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1. The project title (it should be a catchy and meaningful title)

"**UVU3100 Safe Banking System**"

2. Tentative abstract of your project.

Tentative Abract:

"UVU3100 Safe Banking System"

The concept of the "UVU3100 Safe Banking System" aims to develop a secure mobile banking application designed to ensure data integrity, robust user authentication, and a user-friendly experience. This project addresses critical vulnerabilities, insufficient data validation and insecure network systems, focusing on mitigating risks across various layers of the security stack. In the banking and financial sector, where sensitive transactions are crucial, the UVU3100 Safe Banking System seeks to deliver secure and efficient solutions. By leveraging advanced cryptographic techniques and adhering to industry-standard security protocols, this Android-based application will provide a reliable platform for secure financial transactions.

3. Tentative five milestones specific to your project

1. Milestone 1: Research and Design (deadline: 02-02-2025)
   - Research common vulnerabilities in mobile banking apps.
   - Review existing cryptographic algorithms like **AES**, **RSA**, and study security standards.
   - Analyze potential threats, such as SQL injection and man-in the-middle attacks.
   - Identify and framework such as **Android jetpack**, **Wireshark**, and **Firebase Authentication,** and require tools for this project.
   - Document the design principles, potential threats, and countermeasures.

2. Milestone 2: Implementation (deadline: 02-23-2025)
   - Translate the designed cryptographic algorithms into java/Kotlin for Android.
   - Implement code following best practices and design criteria with the required of the tools for this project.
   - Conduct initial testing for functionality and correctness.
   - Deliverables: working app with basic security features.

3. Milestone 3: Code Security Analysis (deadline: 03-23-2025)
   - Employ static analysis tools and manual reviews to identify insecure code.
   - Prioritize vulnerabilities based on severity and potential impact.
   - Generate detailed reports highlighting insecure code segments.
   - Deliverables: code analysis report.

4. Milestone 4: Remediation (deadline: 04-13-2025)
   - Develop and document a remediation plan for addressing identified vulnerabilities.
   - Apply fixes to insecure code, ensuring compatibility with the overall system.
   - Conduct thorough testing to validate the effectiveness of the fixes.
   - Deliverables: A fully secure app with validation fixes.

5. Final Milestone 5: Documentation and Reporting (deadline: 04-23-2025)
   - Documenting the timeline of the project through the process that includes design, implementation, security analysis, and remediation.
   - Prepare a concise project report (5-6 pages) and a user guide for the application with navigation and troubleshooting.
   - Deliverables: Complete the Android application app with secure code and deployed, Project report, user guide, and final project submission.