

Menu Page:

- some game related background (just a picture, could be anything)
- 3 buttons
 - host game (opens the host game screen)
 - join game (opens the join game screen)
 - quit (quits application cleanly)

Host Game Settings Page:

- Port entry (with default port) -- text field for entering port for networked multiplayer
- two buttons
 - start game button (launches a game on the network if port is available, if unavailable then an error pops up)
 - go back button (returns to menu screen)

Join game setting page:

- input host ip/port box and button -- text fields for entering ip and port for networked multiplayer and text field for username
- button for join game

Host Loading Menu

- JTextArea with updates about who is trying to connect, and people who have connected
- Stays throughout the whole game

Join Loading Menu

- JTextArea with the connection status and other players in the lobby
- Disappears when the game starts

In Game:

- Board (resizeable)
 - Tiles, Edges, Nodes
 - Resource colors
 - Number tokens
 - Ports
- ChatBox:
 - chatbox located on side of app
 - private messages using /m,/msg or /p username (denoted by italics and preceded by *whisper*)
 - player color for text
- Game log and help messages
 - located above chat
 - Various game update messages (whose turn it is, what was built, who traded with whom, who robbed whom, etc.)
- Help button
 - opens popup with basic instructions for how to play
- Toggle music button
 - toggles in game music on and off, changes icon accordingly
- TabbedMenu
 - Overview -- basic information about state of game

- resource count, vp count, city count, settlement count, road count, dev card count for each player
- Build -- select from various build options
 - buttons disabled if not active player or cannot afford
 - valid build locations on board will appear with slightly opaque icons to indicate their validity
- DevCard -- display of devcards and the option to play them
 - buttons disabled if not active or no such card owned
 - Monopoly
 - launches pop up with radio buttons to select resources and submit button
 - RoadBuilder
 - allows player to click and build two roads
 - Knight
 - allows user to click and move the robber
 - if the robber is moved to a tile with settlements on it, user is presented with pop-up to select who to steal a random resource from
 - Year of plenty
 - launches pop up with two rows of radio buttons to select resources and submit button
- Trade
 - drag and drop resources into give/get areas
 - allows player to propose a trade using jButton
- Game manager button (roll die or end turn)
 - displayed below the game board (flashes when action required)
 - disabled when not active player
- Player resources
 - Resource counts for each player displayed below the game board
- Roll seven
 - if a seven is rolled, all players with more than seven resource cards are presented with a popup that allows them to drop resources (simply a row of comboboxes and a submit button, very similar to the trade menu)
 - the roller of the seven then is allowed to click a new tile to move the robber to
 - if the robber is moved to a tile with settlements on it, user is presented with a popup to select who to steal a random resource from
- Victory conditions
 - If a player wins the game, players are presented with a pop-up indicating who won along with a button to take them back to the Main Menu so they can restart a new game or quit

Networking

- If the server or client crashes, then a pop-up is sent to every client, telling them to go back to the main menu, where the client can host or join a new game.

- If a player wins, then a message is sent to all the clients, explaining who won, and then bring the clients back to the main menu, where the clients can join or host a new game

IGNORE EVERYTHING BELOW THIS LINE (IT IS OUT OF DATE)

Your hand (counts of resource cards, clickable development cards) -- click to play devcards, each one opens new pop-up (Swing)

- Counts of opponents VPs, resource cards, and dev cards (one table per player, located in corners) (Swing)
- role/done with turn button
 - when it first appears it will have picture of dice on it
 - when first clicked it will change to say "end turn" and then start the users turn
 - if it says "end turn" and is clicked, it will end the players turn and hand control of the game over to the next player
 - if ANY other pop-ups are open, this button will be grayed out
- forfeit/quit button with pop-up confirmation dialog (ends game for ALL players)
- Trade button (which opens trade pop-up)
 - two rows: incoming and outgoing resources (with drop-down menus for quantity)
 - send button (results in pop-ups on opponents instances -- accept or decline buttons-- first come / first served)
 - close button
- global chat/game event log/help-message display with escapes for PMs (/p or whatever)
 - single box for chat will also display in unique colors (the whole idea is that each message will have a unique identifier to improve readability :
 - help messages (if toggled) -- these will all be prefaced with "TIP: " to differentiate them from other messages
 - game events (VPs awarded, structures built, die rolls, trade reports, current turn)
 - interplayer chat
 - private
 - public
- Build menu (which opens build pop-up)
 - table of all build options (as buttons, grayed if unavailable), click to select, click board (in valid area) to place
 - close button
- knight/7-rolled pop-up (if a 7 is rolled or a knight is clicked, a pop-up warning will appear until both of the following are complete):
 - click board (in valid area) to place robber (if valid, robber is moved)
 - click corner to take random card from player (unavailable options grayed out)
- monopoly:

