Technical design document

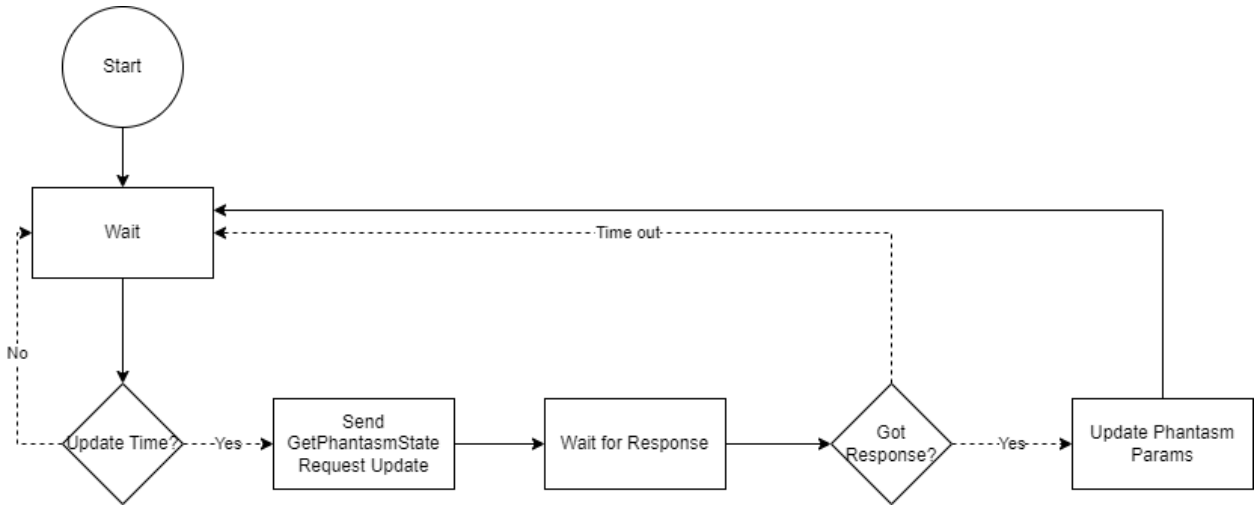
A. Analyze Requirement:

To implement the Phantasms client feature, we need to design a system that can communicate with the server to retrieve the current state of other players and update the behavior parameters of the phantasms. The system should also be able to animate the avatars of the phantasms based on their simplified movesets.

Here is a high-level design for the Phantasms feature:

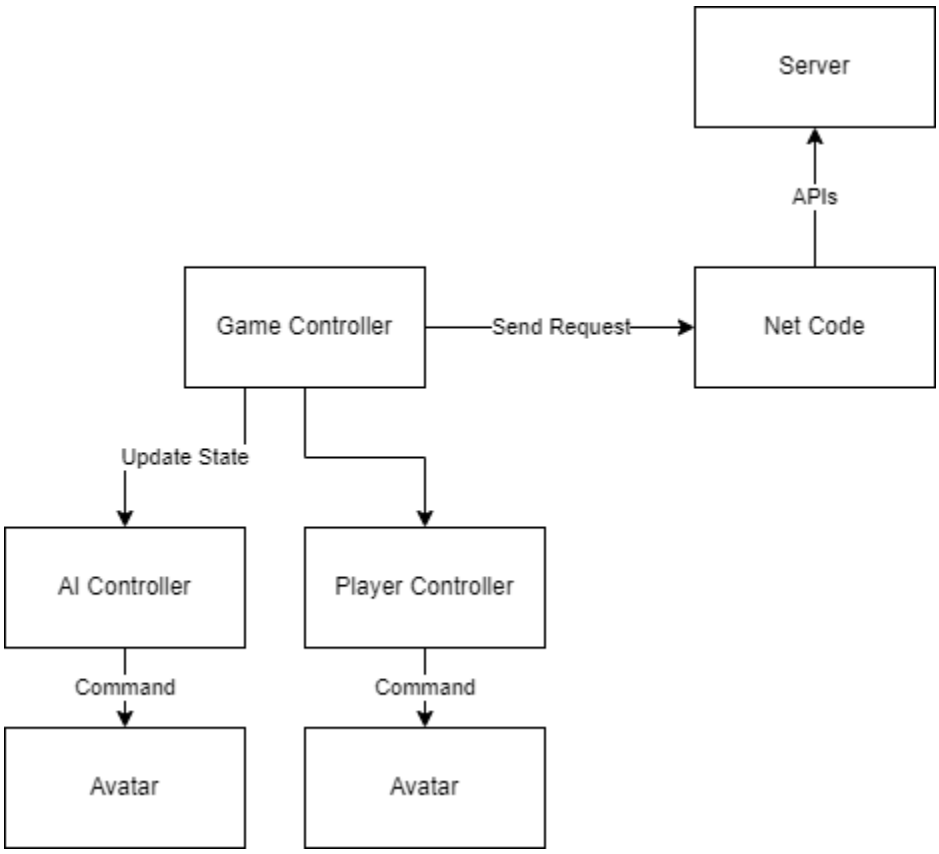
1. Server communication:
    - We will use a RESTFUL API to communicate with the server and retrieve the current state of the Phantasm.
    - We will create a wrapper class for the API calls to abstract away the details of the communication protocol.
    - We will periodically poll the server for updates (every minute or so) and update the behavior parameters of the phantasms accordingly.
2. Phantasms behavior:
    - We will create a Phantasm class to represent each phantasm in the game.
    - Each Phantasm object will have a set of behavior parameters that control its moveset and overall behavior.
    - We will update the behavior parameters of each Phantasm object based on the current state of other players retrieved from the server.
3. Avatar animation:
    - We will create an Avatar class to represent the avatars of the phantasms.
    - Each Avatar object will be associated with a Phantasm object.

