**Phase 2 – App Architecture: FinTracker**

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CPRG-303-D: Mobile Application Development

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**Decision Title:** Enhanced User Authentication for Fintracker App

**Context:** The current user authentication system allows users to create a profile without robust authentication measures, posing a security risk to financial information and privacy.

**Options Considered:**

1. Biometric authentication (fingerprint Scanner)
2. Encrypted local storage simplifies data security
3. Enhanced password Requirements
4. Multi-factor authentication

**Decision:**

1. Utilize the device's fingerprint scanner for biometric authentication, enhancing security without compromising user experience.

**Rationale:**

1. Fingerprint scanners are commonly available on Android/IOS devices and offer a secure biometric authentication method.
2. Biometric authentication provides a robust and convenient method to secure user accounts which align with the sensitive nature of financial and tracking expenses.
3. It enhances user experience by offering a quick and seamless authentication process.

**Consequences:**

1. Requires obtaining user consent for collecting and utilizing biometric data, adhering to privacy regulations.
2. Potential device dependency as not all Android/ IOS devices have fingerprint scanner.

**Follow-up Actions:**

1. Implement fingerprint scanner integration for biometric authentication.
2. Develop and implement the encrypted local storage solution for user authentication data.
3. Conduct comprehensive testing to ensure the security and functionality of the enhanced authentication system.

**Decision Title:** Selection of Navigation Strategy for the Fintracker App

**Context:** The current state of this app is limited in its features, lacking advanced functionalities such as budgeting, goal tracking, and expense categories. Users find it less comprehensive.

**Options Considered:**

1. Tab-based Navigation
2. Drawer Navigation
3. Stack Navigation

**Decision:** We have decided to implement Drawer Navigation using React Native

**Rationale:**

1. Drawer navigation provides a flexible and organized approach to accommodate additional features. It allows easy access to various sections of the app, making it suitable for the expected expansion of features in the future.
2. React Native allows for efficient development for the Android platform while leveraging the existing codebase.

**Consequences:**

1. Drawer navigation may lead to increased complexity, especially if not organized well.
2. On smaller screens, such as those on certain Android devices, the drawer may occupy a significant portion of the screen.
3. Some users, especially those with disabilities, may face challenges navigating through drawer menus.

**Follow-up Actions:**

1. Design and implement the drawer navigation structure.
2. Use the UI/UX skill to ensure seamless integration of new features into the app's design.
3. Run usability testing to ensure an intuitive user experience.

**Decision Title:** Implementation of Search and Filter Functionality for Fintracker App

**Context:** The app does not have a search bar to find specific transactions or filter by categories.

**Options Considered:**

1. Implement search and filter functionality using React Native's built-in components.
2. Utilize third-party libraries or plugins for search and filter capabilities.
3. Develop custom search and filter components tailored to the app's specific requirements.

**Decision:** We will implement search and filter functionality using React Native's built-in components.

**Rationale:** Additionally, relying on React Native's native components ensures better performance and integration.

**Consequences:**

1. Limited customization compared to developing custom components.
2. Dependency on React Native updates and compatibility.

**Follow-up Actions:**

1. Conduct thorough testing to ensure the search and filter functionality meets user expectations and performs well on Android devices.
2. Gather user feedback to iterate and refine the search and filter features if necessary.

**Decision Title:** Privacy Policy Implementation in Fintracker App.

**Context:** Lack of transparency regarding data handling practices within the app itself. Absence of a detailed privacy policy document accessible within the app. Introduce systems where users control their personal data and privacy settings in a way that's spread out, not controlled by just one place.

**Options Considered:**

1. Integrating a privacy policy within the app.
2. Providing clear privacy settings for users.
3. Making the privacy policy easily accessible within the app.

**Decision:** We will implement a detailed privacy policy within the app itself and provide clear privacy settings for users to adjust their preferences.

**Rationale:**

1. Integrating a privacy policy directly within the app ensures that users can easily access and review it without needing to navigate to external sources.
2. Clear privacy settings empower users to control how their data is used, enhancing transparency and trust in the app.
3. Making the privacy policy easily accessible within the app promotes transparency and compliance with privacy regulations.

**Consequences:**

1. Compliance with privacy regulations.
2. Users have more control over their data privacy settings.

**Follow-up Actions:**

1. Design and implement a user-friendly interface for accessing privacy settings and the privacy policy.
2. Ensure that the implemented privacy policy complies with relevant privacy regulations.
3. Educate users about the new privacy features and provide support for any inquiries or concerns.

**Attribution List:**

1. Decision Title: Enhanced User Authentication for Fintracker App

* Responsibility: Development Team
* Task: Implement fingerprint scanner integration for biometric authentication.
* Responsibility: Development Team
* Task: Develop and implement the encrypted local storage solution for user authentication data.
* Task: Test to ensure the security and functionality of the enhanced authentication system.

2. Decision Title: Selection of Navigation Strategy for the Fintracker App

* Responsibility: UI/UX Team
* Task: Design and implement the drawer navigation structure.
* Responsibility: Development Team
* Task: Use UI/UX skills to ensure seamless integration of new features into the app's design.
* Task: Test to ensure an intuitive user experience.

3. Decision Title: Implementation of Search and Filter Functionality

* Responsibility: Development Team
* Task: Conduct thorough testing to ensure the search and filter functionality meets user expectations and performs well on Android devices.

4. Decision Title: Privacy Policy Implementation in Fintracker App

* Responsibility: Development Team
* Task: Integrate the privacy policy within the app's interface, ensuring it is easily accessible to users.
* Responsibility: Development Team
* Task: Design and implement clear privacy settings within the app, allowing users to adjust their data privacy preferences.
* Responsibility: All Team Members
* Task: Review the implemented privacy policy to ensure compliance with relevant privacy regulations and laws.

**Progress Report: Fintracker**

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| Team Name: Dev Squad | Date: 11.02.2024 |
| Team Members: Narisara Tochamnong, Maria Fernanda Gomez Diaz, Muhabat Rahiq, Ritika Malik | Reporting Period: Phase 2 |

## **Phase 2 – App Architecture**

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| **Highlights and Accomplishments** | What major tasks that have been completed in this phase of the project?  Assignment: App architecture is completed. |
| **Challenges and Issues** | What challenges, issues, or obstacles did you encounter and how did you overcome them?  No challenges yet. |
| **Individual Contributions** | What did each member of the team work on in this phase of the project?  Muhabat and Ritika completed project phase 2: App Architecture.  Narisara and Maria worked on Assignment 2: Architectural Decisions. |
| **Team Plan for Next Phase** | What do you plan on completing in the next phase of the project?  Start working on Phase 3 – User Interface Mock-Up. |
| **Individual Plan for Next Phase** | What do you plan on completing in the next phase of the project?  According to the attribution list, each member has a task to do for the project. |