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FOS mini project

SHADE : scheduler app

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Scheduler App: Details & Features

Key Features

- **Smart Task Management:** Add, complete, and delete tasks with a single tap
- **Time-Based Organization:** Categorize tasks by morning- noon, noon-evening, and evening-night
- **Weekly View:** Seamless navigation between weekdays
- **Instant Task Status:** Visual indicators show completion status at a glance
- **Gesture Controls:** Swipe back to home from any screen for quick navigation
- **Secure Account System:** Protected personal schedule with login/signup
- **Intuitive Timeline:** Visual representation of your day broken into logical time blocks
- **Quick Navigation:** Connected screens via navigation controller
- **Progress Tracking:** See your daily and weekly task completion rates
- **One-Touch Completion:** Mark tasks as done with a simple tap
- **Clean Task Removal:** Delete completed or unnecessary tasks instantly
- **Real-Time Updates:** See your schedule changes reflected immediately
- **User-Friendly Interface:** Clean design with minimal learning curve
- **Efficient Day Planning:** Organize your day in meaningful time blocks

User Benefits

- Organize your day with minimal effort
- Quickly see what's coming up next
- Celebrate completed tasks with visual feedback
- Seamlessly plan your entire week ahead
- Navigate your schedule with intuitive gestures
- Maintain productivity throughout different parts of your day
- Keep your daily organization simple and effective



Code :

ViewController.swift : Root Home Page

```
import UIKit

class ViewController: UIViewController {

    @IBOutlet weak var floatingImageView1: UIImageView!
    @IBOutlet weak var TITLE: UILabel!
    @IBOutlet weak var floatingImageView2: UIImageView!
    @IBOutlet weak var floatingImageView3: UIImageView!
    override func viewDidLoad() {
        super.viewDidLoad()
        TITLE.textColor = .white
        startFloatingAnimation(imageView: floatingImageView2)
        startFloatingAnimation(imageView: floatingImageView1)
        startFloatingAnimation(imageView: floatingImageView3)
        let backgroundImageView = UIImageView(frame: view.bounds)
        backgroundImageView.image = UIImage(named: "what") // Replace "background" with the
        name of your image in Assets.xcassets
        backgroundImageView.contentMode = .scaleAspectFill // Or other content modes like
        .scaleToFill, .scaleAspectFit
        view.insertSubview(backgroundImageView, at: 0)

    }
    @IBAction func unwind(segue:UIStoryboardSegue){}
    func startFloatingAnimation(imageView: UIImageView) {
        guard imageView != nil else {
            print("Error: imageView IBOutlet is not connected in the Storyboard!")
            return
        }
        func startFloatingAnimation(imageView: UIImageView) {
            guard imageView != nil else {
                print("Error: imageView IBOutlet is not connected in the Storyboard!")
                return
            }
        }
    }
}
```



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}

```
let horizontalOffset: CGFloat = 5.0  
let verticalOffset: CGFloat = 3.0  
let duration: TimeInterval = 2.0
```

```
        UIView.animate(withDuration: duration, delay: 0, options: [.repeat, .autoreverse],  
animations: {  
    imageView.transform = CGAffineTransform(translationX: horizontalOffset, y:  
verticalOffset)  
}) { _ in  
    UIView.animate(withDuration: duration, delay: 0, options: [.repeat, .autoreverse],  
animations: {  
    imageView.transform = .identity  
})  
}  
}  
}
```

abViewController : Registration page

```
//  
// newViewController.swift  
// shade  
//  
// Created by KJSCE on 08/04/25.  
//
```

```
import UIKit
```

```
class abViewController: UIViewController {
```

```
override func viewDidLoad() {
    super.viewDidLoad()
    let backgroundImageView = UIImageView(frame: view.bounds)
    backgroundImageView.image = UIImage(named: "what") // Replace "background" with the
name of your image in Assets.xcassets
    backgroundImageView.contentMode = .scaleAspectFill // Or other content modes like
.scaleToFill, .scaleAspectFit
    view.insertSubview(backgroundImageView, at: 0)
}
```



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aViewController : Login page

```
//  
// aViewController.swift  
// shade  
  
// Created by Yashraj Parag Ola on 20/04/25.  
  
import UIKit  
  
class aViewController: UIViewController {  
  
    override func viewDidLoad() {  
        super.viewDidLoad()  
  
        let backgroundImageView = UIImageView(frame: view.bounds)  
        backgroundImageView.image = UIImage(named: "background") // Replace "background" with the  
name of your image in Assets.xcassets  
        backgroundImageView.contentMode = .scaleAspectFill // Or other content modes like  
.scaleToFill, .scaleAspectFit  
        view.insertSubview(backgroundImageView, at: 0)  
    }  
  
    /*  
    // MARK: - Navigation  
  
    // In a storyboard-based application, you will often want to do a little preparation before  
navigation  
    override func prepare(for segue: UIStoryboardSegue, sender: Any?) {  
        // Get the new view controller using segue.destination.  
        // Pass the selected object to the new view controller.  
    }  
*/  
}
```



