

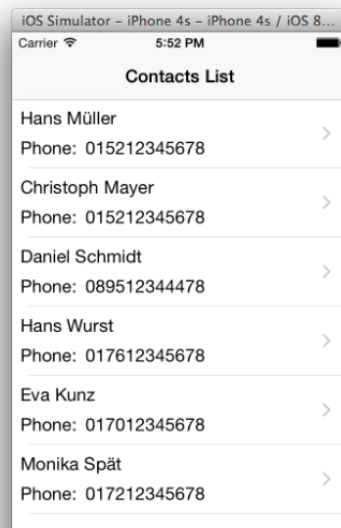
iOS Praktikum

Aufgabe 15a

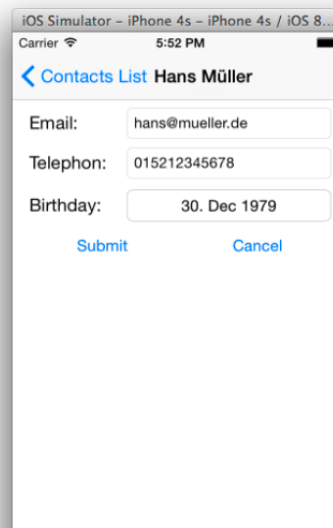
swift

Aufgabenstellung

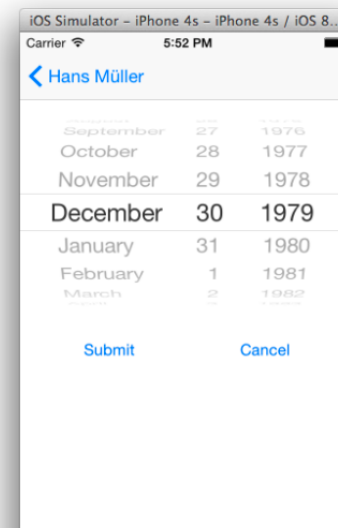
- Sie sollen mit Hilfe einer Table View eine iOS-App entwickeln, mit der man eine Liste bestehender Kontakte anzeigen und deren Einträge modifizieren kann.



(a) Tabellenansicht der Kontakte



(b) Detailansicht der Kontaktdaten



(c) Detailansicht des Geburtsdatums

Model – ContactStore

```
...  
  
import UIKit  
  
class ContactStore {  
  
    //    MARK: Properties  
  
    var name: String  
    var preName: String  
    var email: String  
    var phone: String  
    var birthday: String  
  
    //    MARK: Initialization  
  
    init(name: String, preName: String, email: String, phone: String, birthday: String){  
        self.name = name  
        self.preName = preName  
        self.email = email  
        self.phone = phone  
        self.birthday = birthday  
    }  
  
}
```

TableViewCell

```
import UIKit

class ContactTableViewCell: UITableViewCell {

    // MARK: Properties

    @IBOutlet weak var preNameLabel: UILabel!
    @IBOutlet weak var nameLabel: UILabel!
    @IBOutlet weak var phoneLabel: UILabel!
    @IBOutlet weak var telephoneLabel: UILabel!

    override func awakeFromNib() {
        super.awakeFromNib()
    }

    override func setSelected(_ selected: Bool, animated: Bool) {
        super.setSelected(selected, animated: animated)
    }

}
```

TableViewController - setup

```
import UIKit

class ContactTableViewController: UITableViewController {

    // MARK: Properties

    var contacts = [ContactStore]()

    override func viewDidLoad() {
        super.viewDidLoad()

        // Load the sample data.
        loadSampleContacts()
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
    }

    // MARK: - Table view data source

    override func numberOfSections(in tableView: UITableView) -> Int {
        return 1
    }

    // Number of rows
    override func tableView(_ tableView: UITableView, numberOfRowsInSection section: Int) -> Int {
        return contacts.count
    }

    // Pass the data to the specific cells
    override func tableView(_ tableView: UITableView, cellForRowAt indexPath: IndexPath) -> UITableViewCell {
        let cellIdentifier = "ContactTableViewCell"
        guard let cell = tableView.dequeueReusableCell(withIdentifier: cellIdentifier, for: indexPath) as? ContactTableViewCell else {
            fatalError("The dequeued cell is not an instance of ContactTableViewCell")}

        let contact = contacts[indexPath.row]

        cell.nameLabel.text = contact.name
        cell.preNameLabel.text = contact.preName
        cell.telephoneLabel.text = contact.phone

        return cell
    }
}
```

