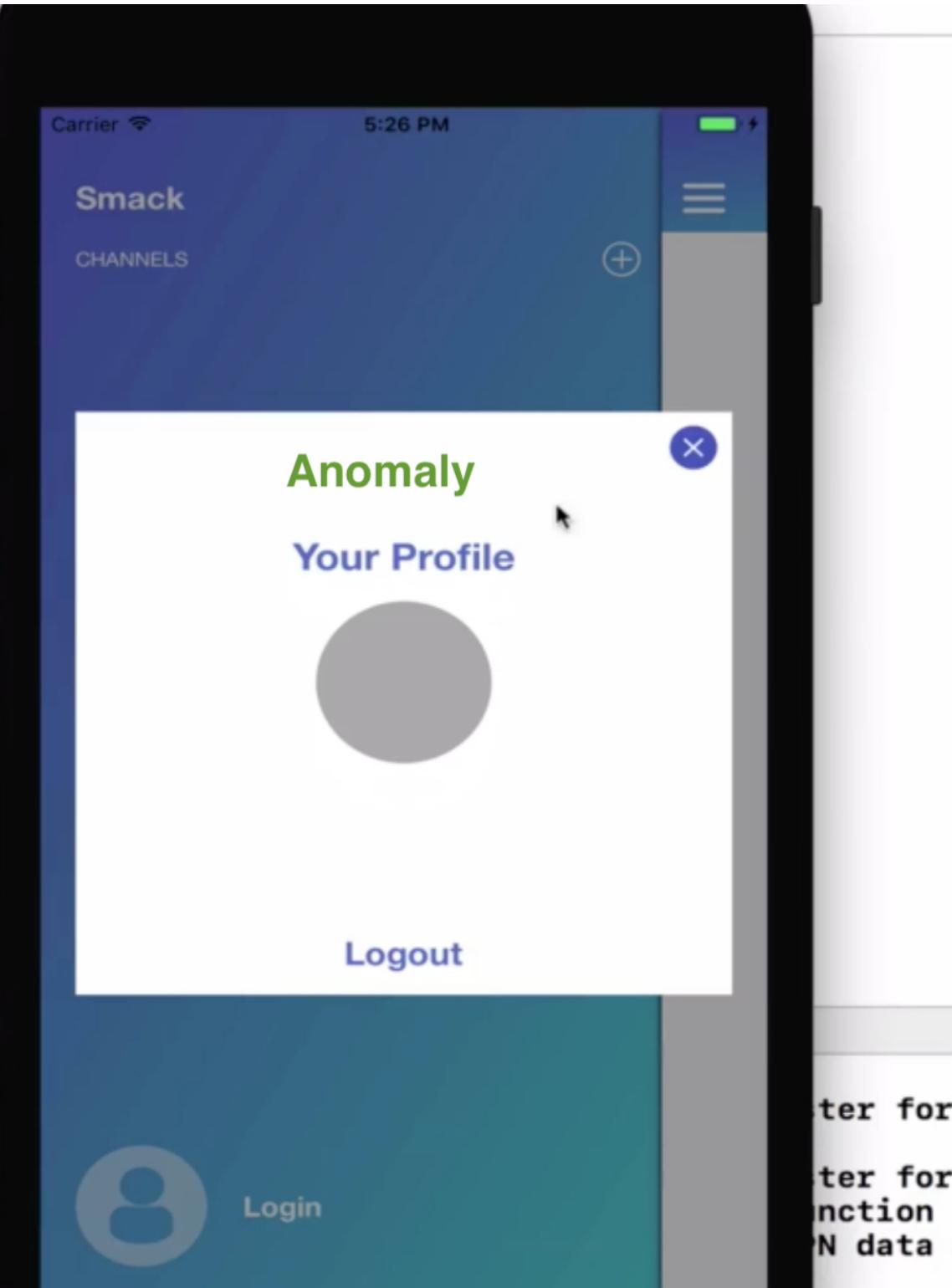
- ChatVC.swift
- ChannelVC.swift
- LoginVC.swift**
- CreateAccountVC.swift
- AvatarPickerVC.swift
- ProfileVC.swift

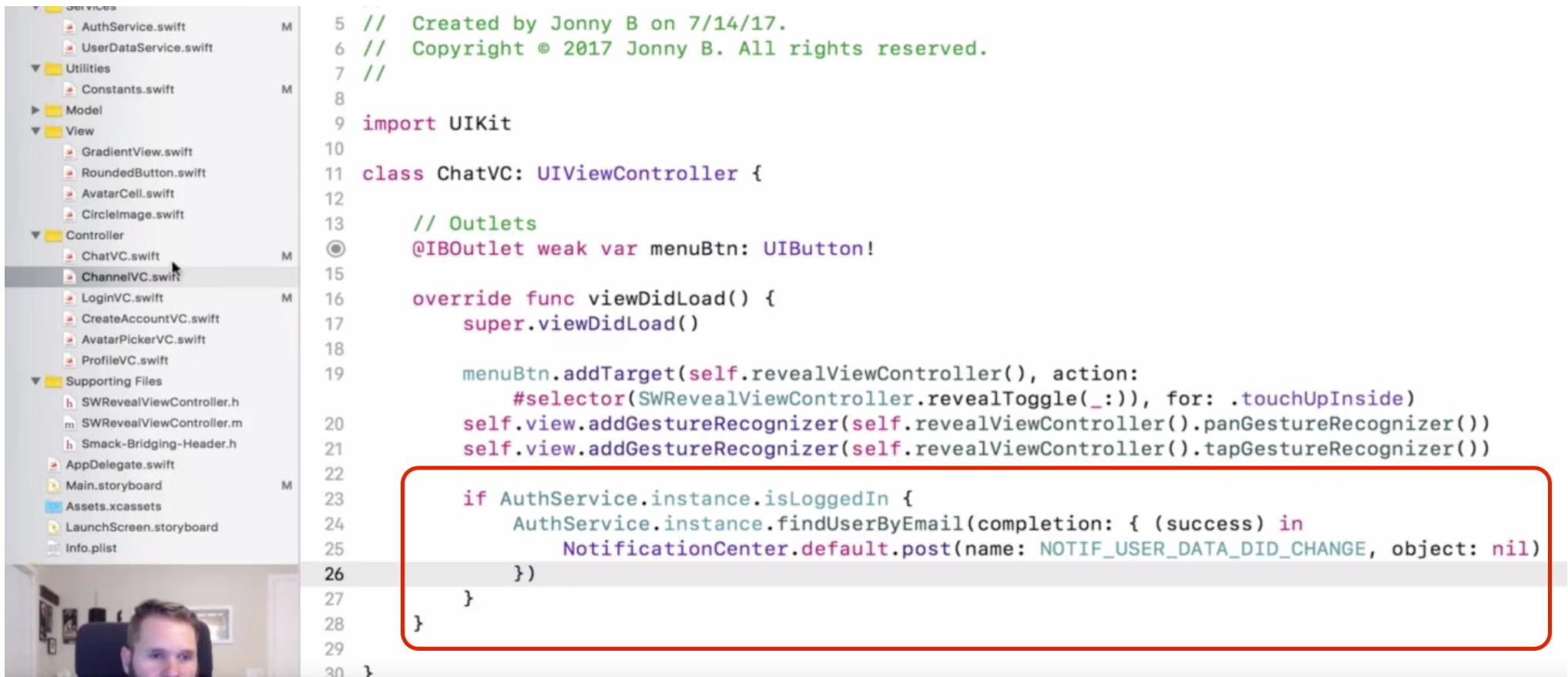
Supporting Files

- SWRevealViewController.h
- SWRevealViewController.m
- Smack-Bridging-Header.h
- AppDelegate.swift
- Main.storyboard
- Assets.xcassets
- LaunchScreen.storyboard
- Info.plist

```
18     override func viewDidLoad() {
19         super.viewDidLoad()
20         setUpView()
21     }
22
23     @IBAction func loginPressed(_ sender: Any) {
24         spinner.isHidden = false