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welcome.swift : shows successful login

```
//  
// loginViewController.swift  
// shade  
  
// Created by Yashraj Parag Ola on 20/04/25.  
  
import UIKit  
  
class welcome: UIViewController {  
  
    override func viewDidLoad() {  
        super.viewDidLoad()  
        let backgroundImageView = UIImageView(frame: view.bounds)  
            backgroundImageView.image = UIImage(named: "wlcm") // Replace "background" with the  
name of your image in Assets.xcassets  
            backgroundImageView.contentMode = .scaleAspectFill // Or other content modes like  
.scaleToFill, .scaleAspectFit  
            view.insertSubview(backgroundImageView, at: 0)  
        // Do any additional setup after loading the view.  
    }  
  
    /*  
    // MARK: - Navigation  
  
    // In a storyboard-based application, you will often want to do a little preparation before  
navigation  
    override func prepare(for segue: UIStoryboardSegue, sender: Any?) {  
        // Get the new view controller using segue.destination.  
        // Pass the selected object to the new view controller.  
    }  
*/  
}
```



abcdViewController : Days of the week page

```
//  
// abcviewController.swift  
// shade  
//  
// Created by Yashraj Parag Ola on 19/04/25.  
  
import UIKit  
  
class abcviewController: UIViewController {  
  
    override func viewDidLoad() {  
        super.viewDidLoad()  
        setupBackground()  
    }  
  
    func setupBackground() {  
        let backgroundImageView = UIImageView(frame: view.bounds)  
        backgroundImageView.image = UIImage(named: "sunset")  
        backgroundImageView.contentMode = .scaleAspectFill  
        view.insertSubview(backgroundImageView, at: 0)  
    }  
  
    @IBAction func mondayButtonTapped(_ sender: UIButton) {  
        performSegue(withIdentifier: "goToTimeSlot", sender: "Monday")  
    }  
  
    @IBAction func tuesdayButtonTapped(_ sender: UIButton) {  
        performSegue(withIdentifier: "goToTimeSlot", sender: "Tuesday")  
    }  
  
    @IBAction func wednesdayButtonTapped(_ sender: UIButton) {  
        performSegue(withIdentifier: "goToTimeSlot", sender: "Wednesday")  
    }  
  
    @IBAction func thursdayButtonTapped(_ sender: UIButton) {  
        performSegue(withIdentifier: "goToTimeSlot", sender: "Thursday")  
    }  
  
    @IBAction func fridayButtonTapped(_ sender: UIButton) {  
        performSegue(withIdentifier: "goToTimeSlot", sender: "Friday")  
    }
```



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```
@IBAction func saturdayButtonTapped(_ sender: UIButton) {
    performSegue(withIdentifier: "goToTimeSlot", sender: "Saturday")
}

@IBAction func sundayButtonTapped(_ sender: UIButton) {
    performSegue(withIdentifier: "goToTimeSlot", sender: "Sunday")
}

override func prepare(for segue: UIStoryboardSegue, sender: Any?) {
    if segue.identifier == "goToTimeSlot",
        let timeSlotVC = segue.destination as? abcViewController,
        let selectedDay = sender as? String {
            timeSlotVC.selectedDay = selectedDay
        }
    }
}
```



abcViewController : slots of the day page

```
//  
// abcViewController.swift  
// shade  
//  
// Created by Yashraj Parag Ola on 19/04/25.  
  
import UIKit  
  
class abcViewController: UIViewController {  
  
    var selectedDay: String?  
  
    override func viewDidLoad() {  
        super.viewDidLoad()  
        setupBackground()  
    }  
  
    func setupBackground() {  
        let backgroundImageView = UIImageView(frame: view.bounds)  
        backgroundImageView.image = UIImage(named: "what2")  
        backgroundImageView.contentMode = .scaleAspectFill  
        view.insertSubview(backgroundImageView, at: 0)  
    }  
  
    @IBAction func morningToNoonButtonTapped(_ sender: UIButton) {  
        navigateToDoList(withTimeSlot: "Morning to Noon")  
    }  
  
    @IBAction func afternoonToEveningButtonTapped(_ sender: UIButton) {  
        navigateToDoList(withTimeSlot: "Afternoon to Evening")  
    }  
  
