**Introduction**:

You are required to implement a Hi-Lo card game. Game Card deck is standard 52 cards <https://en.wikipedia.org/wiki/Standard_52-card_deck>. Each round player must guess if next card drawn from the deck is equal, higher or lower to the base card. Card ranks are from 2 to 10. Jack, Queen, King and Ace have rank 10.

**Gameplay requirements**:

1. When round is started server sends to player StartRoundRequest. Client must display base card from StartRoundRequest.

2. Client has 10 seconds to make an action. During this time player has a choice of three actions - 'higher', 'lower' or 'equal'.  
3. Client must display countdown values to player.

4. When countdown reaches zero client stops accepting actions

5. If player does not make an action, go to point 7

6. Server checks internally player action and compares base card rank to result card rank. - If player action was correct, player wins - If player action was incorrect, player loses

7. Server sends FinishRoundRequest to client

8. Client must display win result to player

9. Previous result card became new 'base card'

10. Repeat steps 1 to 10.

**General implementation requirements:**

1. Console interface should be used to control both server and client.

2. Separate client and server applications.

3. Socket connection between server and client.

4. Validation of console commands.

5. Textual or binary protocol between client and server.

6. Sufficient unit test coverage

7. Provided project skeleton is only to get started. Existing objects can be enhanced as necessary.

8. Minimal use of external frameworks

9. Code must compile, be easily readable and follow 'Clean Code' principles

10. Do not over complicate. Simplest solution is most likely the correct one.

**Server implementation requirements:** 1. Server must control game flow 2. Server must have necessary validation 3. Server must implement GameService interface

Client implementation requirements: 1. Client displays all messages sent by the server   
2. Client must implement GameClient interface

**Deliverables**:

1. Zip file with sources

2. Instruction how to run both client and server

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2. Instruction how to run both client and server