B. FlowChart:



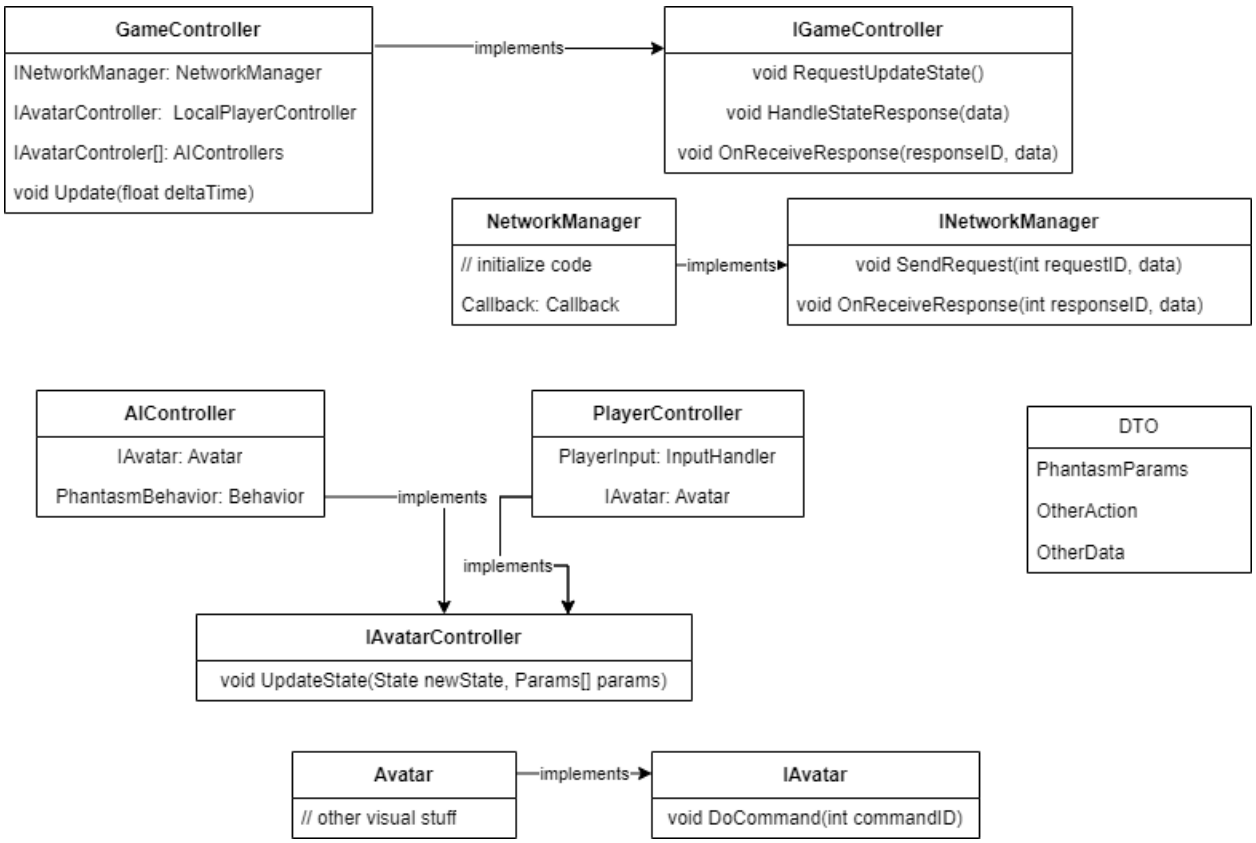
We run a loop to check if it's update time. If it is, send the GetState request to the server and wait for the response. Update Phantasm after we've got the response. If time-out, go back to wait.

C. Architecture Overview:



We will use the MVC architecture here.
Server provides the API.
Net Code handles networking communication.
Game Controller tells when to send the request and Update AI States.
AIController: AI agents handling the Phantasm's avatars.
PlayerController: Local player controls, will process input from actual players.
Avatar: Act by command, and display visuals to players.

D. Class Diagram:



E. Pseudo Code:

Please check the class folder.