Design Document(version2)

TRIVIA

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GROUP 6 |

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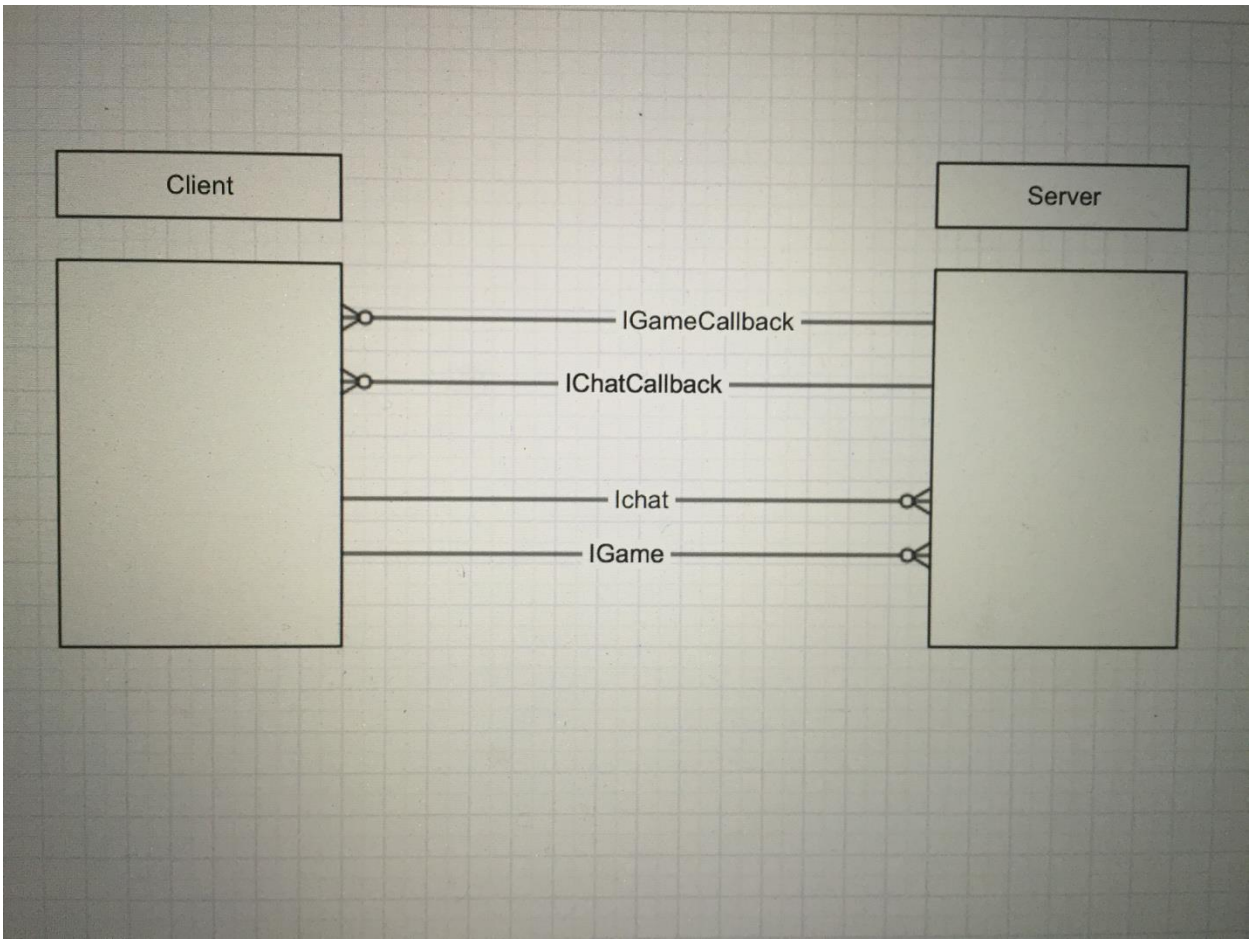
1. Architecture diagram