    @IBAction func eveningToNightButtonTapped(_ sender: UIButton) {  
        navigateToDoList(withTimeSlot: "Evening to Night")  
    }  
  
    func navigateToDoList(withTimeSlot timeSlot: String) {  
        if let day = selectedDay {  
            let dayAndTime = "\(day) - \(timeSlot)"  
            performSegue(withIdentifier: "goToDoList", sender: dayAndTime)  
        }  
    }  
}
```



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```
override func prepare(for segue: UIStoryboardSegue, sender: Any?) {  
    if segue.identifier == "goToTodoList",  
        let todoListVC = segue.destination as? TodoListViewController,  
        let dayAndTime = sender as? String {  
            todoListVC.dayAndTime = dayAndTime  
        }  
    }  
}
```



TodoListViewController : tasks in that slot page

```
// TodoListViewController.swift
import UIKit

class TodoListViewController: UIViewController, UITableViewDelegate, UITableViewDataSource {

    var dayAndTime: String?
    var todoItems: [String] = []
    @IBOutlet weak var todoTableView: UITableView!

    override func viewDidLoad() {
        super.viewDidLoad()
        setupBackground()
        setupTableView()
        setupNavigationBar()

        if let dayAndTime = dayAndTime {
            print("Selected Day and Time in TodoListVC: \(dayAndTime)")
            loadTodoItems(for: dayAndTime)
        }
    }

    func setupBackground() {
        // Set the background image
        if let image = UIImage(named: "daysbg.jpeg") {
            view.backgroundColor = UIColor(patternImage: image)
        } else {
            view.backgroundColor = UIColor(red: 0.95, green: 0.95, blue: 0.95, alpha: 1.0)
            print("Error: Could not load background image!")
        }
    }

    func setupNavigationBar() {
        // Use a smaller, bold, and white font for the title
        let titleLabel = UILabel()
        titleLabel.text = dayAndTime
        titleLabel.font = UIFont.systemFont(ofSize: 16, weight: .bold)
        titleLabel.textColor = .white
        titleLabel.sizeToFit()
        navigationItem.titleView = titleLabel

        navigationItem.rightBarButtonItem = UIBarButtonItem(barButtonSystemItem: .add, target:
self, action: #selector(addTodoItem))
    }
}
```



```
func setupTableView() {
    todoTableView.delegate = self
    todoTableView.dataSource = self
    todoTableView.register(UITableViewCell.self, forCellReuseIdentifier: "todoCell")
    todoTableView.backgroundColor = .clear
    todoTableView.separatorStyle = .none
}

// MARK: - Data Persistence (Using UserDefaults)
var allTodos: [String: [String]] = [:]
var completedItems: [IndexPath: Bool] = [:]

func loadTodos(for key: String) {
    if let savedTodos = UserDefaults.standard.dictionary(forKey: "allTodosData") as? [String: [String]] {
        allTodos = savedTodos
        todos = allTodos[key] ?? []
    } else {
        todos = []
        allTodos = [:]
    }

    if let savedCompleted = UserDefaults.standard.dictionary(forKey: "completedItemsData") as? [String: Bool] {
        completedItems = savedCompleted.reduce(into: [:]) { (result, element) in
            let keyString = element.key
            let components = keyString.components(separatedBy: ",")
            if components.count == 2,
                let section = Int(components[0].trimmingCharacters(in: .whitespacesAndNewlines)),
                let row = Int(components[1].trimmingCharacters(in: .whitespacesAndNewlines)) {
                let indexPath = IndexPath(row: row, section: section)
                result[indexPath] = element.value
            }
        }
    } else {
        completedItems = [:]
    }
    todoTableView.reloadData()
}

func saveTodoItem(_ item: String, for key: String) {
    print("saveTodoItem called with item: \(item), key: \(key)")
    if var existingItems = allTodos[key] {
        existingItems.append(item)
    }
}
```



```
    allTodos[key] = existingItems
} else {
    allTodos[key] = [item]
}
todoItems = allTodos[key] ?? []
UserDefaults.standard.set(allTodos, forKey: "allTodosData")

let completedDict = completedItems.reduce(into: [String: Bool]()) { (result, element) in
    let keyString = "\(element.key.section),\(element.key.row)"
    result[keyString] = element.value
}
UserDefaults.standard.set(completedDict, forKey: "completedItemsData")
}

@objc func addTodoItem() {
    let alertController = UIAlertController(title: "Add New Task", message: nil, preferredStyle: .alert)
    alertController.addTextField { textField in
        textField.placeholder = "Enter task description"
    }
