Part 1: “Meeting Success Criteria”

1. The client can select from a variety of projectiles with different weights and sizes.
   Achieved: The game includes a selection feature that allows the client to choose from projectiles of varying weights and sizes.
2. The client can adjust the launch angle and power for each projectile.
   Achieved: The game provides interactive sliders for the client to adjust the launch angle and power.
3. The application visualizes the trajectory of each launch in real-time.
   Achieved: Trajectories are rendered dynamically as the projectile is launched, allowing the client to see the path in real-time.
4. The application provides immediate feedback on the success of hitting a target after each launch.
   Achieved: The game displays a visual and textual indication of success when a target is hit.
5. The program allows the client to see a summary of the physics principles demonstrated by each launch.
   Achieved: After each launch, the game presents a concise summary of the relevant physics principles.
6. The application includes levels of increasing difficulty, introducing obstacles and requiring the application of learned concepts.
   Achieved: The game progresses through levels with increasing complexity, including various obstacles that challenge the client's understanding of projectile motion.

Part 2: “Feedback from Client”

The client expressed enthusiasm about how the game made abstract physics concepts tangible and easy to experiment with. They enjoyed the challenge posed by the levels and found the real-time trajectory visualization particularly helpful. Some aspects, such as the side-by-side comparison feature, were noted to be less intuitive than others. Overall, the client agreed that the product is a valuable educational tool, enhancing their grasp of projectile motion in an enjoyable format.

Part 3: “Recommendations for Future Improvements”

Introduce Adaptive Difficulty:

Implement a system that adapts the level difficulty based on the player's performance, providing a tailored challenge that could accelerate learning. This can be realized by analyzing the player's success rates and adjusting game parameters accordingly.

Expand Educational Content:

To further enrich the learning experience, integrate interactive mini-lessons or challenges that focus on specific physics concepts. This content could be developed in collaboration with educators to ensure it aligns well with educational standards and curricula.