2. Interface and methods descriptions

IGame

This interface implements the various functions for the game.

```
/// <summary>
        /// It starts the game after the check is complete. The check of players is done
here.
        /// </summary>
        [OperationContract]
        void startGame();

        /// <summary>
        /// It sends a question to a player.
        /// </summary>
        /// <returns>The next question to be asked.</returns>
        [OperationContract]
```

```
        Question getQuestion();

        /// <summary>
        /// It sets that a player is ready to start a game.
        /// </summary>
        /// <param name="playerId">The id of the player.</param>
        [OperationContract]
        void setReady(int playerId);

        /// <summary>
        /// It sends the answer of a player to the server. The check of the answer is
done here.
        /// </summary>
        /// <param name="playerId">The id of the player that sent the answer.</param>
        /// <param name="answer">The id of the answer.</param>
        [OperationContract]
        void setAnswer(int playerId, int answer);

        /// <summary>
        /// It indicates that a player wants to leave the game.
        /// </summary>
        /// <param name="playerId">The id of the player.</param>
        [OperationContract]
        void leave(int playerId);

        /// <summary>
        /// It indicates that a player wants to leave the game.
        /// </summary>
        /// <param name="playerId">The id of the player.</param>
        [OperationContract]
        void restart(int playerId);
```

IChat

This interface implements the chat.

```
/// <summary>
        /// It sends a player's message to the server.
        /// </summary>
        /// <param name="player_id">The player that send the message.</param>
        /// <param name="message">The message that was sent.</param>
        void sendMessage(int player_id, string message);
```

IGameCallback and IChatcallback

These interfaces are implemented in the client and have basic functionality.

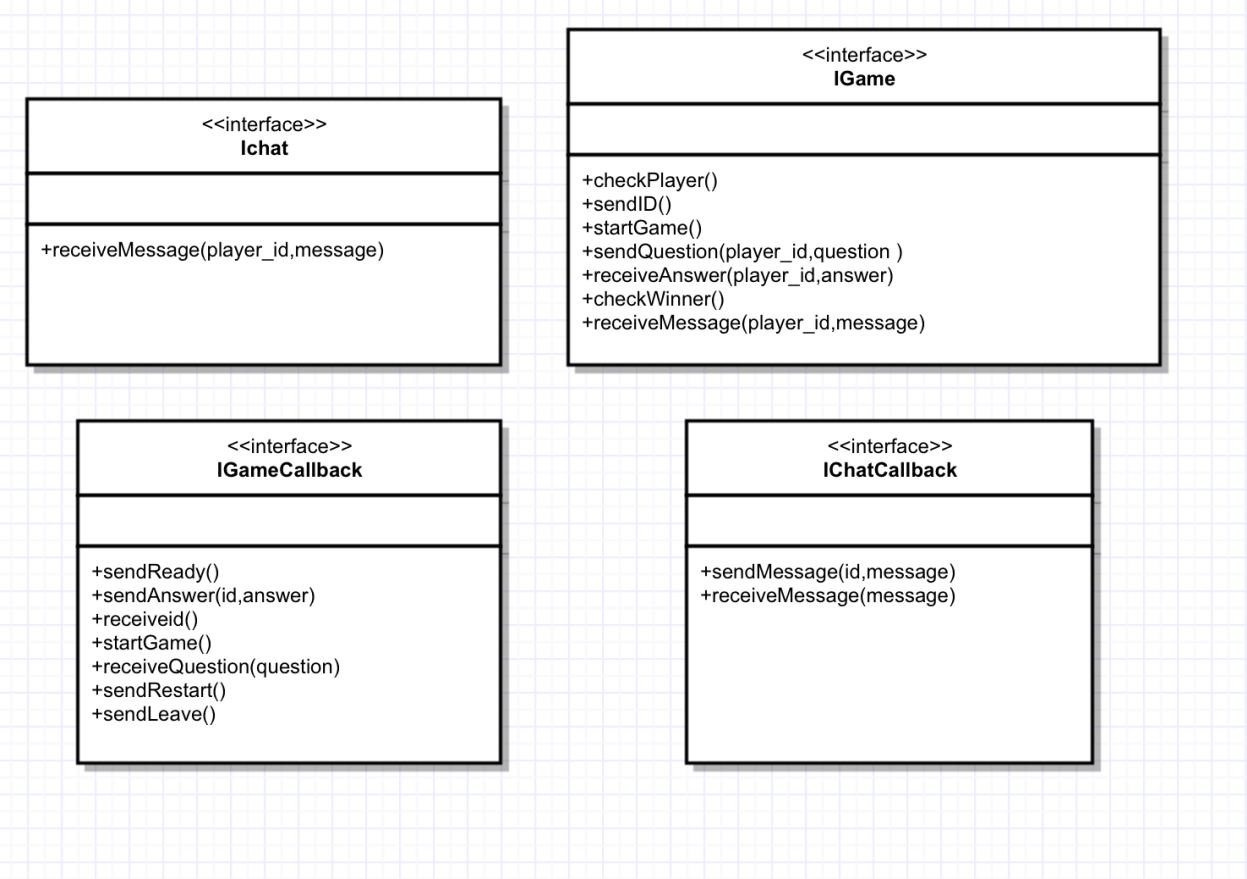
```
interface IGameCallback
    {
        /// <summary>
        /// It sets the unique id on the client.
        /// </summary>
        [OperationContract(IsOneWay = true)]
        void setId();

        /// <summary>
        /// It notifies the client that the game starts.
        /// </summary>
```

