Project #4 - SwiftUI

Project: SpaceX Fan Application
App Name   : "SpaceX Fan"
Build System : Xcode

Create an iOS application that;
1. Has three tabs + Bonus Tab
   - Listing all SpaceX rockets
   - Listing favourite rockets
   - Listing upcoming launches
2. First tab: SpaceX Rockets
   - List all SpaceX rockets
   - Each rocket card in the list must have favourite button
   - Previous favourite state should be stored (user selected the rocket as favorite or not)
   - Each item must have a thumbnail of the rocket (if rocket has images)
   - Clicking an item will launch the rocket detail page
3. Rocket detail page: Detail of Selected Rocket
   - Show information of the rocket
   - Show rocket images in a slidable gallery
   - Show the clickable favourite button with its previous state (user selected the rocket as favourite or not)
4. Second tab: Favourite Rockets
   - List favourite rockets of the user
   - Each item must have unfavourite button
   - Clicking an item will launch the rocket detail page
   - This tab should be entered via Fingerprint or Firebase Email/Password Authentication
        a.   Touch ID / Face ID hint: https://developer.apple.com/documentation/localauthentication/logging_a_user_into_your_app_with_face_id_or_touch_id
        b.   Firebase Email Authentication hint: https://firebase.google.com/docs/auth
     Note: Please create an account to test
     Email: vestelTest@mailinator.com
     Password:1234.Abc
5. Third Tab: Upcoming Launches
   - List upcoming launches
   - Clicking an item will open detail page of the upcoming launch
6. Bonus Tab: SpaceX Crew
   - List SpaceX crew members
   - Add search bar on top of page to search and list crew members with Name or Surname
   - When you click rocket details on crew detail page, item will open rocket detail page
7. Please use following Zeplin link, username and password for UI design:
   - iOS – SpaceX: https://zpl.io/2yMDRLy
   - User:"vstl-outsource-test@mailinator.com"
   - Password:"NevAQT6hsDig7$Q"
8. The application should know its state when the user pushes it in the background. For example,
   - I opened a rocket details in the "SpaceX Fan" application

- I received a Whatsapp message and opened Whatsapp message
- I then returned to "SpaceX Fan", the state should be the same as when I left "SpaceX Fan".

9. (BONUS) Create a cloud service on any cloud service provider (Amazon, DigitalOcean, Google, Firebase etc.) free services provided are enough to handle. Create a primitive user login and dummy user database on cloud. Keep favourite rockets of dummy users on the cloud and make appropriate changes on mobile application.

10. (BONUS) Upload Membership Agreement and Privacy Policy documents to Firebase Storage and use from here.

11. (BONUS) Use Firebase Remote Config to remote on/off Touch ID / Face ID Authentication to get Favourite Rockets.

- **Some keywords:** SwiftUI, Declarative programming, Swift 6, Swift Package Manager (SPM), State Management, ObservableObject, EnvironmentObject, NavigationStack, SwiftData, CocoaPods, JSON, Location Manager, Alamofire, Realm, Fingerprint, Cloud
- **UX/UI:** Follow "https://zpl.io/2yMDRLy" for UI data
- **SpaceX API:** https://github.com/r-spacex/SpaceX-API

Actions

1. Select one of the projects above.
2. Project Duration: **1 weeks (10-20 hours of work)**
3. Put your app to the **GitHub and name your project as:**
   "NameSurnameAndroidSpaceXFan"
4. Add your app to Google Firebase Crashlytics and add some custom App Events to track
5. Use SwiftUI

Suggestions

1. Divide the project into pieces
2. Define manageable components and plan
3. Create a README.txt which includes your plan, commit it to GitHub
4. Create a private repo and only give permission to "huseyinyapici" & **karasahinemre**" for evaluation.
5. Commit Regularly Piece-by-Piece. Commit each completed module or feature separately to the GitHub
6. Double check that your code is fully committed. If the pull request fails from the Vestel side, this will be treated as a penalty and your score will be decreased
7. Show your work, do not copy/paste any others effort
8. Follow Google Swift Code style: https://google.github.io/swift/ for consistent and readable code
9. Make a good presentation about your project's key points

Evaluation

1. Feature Completion
   a. Face ID / Touch ID or Firebase Authentication
   b. SpaceX API
   c. Library usage
2. Quality
   a. Code Quality
      i. Zero Lint error
      ii. Less Lint warnings
      iii. Coding style
         1. https://google.github.io/swift/
3. Architecture
   a. Resource Management (Assets, localization usage)
   b. UI Design (SwiftUI View Composition, Custom UI Components)
   c. Documentation (Code comments and Github usage)
4. Info.plist and runtime permission management
5. Penalties: Any crash or fatal errors during runtime will decrease the score
6. Design pattern usage
7. Any feature or improvement to make project better

GOOD LUCK