TableViewController – pass the selected contact to detailView

```
// MARK: – Navigation

// To pass the "selected" contact to the detailView
override func prepare(for segue: UIStoryboardSegue, sender: Any?) {

    guard let contactDetailViewController = segue.destination as? ContactViewController
        else {
            fatalError("Unexpected destination: \(segue.destination)")
        }
    guard let selectedContactCell = sender as? ContactTableViewCell
        else {
            fatalError("Unexpected sender: \(sender)")
        }

    guard let indexPath = tableView.indexPath(for: selectedContactCell)
        else {
            fatalError("The selected cell is not being displayed by the table")
        }

    let selectedContact = contacts[indexPath.row]
    contactDetailViewController.contact = selectedContact
}
```

TableViewController – sample contacts, update contact

```
// MARK: Private Methods

private func loadSampleContacts(){

    let contact1 = ContactStore(name: "Franz", preName: "Simone", email: "simone@franz.de", phone: "017298765432", birthday: "30. July 1989")

    let contact2 = ContactStore(name: "Mayer", preName: "Christoph", email: "christoph@mayer.de", phone: "015287654321", birthday: "30. January 1980")

    let contact3 = ContactStore(name: "Mueller", preName: "Hans", email: "hans@mueller.de", phone: "015212345678", birthday: "30. December 1979")

    let contact4 = ContactStore(name: "Kunz", preName: "Eva", email: "eva@kunz.de", phone: "017212345678", birthday: "30. Avril 2000")

    let contact5 = ContactStore(name: "Schmidt", preName: "Daniel", email: "daniel@schmidt.de", phone: "015298765432", birthday: "30. February 1960")

    let contact6 = ContactStore(name: "Siebert", preName: "Ramon", email: "ramon@siebert.de", phone: "017223456789", birthday: "30. June 2001")

    let contact7 = ContactStore(name: "Spaet", preName: "Monika", email: "monika@spaet.de", phone: "017287654321", birthday: "30. May 1975")

    let contact8 = ContactStore(name: "Telau", preName: "Robert", email: "robert@telau.de", phone: "015112345678", birthday: "30. August 1979")

    let contact9 = ContactStore(name: "Wurst", preName: "Hans", email: "hans@wurst.de", phone: "015223456789", birthday: "30. March 1990")

    let contact10 = ContactStore(name: "Zacharia", preName: "Regina", email: "regina@zacharia.de", phone: "015198765432", birthday: "30. September 2006")

    contacts += [contact1, contact2, contact3, contact4, contact5, contact6, contact7, contact8, contact9, contact10]
}

// MARK: Actions
@IBAction func unwind(sender: UIStoryboardSegue, towardsViewController subsequentVC: ContactTableViewController) {
    if let sourceViewController = sender.source as? ContactViewController, let contact = sourceViewController.contact{

        // Contact update

        if let selectedIndexPath = tableView.indexPathForSelectedRow{
            // Update an existing Contact.
            contacts[selectedIndexPath.row] = contact
            tableView.reloadRows(at: [selectedIndexPath], with: .none)
        }
    }
}
```