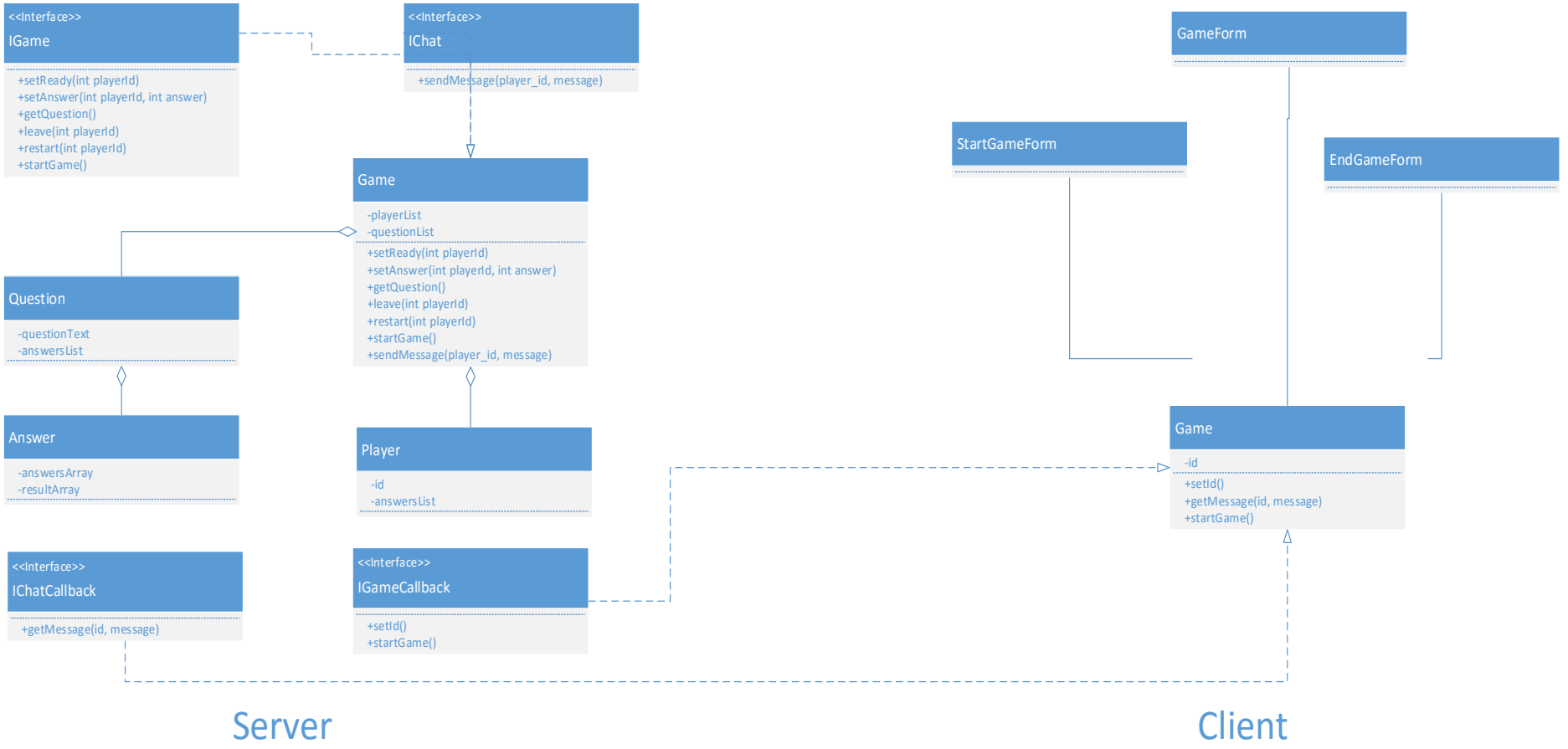
```
        [OperationContract(IsOneWay = true)]
        void startGameInClient();
    }

interface IChatCallback
    {
        /// <summary>
        /// It receives a message from the chat.
        /// </summary>
        /// <param name="id">The id of the player that sent the message.</param>
        /// <param name="message">The body of the message.</param>
        void getMessage(int id, string message);
    }
```