    let addAction = UIAlertAction(title: "Add", style: .default) { [weak self] _ in
        if let textField = alertController.textFields?.first,
            let newItem = textField.text,
            !newItem.isEmpty,
            let currentKey = self?.dayAndTime {
            self?.saveTodoItem(newItem, for: currentKey)
            print("Item saved: \(newItem) for key: \(currentKey ?? "nil")")
            print("Current allTodos dictionary: \(self?.allTodos ?? [:])")
            print("Current todoItems array: \(self?.todoItems ?? [])")
            self?.todoTableView.reloadData()
        }
    }
    let cancelAction = UIAlertAction(title: "Cancel", style: .cancel)
    alertController.addAction(addAction)
    alertController.addAction(cancelAction)
    print("Presenting Alert Controller")
    present(alertController, animated: true)
}

// MARK: - Table View Delegate and Data Source

func tableView(_ tableView: UITableView, numberOfRowsInSection section: Int) -> Int {
    return todoItems.count
}
```



```
func tableView(_ tableView: UITableView, cellForRowAt indexPath: IndexPath) ->
UITableViewCell {
    print("Creating cell for row: \(indexPath.row), todoltems count: \(todoltems.count)")
    let cell = tableView.dequeueReusableCell(withIdentifier: "todoCell", for: indexPath)

    let item = todoltems[indexPath.row]
    let isCompleted = completedItems[indexPath] == true

    // Apply strikethrough if completed
    if isCompleted {
        let attributedString = NSAttributedString(
            string: item,
            attributes: [
                NSAttributedString.Key.strikethroughStyle: NSNumber(value:
NSUnderlineStyle.single.rawValue),
                NSAttributedString.Key.foregroundColor: UIColor.gray //keep color
            ]
        )
        cell.textLabel?.attributedText = attributedString
    } else {
        cell.textLabel?.text = item
        cell.textLabel?.textColor = .white // Ensure text is white
    }

    cell.backgroundColor = .clear // Make cell background clear
    cell.layer.cornerRadius = 8
    cell.layer.masksToBounds = true
    cell.selectionStyle = .none

    // Add a delete button to the cell
    let deleteButton = UIButton(type: .system)
    deleteButton.setImage(UIImage(systemName: "trash"), for: .normal)
    deleteButton.tintColor = .red
    deleteButton.frame = CGRect(x: cell.contentView.bounds.width - 40, y:
(cell.contentView.bounds.height - 30) / 2, width: 30, height: 30)
    deleteButton.autoresizingMask = [.flexibleLeftMargin, .flexibleTopMargin,
.flexibleBottomMargin]
    deleteButton.addTarget(self, action: #selector(deleteButtonTapped(_:event:)), for:
.touchesUpInside)
    cell.contentView.addSubview(deleteButton)

    // Adjust the text label's frame. Use the cell's contentView bounds.
    cell.textLabel?.frame = CGRect(x: cell.contentView.bounds.origin.x + 16,
y: cell.contentView.bounds.origin.y,
width: cell.contentView.bounds.width - 80,
```



```
height: cell.contentView.bounds.height)

return cell
}

@objc func deleteButtonTapped(_ sender: UIButton, event: UIEvent) {
    if let touch = event.touches(for: sender)?.first,
        let cell = touch.view?.superview?.superview as? UITableViewCell,
        let indexPath = todoTableView.indexPath(for: cell),
        let currentKey = dayAndTime {

        todos.remove(at: indexPath.row)
        allTodos[currentKey]?.remove(at: indexPath.row)
        if allTodos[currentKey]?.isEmpty == true {
            allTodos.removeValue(forKey: currentKey)
        }
        completedItems.removeValue(forKey: indexPath)

        UserDefaults.standard.set(allTodos, forKey: "allTodosData")
        let completedDict = completedItems.reduce(into: [String: Bool]()) { (result, element) in
            let keyString = "\((element.key.section)),\((element.key.row))"
            result[keyString] = element.value
        }
        UserDefaults.standard.set(completedDict, forKey: "completedItemsData")

        todoTableView.deleteRows(at: [indexPath], with: .fade)
    }
}

func tableView(_ tableView: UITableView, didSelectRowAt indexPath: IndexPath) {
    completedItems[indexPath] = !(completedItems[indexPath] == true)

    let completedDict = completedItems.reduce(into: [String: Bool]()) { (result, element) in
        let keyString = "\((element.key.section)),\((element.key.row))"
        result[keyString] = element.value
    }
    UserDefaults.standard.set(completedDict, forKey: "completedItemsData")

    tableView.reloadRows(at: [indexPath], with: .automatic)
}

func tableView(_ tableView: UITableView, heightForRowAt indexPath: IndexPath) -> CGFloat {
    return 50
}
}
```