ContactViewController - setup

```
import UIKit
import os.log

class ContactViewController: UIViewController, UITextFieldDelegate, UINavigationControllerDelegate {

    // MARK: Properties

    @IBOutlet weak var emailTextField: UITextField!
    @IBOutlet weak var telephoneTextField: UITextField!
    @IBOutlet weak var birthdayButton: UIButton!
    @IBOutlet weak var submitDetails: UIButton!
    @IBOutlet weak var cancelDetails: UIButton!

    var contact: ContactStore?

    override func viewDidLoad() {
        super.viewDidLoad()

        // Handle the text field's user input through delegate callbacks.
        emailTextField.delegate = self
        telephoneTextField.delegate = self

        // Set up views with an existing Contact.
        if let contact = contact {
            navigationItem.title = contact.preName + " " + contact.name
            emailTextField.text = contact.email
            telephoneTextField.text = contact.phone
            birthdayButton.setTitle(contact.birthday, for: UIControlState.normal)
        }
    }
}
```

ContactViewController – update textField

```
// MARK: UITextFieldDelegate

func textFieldShouldReturn(_ textField: UITextField) -> Bool {
//    Hide the keyboard.
    textField.resignFirstResponder()
    return true
}

func textFieldDidEndEditing(_ textField: UITextField) {
    if(textField == emailTextField){
        emailTextField.text = textField.text
    }

    else if(textField == telephoneTextField){
        telephoneTextField.text = textField.text
    }
}
```

ContactViewController – pass data

```
// MARK: Navigation

// This method lets you configure a view controller before it's presented
override func prepare(for segue: UIStoryboardSegue, sender: Any?){
    super.prepare(for: segue, sender: sender)

    // Pass the birthday to the DatePicker
    guard let contactDateViewController = segue.destination as? DateViewController
    else {
        fatalError("Unexpected destination: \(segue.destination)")
    }
    contactDateViewController.contact = ContactStore(name: (contact?.name)!,
    preName: (contact?.preName)!, email: (contact?.email)!, phone: (contact?.phone)!, birthday: (contact?.birthday)!)

    // Configure the destination view controller only when the submit button is pressed.
    if let sender = sender as? UIButton, sender === submitDetails {

        let email = emailTextField.text
        let phone = telephoneTextField.text
        let birthday = birthdayButton.titleLabel!.text

    // Set the new contact Values to be passed to ContactTableViewController after the unwind segue.
    contact = ContactStore(name: (contact?.name)!, preName: (contact?.preName)!,
        email: (email)!, phone: (phone)!, birthday: (birthday)!)
    }

}
```

ContactViewController

– update birthday

```
// MARK: Actions
@IBAction func unwind(sender: UIStoryboardSegue, towardsViewController subsequentVC: ContactViewController) {
    if let sourceViewController = sender.source as? DateViewController, let birthday = sourceViewController.birthdayPicker{

//        Birthday update
        let dateFormatter = DateFormatter()
        dateFormatter.dateFormat = "dd. MMMM yyyy"
        let selectedDate = dateFormatter.string(from: birthday.date)
        birthdayButton.setTitle(selectedDate, for: UIControlState.normal)
    }
}
```

DateViewController - setup

```
import UIKit

class DateViewController: UIViewController{

    // MARK: Properties

    @IBOutlet weak var birthdayPicker: UIDatePicker!
    @IBOutlet weak var submitBirthday: UIButton!
    @IBOutlet weak var cancelBirthday: UIButton!

    var contact: ContactStore?

    override func viewDidLoad() {
        super.viewDidLoad()

    // Set the birthdayPicker

        if let contact = contact {

            // Initialize Date string
            let dateStr = contact.birthday

            // Set date format
            let dateFmt = DateFormatter()
            dateFmt.dateFormat = "dd. MMMM yyyy"

            // Get NSDate for the given string
            let date = dateFmt.date(from: dateStr)
            birthdayPicker.setDate(date!, animated: true)
        }
    }
```

