**Test Strategy for ParaBank**

**1. Objectives**

* Ensure the application meets functional and non-functional requirements.
* Identify defects before deployment to production.
* Validate security, performance, and usability of the application.

**2. Scope**

* **In-Scope:**
  + User registration and login
  + Account management (viewing account summary, bill pay)
  + Transaction processing (deposits, withdrawals, transfers)
  + Loan management
  + Security features (authentication, authorization)
* **Out-of-Scope:**
  + Third-party integrations not directly related to core banking functions

**3. Testing Types**

* **Functional Testing:**
  + Unit Testing
  + Integration Testing
  + System Testing
  + User Acceptance Testing (UAT)
* **Non-Functional Testing:**
  + Performance Testing
  + Security Testing
  + Usability Testing
  + Compatibility Testing

**4. Test Environment**

* Set up a staging environment.
* Ensure access to necessary databases and services.

**5. Test Tools**

* **Automation Tools:** Selenium, TestNG for functional testing.
* **Performance Testing Tools:** JMeter, LoadRunner.
* **Security Testing Tools:** OWASP ZAP, Burp Suite.
* **Bug Tracking Tools:** JIRA.

**6. Test Execution**

* Define test cycles and schedules.
* Execute tests in phases (smoke testing, regression testing, etc.).
* Document results and track defects.

**8. Risk Management**

* Identify potential risks (e.g., data breaches, system downtime).
* Develop mitigation strategies for high-risk areas.