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Storyboard :





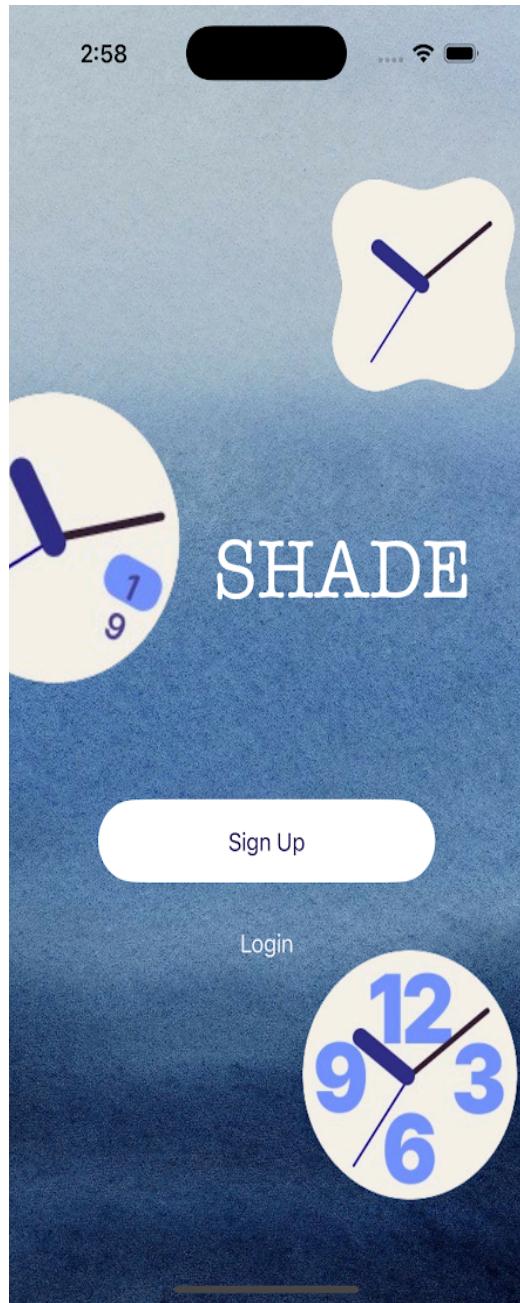
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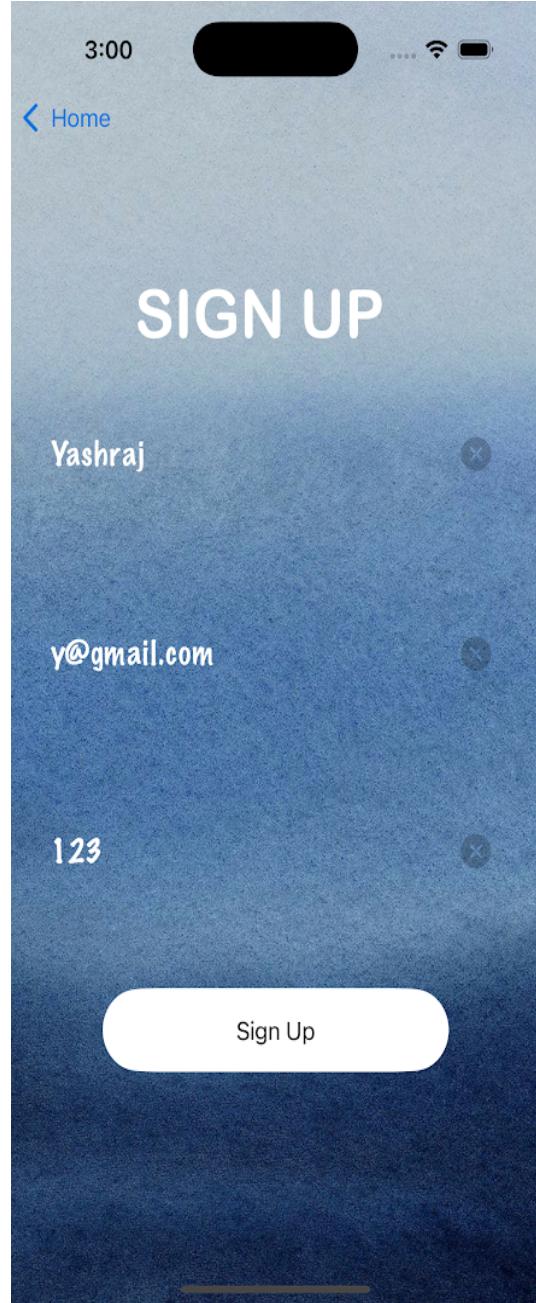


