# Web Assignment 2

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# 2 - Client-side JavaScript

**2.1) Plan of action:**

* A game is started.
* Player waits to be matched to someone else.
* Possibility to cancel during waiting time.
* Match is found – New game is started.
* Timer starts and two players compete to see who will finish first.
* If one player quits the game or closes the window their opponent wins and the game ends.
* When someone finishes first their opponent is informed and the game ends.
* To win players need to find all matching cards before the other player.

**2.2) Use of design patterns:**

We used a basic constructor pattern which saves the two players and the current state of the game. Every time two players are matched up, we create a new game instance.

**3.3) WebSocket communication pattern between clients and server. Create a list of message types (e.g. game-start, game-move, player-type, abort-game, …) and work out who (server, client-A, client-B) communicates it to whom:**

**Message Types:**

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1. **Queued**

Server sends it to client-A.

1. **Game Start**

Server sends it to client-A and client-B.

1. **Join**

Client-A or client-B send it to the server.

1. **Leave**

Client-A or client-B send it to the server.

1. **Score Update from Client**

Client-A or client-B send it to the server.

1. **Score Update to Client**

Server sends updated scores to the client.

1. **Victory**

Client sends it to server.

1. **Loss**

Server sends it to client.

1. **Play Again**

Client sends it to server.

1. **Quit Game**

Client sends it to server.

1. **Game Finished**

Server sends it to client.

1. **Update Statistics**

Server sends it to client.

1. **Abort Game (Cancel)**

Client sends it to server.