25         spinner.startAnimating()
26
27         guard let email = usernameTxt.text , usernameTxt.text != "" else { return }
28         guard let pass = passwordTxt.text , passwordTxt.text != "" else { return }
29
30         AuthService.instance.loginUser(email: email, password: pass) { (success) in
31             if success {
32                 AuthService.instance.findUserByEmail(completion: { (success) in
33                     if success {
34                         NotificationCenter.default.post(name: NOTIF_USER_DATA_DID_CHANGE, object:
35                                         nil)
36                         self.spinner.isHidden = true
37                         self.spinner.stopAnimating()
38                         self.dismiss(animated: true, completion: nil)
39                     }
40                 })
41             }
42         }
43     }
44 }
```

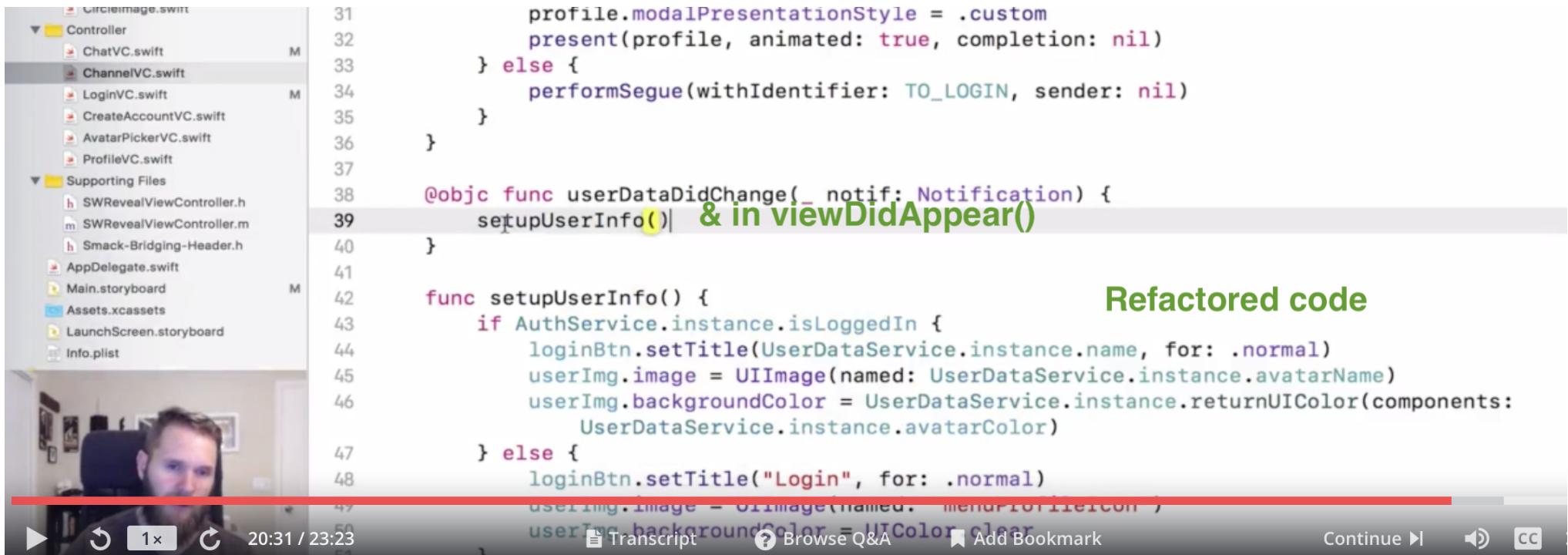
```
Smack < > Smack > Smack > Controller  
1 //  
2 // LoginVC.swift  
3 // Smack  
4 //  
5 // Created by Jonny  
6 // Copyright © 2017  
7 //  
8  
9 import UIKit  
10  
11 class LoginVC: UIViewController {  
12  
13     // Outlets  
14     @IBOutlet weak var emailField: UITextField!  