Simulator :

1. Home Page :



2. Clicking on sign up option :



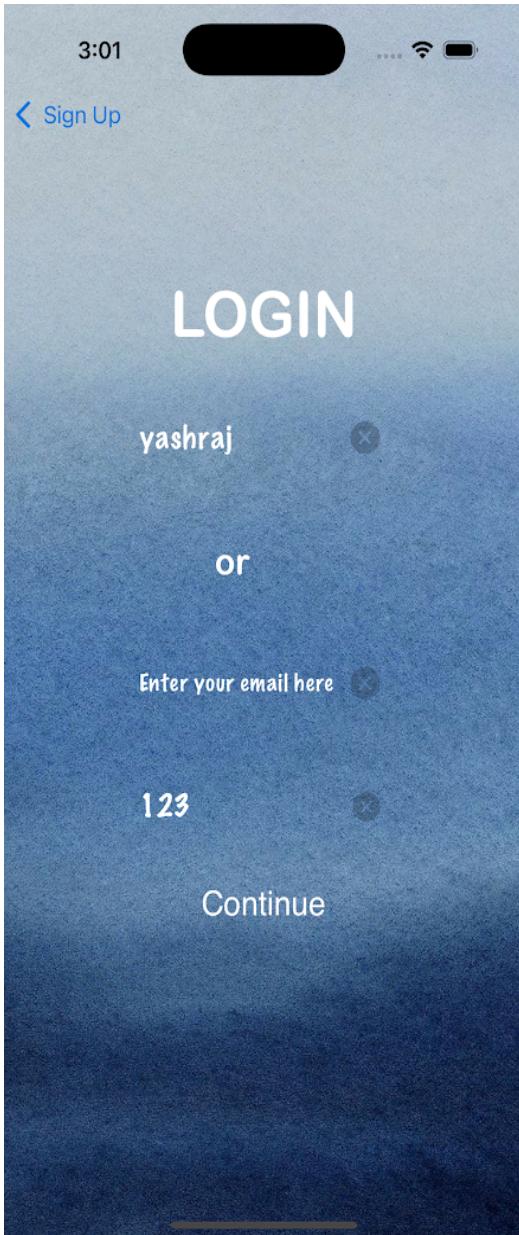


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3. On clicking on Sign Up button :



4. On clicking on continue button :



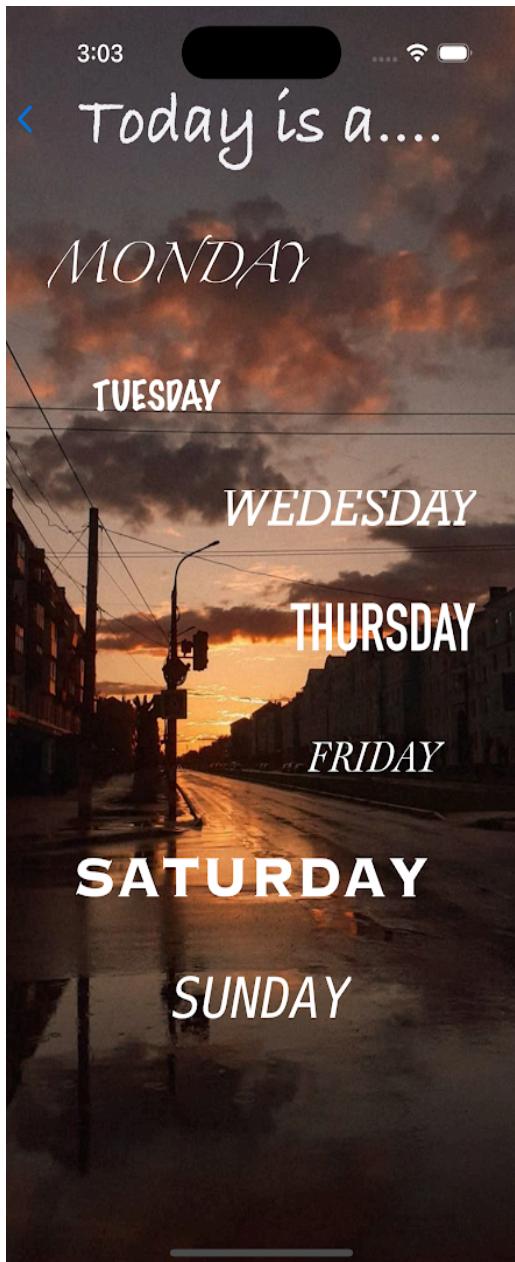


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5. On swiping right :



