

System Requirements Specifications

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1 Functionality

Client-Server program that allows client to play card games against other humans or against a computer.

- Client can connect to a game and play.
- Client may choose between Hearts and Spades.
- Client can play without other human players
- AI plays correct game
- AI makes legal moves
- Menu to choose options
 - exit game
 - see past move

2 Usability

- Be able to choose game to play
 - change game options
 - change number of players
- User can view GUI
- User can login
 - Make new user
 - Create username
 - Make password, use password
 - Change password
 - Successfully login
- User can view and access menu
- User can play appropriate game play
- User can quit game (in fit of rage)
- User experiences correct end game sequence

3 Reliability

- Game logic, rules and cards all function in an appropriate manner and as expected.
- Abrupt errors will be handled so that user is not affected by other player disconnection.

4 Performance

- Program handles player and AI disconnection from game gracefully.

5 Supportability

- Unit tests for all functions will be included for source code.
- Game instructions will be included in program
- Game development supported through Dec 16, 2016.

6 +

6.1 Design Constraints

- Team will use wxWidgets 3.1.0 (www.wxwidgets.org) as the GUI library for client side software.
- Boost version 1.62.0 (www.boost.org) will be used as additional libraries for the code.

6.2 Implementation Constraints

- Group standards (as set forth in PIP) will be adhered to.
- Project will be built with externpro (<https://github.com/smanders/externpro>) and cmake (<https://cmake.org>).

6.3 Interface Constraints

- Network compatibility with other groups is necessary for gameplay between servers.
- Each client must be able to work with all other servers.

6.4 Physical Constraints

- Software will be deployable on Linux and Windows distributions.
 - At current time, Mac systems are unable to use the mandated externpro build.