DateViewController – send birthday

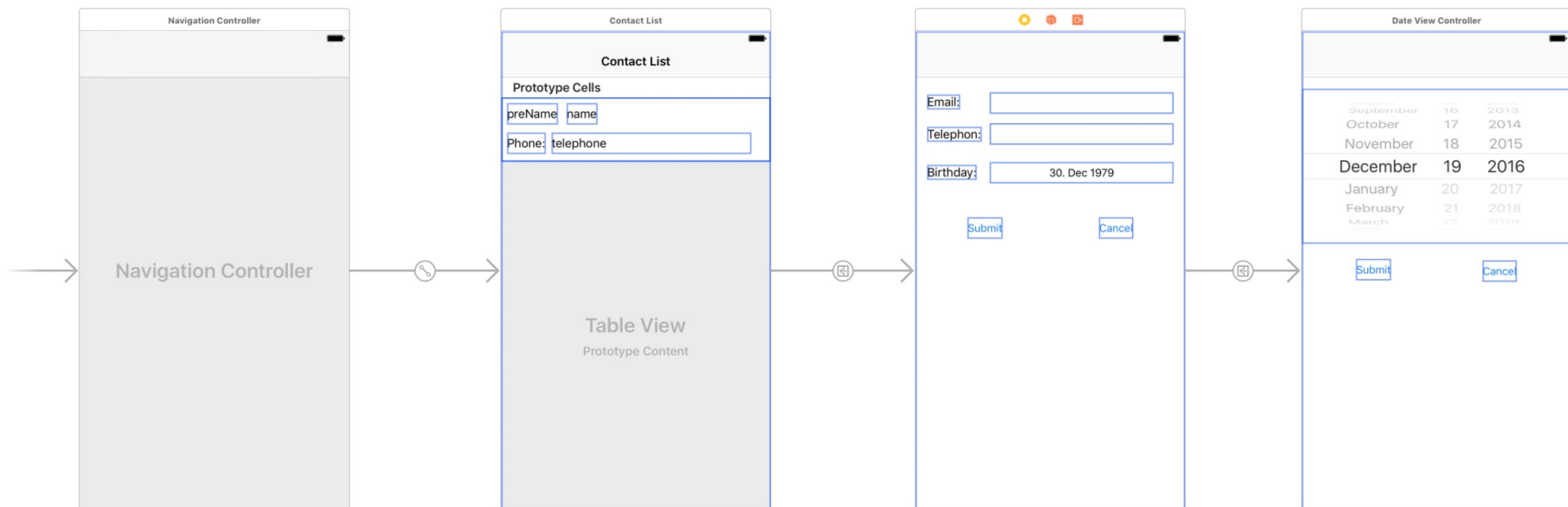
```
// MARK: – Navigation

// configure view controller before it's presented
override func prepare(for segue: UIStoryboardSegue, sender: Any?) {
    super.prepare(for: segue, sender: sender)

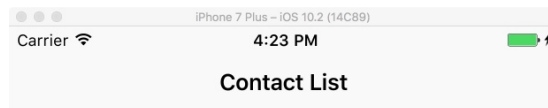
    //      configure destination view controller only when submit button is pressed.
    if let sender = sender as? UIButton, sender === submitBirthday {

        //      Read date from picker
        birthdayPicker.datePickerMode = UIDatePickerMode.date
    }
}
```

Storyboard



Result



Simone Franz

Phone: 017298765432

Christoph Mayer

Phone: 015287654321

Hans Mueller

Phone: 015212345678

Eva Kunz

Phone: 017212345678

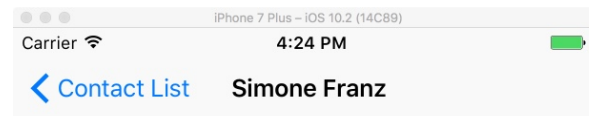
Daniel Schmidt

Phone: 015298765432

Ramon Siebert

Phone: 017223456789

Monika Spaet



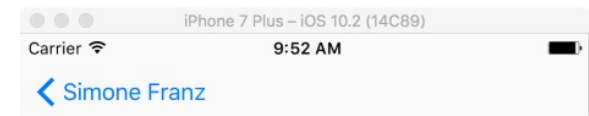
Email:

Telephon:

Birthday: 30. July 1989

[Submit](#)

[Cancel](#)



April	27	1986
May	28	1987
June	29	1988
July	30	1989
August	31	1990
September	1	1991
October	2	1992

[Submit](#)

[Cancel](#)