6. On clicking “Monday” button :





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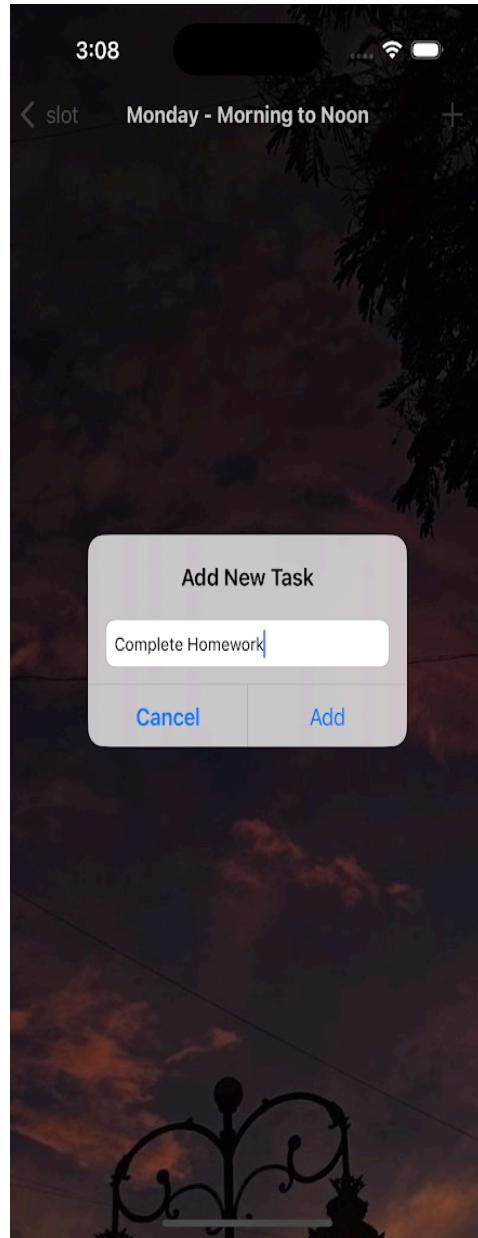
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7.On clicking on button “Morning-Noon” slot :



8.On clicking on add task “+” :



