

Assignment 4

Instructions and Grading Criteria

- This is an **individual** assessment. Please review the college's **Academic Integrity Policy** to ensure that you are completing your work in an academically honest manner.
- Your application will be tested using an iPhone 14. It is your responsibility to ensure that your application runs properly on this simulator.
- In addition to the required functionality, learners are expected to use the coding conventions demonstrated in class, meaningful variable naming, and clearly organized code. Comments are helpful but not required.
- This assignment is due on **6th April 2023**. Late submissions will not be accepted.

Submission Checklist

For your submission to be graded, provide a **zip** file of your project, and a **screen recording** demonstrating the functionality you implemented.

1. Create a zip file of your project

- Name the zip file **A4_firstname_lastname.zip**. **.7zip or .rar files will not be accepted.**

3. Creating Your Screen Recording

- In the screen recording, demonstrate the app running in the console, and show the relevant output.
- Max 7 mins (per recording).

3. In the assignment:

1. Upload your screen recording to **Microsoft OneDrive** and ensure that the link is set to: "Anyone with the link can view". Paste a link to the recording in the **submission comments**.
2. Submit your zip file containing the project(s).

Academic Integrity

- This is an individual assessment.
- Permitted activities: Usage of Internet to search for syntax only; usage of course materials
- Not permitted:
 - Communication with others (both inside and outside the class)
 - Discussion of solution or approaches with others; sharing/using a "reference" from someone
 - Searching the internet for full or partial solutions
 - Sharing of resources, including links, computers, accounts

Problem Description

Create two apps:

1. Notes App
2. Tax Filing Management App

1. Notes App (Firebase):

You are hired as an iOS developer to create a Notes Application that holds its data in cloud (Firebase). Here are the requirements:

Screens:

- Registration Screen
- Login Screen
- Home Screen
- Settings Screen

Registration Screen:

- Register with **Name**, **Email ID** and **Password**.

Login Screen:

- Login with Email ID and Password.

Home Screen:

- List all the notes of the logged-in user
- Logged In user should only see their own notes. Do not show notes of other users.
- Provide functionality to:
 - o Add a new note.
 - o Modify an existing note.
 - o Delete an existing note.
- You can create sub-screens to support the above-mentioned functionality.

Settings Screen:

- Display user's name.
- Provide functionality to:
 - o Edit user's name.
 - o Logout.

Marks Weightage:

- | | |
|---|----------------|
| - Firebase setup with rules: | 1 mark |
| - Registration Screen (with functionality): | 1 mark |
| - Login Screen (with functionality): | 1 mark |
| - Home Screen(s) (with functionality): | 3 marks |
| - Settings Screen (with functionality): | 1 mark |
| - Total: | 7 marks |

2. Tax Filing Management App:

You are hired as an iOS developer to create a Tax Filing Management App. Here are the details of potential customers who are interested in getting their tax filed at your firm:

- <https://jsonplaceholder.typicode.com/users>

Screens:

- Home Screen
- Customer Detail Screen

Home Screen:

- Create appropriate data model & fetch all the customers from the API endpoint.
- Persist/Save all these potential customers in Core Data.
- Fetch all the customers from Core Data and list them on the Home Screen using a Table View with custom cells showing actionable information about them:
 - o Name
 - o Phone
 - o City
 - o Company Name
 - o Process Status
- The admin will use this information to approach the customers and get them onboarded for the tax filing process.
- Process Status types:
 - o AWAITED – when the admin is yet to get a confirmation from the customer.
 - o COMPLETED – when the admin has completed the process for the customer.
 - o DENIED – when the customer has denied availing the firm's services.
- All potential customers will have AWAITED status in the beginning.
- Tapping on a row in the Table View should take the admin to the Customer Detail Screen where they should be able to change the process status for that customer.
- The background color of a table view row should be based on the process status and should change when the process status changes:
 - o AWAITED – Yellow tone.
 - o COMPLETED – Green tone.
 - o DENIED – RED tone.
- In some cases, the admin finds out that a particular customer information is fake. Provide them the option so that they can swipe-to-delete a customer. Ask for a confirmation from the admin using Alert Controller before deleting the data to avoid a potential mistake. Updated data should persist in Core Data.

Customer Detail Screen:

- Show all the details of the customer.
- Admin should be able to modify the Phone number and process status of a customer from this screen.
- The modification must persist using Core Data and should reflect on the Home Screen.
- At any time, the admin should be able to go back to the Home Screen using the Back button on the Navigation bar.

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Marks Weightage:

- API Fetch: 1 mark
- Save/Fetch to/from Core Data: 2 marks
- Data modification in Core Data: 2 marks
- Delete customer after Alert: 1 mark
- UI & UX: 1 mark
- MVC pattern: 1 mark
- **Total:** 8 marks

- 1. Notes App (Firebase):** 7 marks
- 2. Tax Filing Management App:** 8 marks
- Total:** 15 marks

END OF ASSESSMENT