15     @IBOutlet weak var passwordField: UITextField!  
16     @IBOutlet weak var spinner: UIActivityIndicatorView!  
17  
18     override func viewDidLoad() {  
19         super.viewDidLoad()  
20         setUpView()  
21     }  
22  
23     @IBAction func loginTapped(_ sender: Any) {  
24         spinner.isHidden = false  
25         spinner.startAnimating()  
  
2017-07-18 17:25:46.694320  
network_config_register_b  
2017-07-18 17:25:46.76465  
network_config_register_b  
2017-07-18 17:25:46.95720  
boringssl_context_get_pee
```





The screenshot shows a Xcode interface with a sidebar on the left displaying the project structure. The main area contains Swift code for a `ChatVC` class. A red box highlights a portion of the code starting at line 23.

```
5 // Created by Jonny B on 7/14/17.
6 // Copyright © 2017 Jonny B. All rights reserved.
7 //
8
9 import UIKit
10
11 class ChatVC: UIViewController {
12
13     // Outlets
14     @IBOutlet weak var menuBtn: UIButton!
15
16     override func viewDidLoad() {
17         super.viewDidLoad()
18
19         menuBtn.addTarget(self.revealViewController(), action:
20             #selector(SWRevealViewController.revealToggle(_:)), for: .touchUpInside)
21         self.view.addGestureRecognizer(self.revealViewController().panGestureRecognizer())
22         self.view.addGestureRecognizer(self.revealViewController().tapGestureRecognizer())
23
24         if AuthService.instance.isLoggedIn {
25             AuthService.instance.findUserByEmail(completion: { (success) in
26                 NotificationCenter.default.post(name: NOTIF_USER_DATA_DID_CHANGE, object: nil)
27             })
28         }
29     }
30 }
```



A screenshot of a video conference interface. On the left, there is a file tree for a Swift project. The project structure includes a 'Controller' folder containing 'ChatVC.swift', 'ChannelVC.swift', 'LoginVC.swift', 'CreateAccountVC.swift', 'AvatarPickerVC.swift', and 'ProfileVC.swift'. It also includes 'Supporting Files' with 'SWRevealViewController.h', 'SWRevealViewController.m', 'Smack-Bridging-Header.h', 'AppDelegate.swift', 'Main.storyboard', 'Assets.xcassets', 'LaunchScreen.storyboard', and 'Info.plist'. A video feed of a man with a beard is visible on the left side of the screen. The main area shows a block of Swift code:

```
31     profile.modalPresentationStyle = .custom
32     present(profile, animated: true, completion: nil)
33 } else {
34     performSegue(withIdentifier: TO_LOGIN, sender: nil)
35 }
36
37
38 @objc func userDataDidChange(_ notif: Notification) {
39     setupUserInfo() & in viewDidAppear()
40 }
41
42 func setupUserInfo() {
43     if AuthService.instance.isLoggedIn {
44         loginBtn.setTitle(UserDataService.instance.name, for: .normal)
45         userImg.image = UIImage(named: UserDataService.instance.avatarName)
46         userImg.backgroundColor = UserDataService.instance.returnUIColor(components:
47             UserDataService.instance.avatarColor)
48     } else {
49         loginBtn.setTitle("Login", for: .normal)
50         userImg.image = UIImage(named: "menuProfileIcon")
51         userImg.backgroundColor = UIColor.clear
52 }
```

The line 'setupUserInfo() & in viewDidAppear()' is highlighted with a yellow background. To the right of the code, the text 'Refactored code' is displayed.