## SDD -Client Low Level Design

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# Client State Diagram Login CreateAccount ChooseGame New Game Join Game Private Game CreateGame EnterGame SelectGame ScoreBoard GameBoard RoundOver

State Diagram.png

Client Class Diagram

#### 1 MainFrame

This class is inherited publically from wxFrame.

#### • public:

- MainFrame(const wxString& title, const wxPoint& pos, const wxSize& size);
  In the main frame, the main components of the software are held. Following are the functions included:
- void joinPrivateSpadesGame(wxCommandEvent& event)
   This function allows a user to join a spades game that is closed to public use.
- void joinPrivateHeartsGame(wxCommandEvent& event)
   This function allows a user to join a hearts game that is closed to public view.
- void joinPublicSpadesGame(wxCommandEvent& event)
   This function will allow user to connect to first available spades game.
- void joinPublicHeartsGame(wxCommandEvent& event)
   This function will allow user to connect to first available hearts game.
- void createNewSpadesGame(wxCommandEvent& event)
   This function will create a new Spades Game.
- void createNewHeartsGame(wxCommandEvent& event)
   This function will create a new Hearts Game.

#### • private:

- ServerDialog m\_serverDialog;
- wxMenuBar\* m\_menubar;
- xMenu\* m\_menuFile;
- wxMenu\* m\_menuTest;
- wxMenu\* m\_menuServer;
- wxMenu\* m\_menuHelp;
- wxMenu\* m\_menuGameRules;
- void loadPlayerHand( wxCommandEvent& event );
   Allows for players hand to be loaded on screen from server.
- void loadCenterCards( wxCommandEvent& event );
   Allows for cards to be placed in middle of screen after play.
- void serverSettingsDialog( wxCommandEvent& event );
- void connectToServer( wxCommandEvent& event );
   Allows player to connect to server to play game of choice.
- void showHeartsRules( wxCommandEvent& event );
   Allows user to get Hearts Rules.
- std::string getHeartsRules();
- void showSpadesRules( wxCommandEvent& event );
   Allows user to get Spades Rules.
- std::string getSpadesRules();
- void OnExit(wxCommandEvent& event);
   Allows user to exit program.
- void OnAbout(wxCommandEvent& event);
   Allows user to see details of program.
- wxDECLARE\_EVENT\_TABLE();

#### 2 ServerDialog

This class is inherited publically from wxDialog.

- public:
  - ServerDialog( wxWindow\* parent, wxWindowID id = wxID\_ANY, const wxString& title = wxEmptyString, const wxPoint& pos = wxDefaultPosition, const wxSize& size = wxDefaultSize, long style = wxDEFAULT\_DIALOG\_STYLE );
  - std::string getIP() return m\_ip;;
  - int getPort() return m\_port;;
- private:
- protected:
  - std::string m\_ip;
  - int m\_port;
  - wxWindow\* m\_parent;
  - wxStaticText\* m\_staticTextIP;
  - wxTextCtrl\* m\_textCtrlIP;
  - wxStaticText\* m\_staticTextPort;
  - wxTextCtrl\* m\_textCtrlPort;
  - wxButton\* m\_submitBtn;
  - void OnClose(wxCommandEvent& event);

#### 3 RulesWindow

This class is inherited publically from wxScrolledWindow

- public:
  - RulesWindow(wxWindow\* parent, wxWindowID id, std::string rules);
     This allows user to read and learn rules for either Hearts or Spades.
- private:
  - std::string m\_rules;

#### 4 LoginLayout

This class is inherited publically from wxBoxSizer

- public:
  - LoginLayout(MainFrame\* parent, int orient = wxVERTICAL);
     This function will bring up a screen where user may login to play game.

#### 5 LobbyLayout

This class is inherited publically from wxBoxSizer

- public:
  - LobbyLayout(MainFrame\* parent, int orient = wxVERTICAL);
     This function allows the user to access the game lobby.

### 6 CreateGameLayout

This class is inherited publically from wxBoxSizer

- public:
  - CreateGameLayout(MainFrame\* parent, int orient = wxVERTICAL); When called, this function sets up a game layout for game play.