**Biweekly Report: Diagnosis of Diabetic Retinopathy - Chenyu Huang**

**Total Work Hours: 20 hours [5.26 - 6.15]**

**Work Overview**

In the past 3 weeks, I was responsible for comprehensive testing design and implementation of the system's User Authentication module and Database module, ensuring the system’s quality and security.

**Task Progress**

1. **Risk analysis and coverage**
   1. Identify and analyze 11 core risk points (5 for user management and 6 for database).
   2. Design testing strategies to achieve 100% coverage of high-risk items.
   3. Establish a complete mapping matrix between risk and SDS requirements.
2. **Test Design & Implementation**
   1. User authentication module  
      Develop 2 testing suites (TS-UM-001/002). Implement 10 automated test cases. Verify key functions such as password policy, token security, and permission control.
   2. Database module  
      Develop 3 testing suites (TS-DB-001/002/003). Implement 12 automated test cases. Covering core scenarios such as transaction consistency, performance optimization, and backup security.
3. **Automated testing results**
   1. Execution efficiency  
      - User module: Complete 10 test cases in 35 minutes  
      - Database module: Complete 12 test cases in 25 minutes (including 100000 data stress tests)
   2. Quality indicators  
      - User module: Passed 10/10 (100%)  
      - Database module: Passed on 12/12 (100%)  
      - High concurrency scenario: Supports concurrent login of 100 users (response<500ms)