

Full Names:

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Emails:

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user names:

1. yairlevi1
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Ids:

1. 200945657
2. 201445681

Running instructions:

1. use the make file to 'make all' and 'make clean' if needed
2. run the server using 'nim-server X X X'
3. run the client using 'nim' (optional parameters)

There are 2 files: Server.c Client.c, both are very readable and every function is named by its functionality.

Protocol:

Server -----'GameData'----> Client

Server <----'ClientMsg'-----Client

```
struct gameData{
    int valid;
    int msg; // <sender Id> - this is a message, (-1) - send to all - (0) this is not a msg
    int isMyTurn; // 0 - no, 1 - yes
    int win; // 0 - no one, <player id> - the player id who won
    int numOfPlayers; // p - then number of players the server allows to play
    int myPlayerId; // player id (0 - p-1), if i dont play: -1
    int playing; // 0 - viewing, 1 - playing
    int isMisere;
    int heapA;
    int heapB;
    int heapC;
    int heapD;
    int moveCount; /* amount of moves that were made*/
    char msgTxt[100];
};
```

```
struct clientMsg{
    int heap;
    int amount;
    int msg; // 1 - this is a message, 0 - this is a move
    int recp; // player id to send the message to (0 - p-1)
    int moveCount; // amount of move that were made
    char msgTxt[100];
};
```



Server Response:

if the msg is valid (the recp is a valid player id, or -1 for 'send to all') the server sends 'GameData' obj to the right client with:

valid = 1  
msg = <sender player index>  
msgTxt = 'msg text'

all other params will be ignored

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Server notify viewer client that he turns to be a player

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Server sends a 'GameData' obj with:

valid = 1  
playing = 1

all other parameters needs to be sent too

\*\*\*\*\*

Server notify viewer client that it is his turn

\*\*\*\*\*

Server sends a 'GameData' obj with:

valid = 1  
playing = 1  
isMyTurn = 1

other params will be ignored

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Game over

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If all the stacks are 0's (after some client played) the server sends 'gameData' obj to all clients with:

valid = 1  
win = <player id> - if on misserly so this the player that lost.