Student Name: *Tong Wu*
Project Title: Beach Defense Shooter / Dou Dizhu Card Game
Date: *14/8/2025*

1. Collision Mechanics

I, /, deserve a mark of **100%** for collision mechanics. I demonstrate competency in this area in the game I made by implementing a beach defense shooting game similar to Beach Head. The game features turrets positioned on the beach that can rotate and fire at incoming naval vessels. I successfully implemented projectile-to-ship collision detection using bounding box algorithms, ensuring accurate hit registration when bullets intersect with enemy boats. The collision system handles multiple simultaneous projectiles and provides visual feedback through explosion effects upon impact. Additionally, I incorporated collision boundaries for the turret's rotation limits and implemented ship-to-shore collision detection to trigger game over conditions when enemies reach the beach.

2. Animation

I deserve a mark of **100%** for animation. I demonstrate competency in this area in the game I made by creating an offline version of Dou Dizhu (Fight the Landlord) card game with smooth card dealing animations, card selection highlighting effects, and fluid card movement transitions when players make their moves. The animations include card shuffling sequences, dealing cards with staggered timing for visual appeal, and smooth interpolation for card positioning. I also implemented hover effects and selection animations that provide clear visual feedback to enhance the user experience.

3. Physics or Networking

I choose to be evaluated on: ☐ Physics ☑ Networking

I deserve a mark of **98%** for this area. I demonstrate competency by successfully developing an online multiplayer version of the Dou Dizhu card game. The networking implementation includes a client-server architecture with real-time synchronization of game states across three players. I implemented robust connection handling, player lobby system, turn-based game logic synchronization, and efficient packet transmission for card plays. The system handles player disconnections gracefully, maintains game state consistency across all clients, and includes features such as chat functionality and real-time score updates. However, since there are still some bugs, 98% is more appropriate.

Reviewer Acknowledgment

I had this self-evaluation reviewed by: _____Robert Hortua Leal