2.1 Callbacks/Events

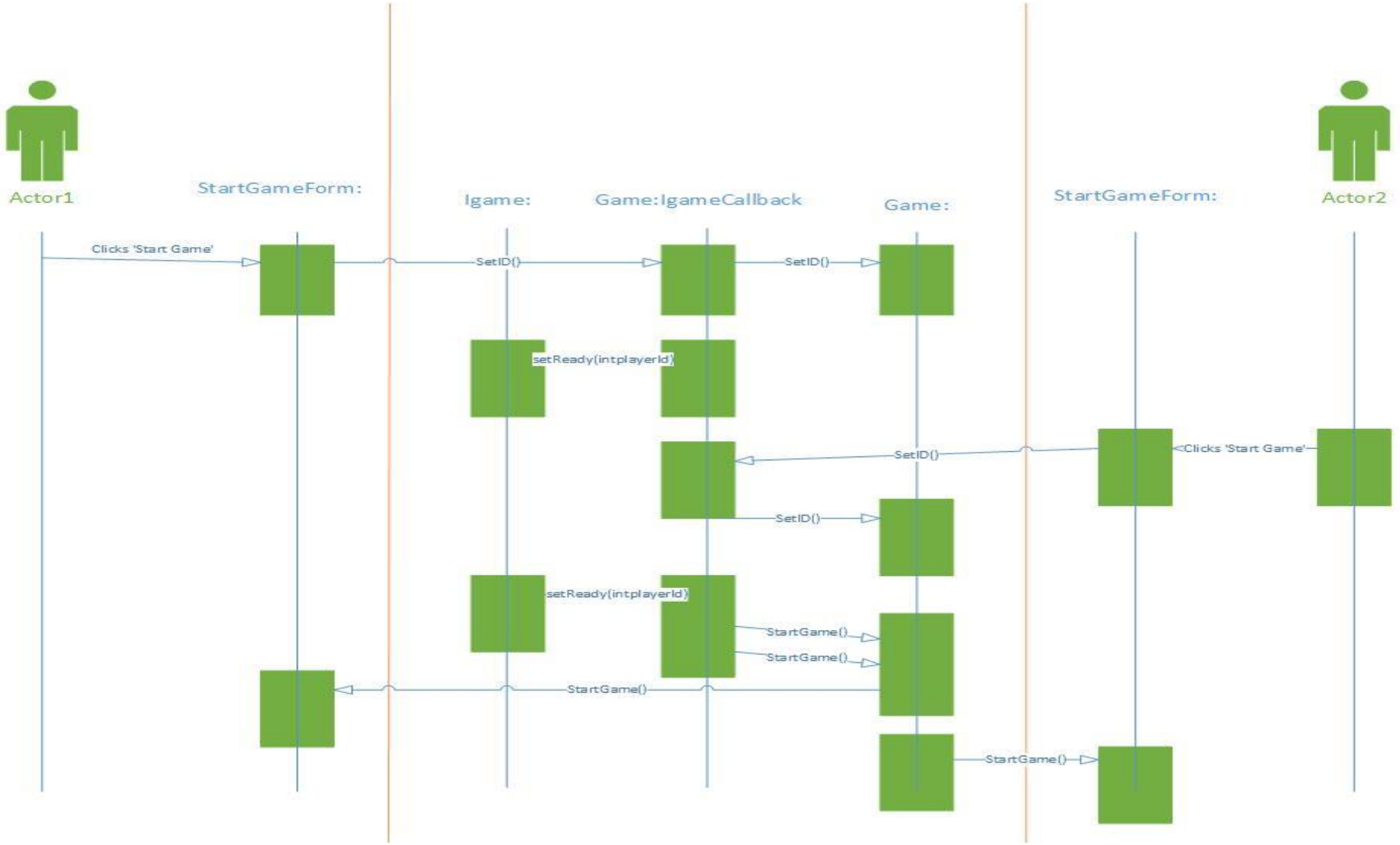


3. Class diagram

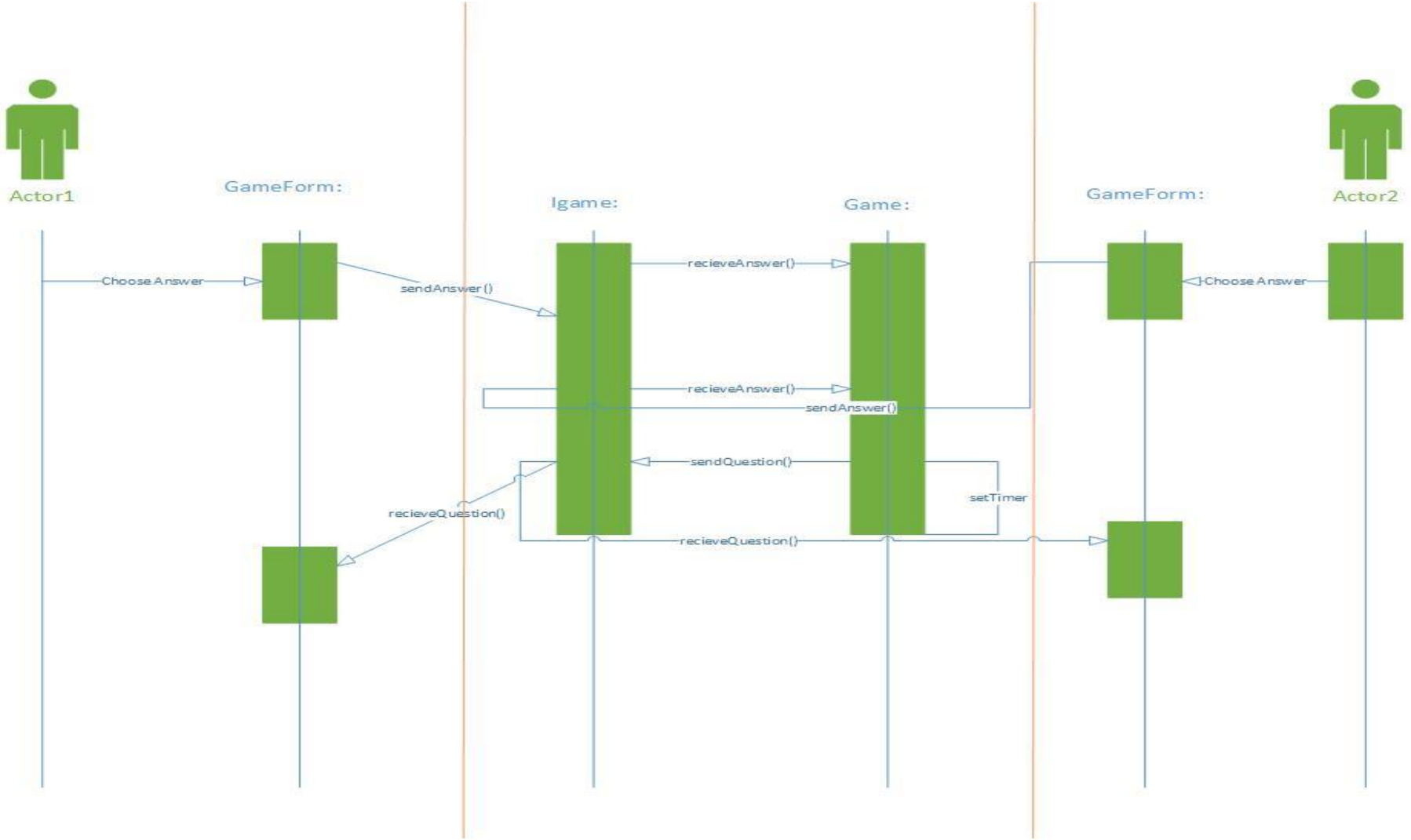

<<Interface>>
IGame
+setReady(int playerId)
+setAnswer(int playerId, int answer)
+getQuestion()
+leave(int playerId)
+restart(int playerId)
+startGame()
<<Interface>>
IChat
+sendMessage(player_id, message)
Game
-playerList
-questionList
+setReady(int playerId)
+setAnswer(int playerId, int answer)
+getQuestion()
+leave(int playerId)
+restart(int playerId)
+startGame()
+sendMessage(player_id, message)
Question
-questionText
-answersList
Answer
-answersArray
-resultArray
Player
-id
-answersList
<<Interface>>
IChatCallback
+getMessage(id, message)
<<Interface>>
IGameCallback
+setId()
+startGame()
GameForm
StartGameForm
EndGameForm
Game
-id
+setId()
+getMessage(id, message)
+startGame()
Server
Client

4. Sequence diagrams

4.1 Start game



4.2 Answer Question



4.3 Win/Lose/Draw