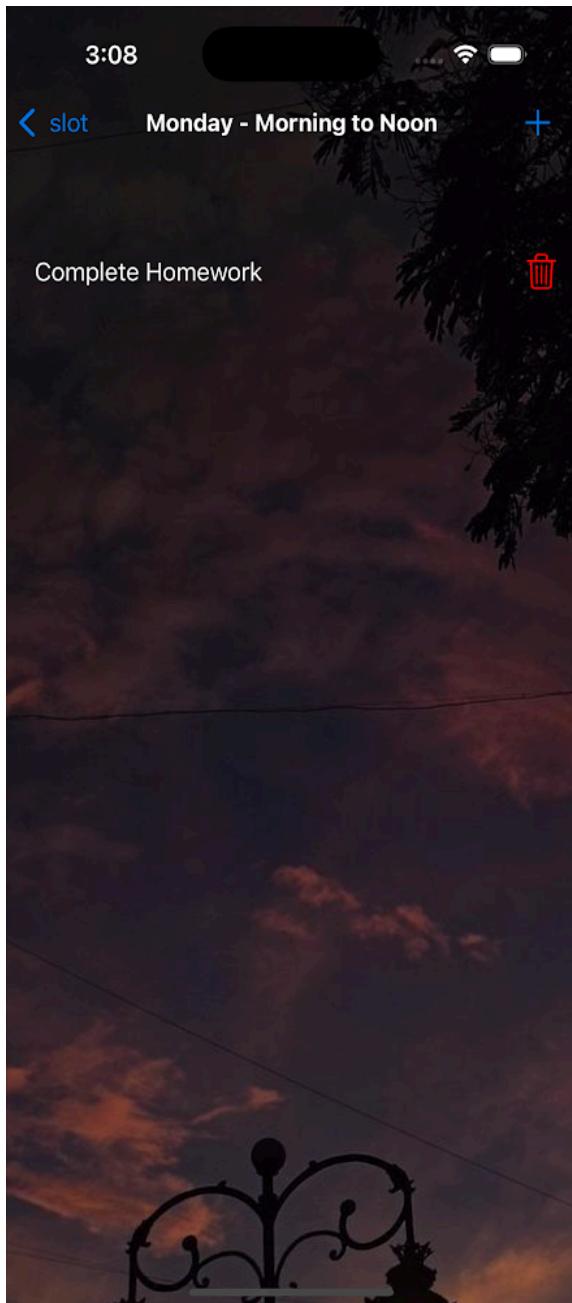


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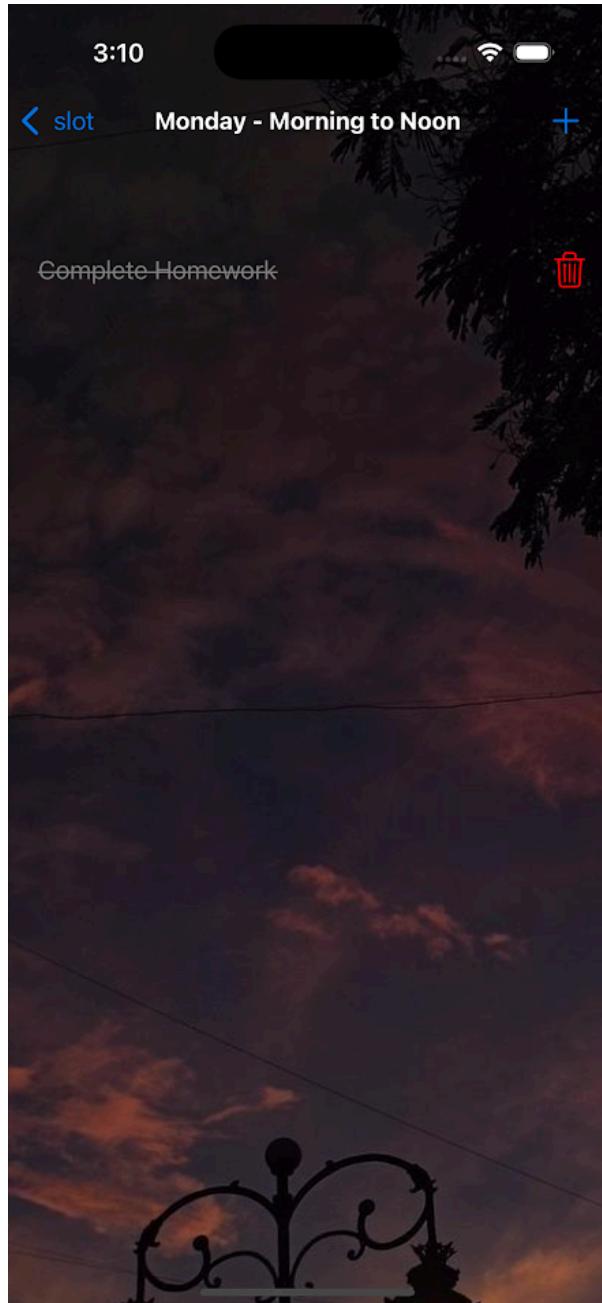
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9.On clicking on “Add” button :



10.To mark task as completed-
simply click on the task :





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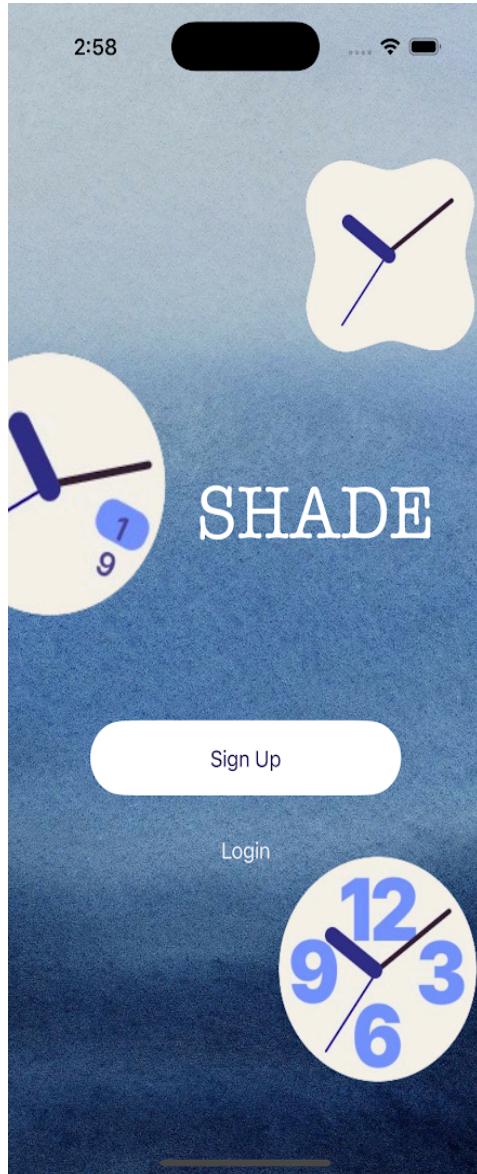
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11. To delete the task -
click on the 'bin' button



12. To go back to home
screen- swipe left





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You can navigate between the pages using back button : (for eg)