- pop-up that lets you select a resource from dropdown menu with confirm button
- year-of-plenty:
 - pop-up that lets you add two resources (two columns of radio buttons and a submit button)
- road builder (if road builder is clicked, open a pop-up warning until two roads have been placed):
 - click-board (in valid area) twice to add roads
- ALL POP-UPS OPEN OVER THE END-TURN/ROLL BUTTON

Settlers of Catan specifications

Menu

The menu screen should have “Settlers of Catan” at the top, be composed of 5 buttons (Host Game, Join Game, User Profile, Settings and Exit), and display some sort of background relating to the game (Picture of a board, resource cards, etc.). The first 4 buttons (Host Game, Join Game, User Profile, Settings) all lead to different screens in the same window while Exit should simply close the application and any resources it was using. The window should not be resizable (only within the settings menu can the user change the size). (Should there be a little ‘x’ button in the top right for closing the program?)

Host Game

Upon pressing the Host Game button, the window should change to the “Host Game” screen. This screen will contain a text field and a label for inputting a port number, a button to go back to the Menu and a button to start the game (the drawings currently have a third button “Set”).

If a default port is specified in the Settings screen, then that one should be placed in a text field. Otherwise, if the text field is empty, then the application should scan for open ports to host the game on. If there is anything typed in the text field, the program should check to see if the port is valid and available. If the port is neither valid nor available, then the Start button will be grayed out. Once a valid port is found, the Start button will be enabled.

The back button should simply change the screen to the Main menu.

When the player presses the Start button, a new game will be loaded up and the screen will change to a new board layout. The game will only start when four players (including the host) connect to the host. (While players are waiting for others to connect, do we want them waiting on a screen containing the board or a separate screen showing the status of the other players and then once all players connect, show the game board?)

Join Game

This screen will contain a text field and a label for inputting a port number, a button to Join the game, and a Back button.

Pressing the Join button should result in either two options. If the port specified in the text field is valid and is hosting a game with empty spots for new players, then the program should connect to that game and display the game to the user by changing the screen to a board layout (**whether we show a game board while waiting or another screen should be consistent with what we chose for Host Game**). If the port number is invalid, not hosting a game, or is currently full, then a warning, in the form of a pop-up, should be displayed explaining what went wrong. The pop-up should have one button to close the pop-up and return to the Join Game screen.

User Profile

This screen will contain a label, text field and a Set button for the username that will appear to other players. If the text field is not empty, pressing the Set button will set the username to whatever is in the field. Otherwise, nothing will happen. There should be a default name if no username is specified.

There will also be a label, picture box and Change button for the user to set what avatar they want displayed to other users. Pressing the Change button should open up a file browser pop-up from which the user can find an avatar. This pop-up should display the current path, any files and folders in the current path, a Select button to chose a specific file and a Cancel button to close out of the browser. The Select button will return to the screen and attempt to load the file. If the image is too big or if the file is not an image, then the avatar should not change but a warning should appear under the avatar (**or maybe make this a pop-up for consistency?**) By default, the avatar is set to a gray background. (**or nothing and nothing will appear to the other players. Also, where do we plan on placing the avatars in game? Above each user box?**)

There should also be a label and a scrollable table containing various statistics. There should be entries tracking number of wins, number of loses, number of plays, and at least three (**arbitrary number**) other statistics.

Finally, there should be a Back button that simply returns to the Main menu.

Settings

This screen will contain a label for displaying the state of help tips (on or off) and a button for toggling in game tips (**right now we have just a button. I feel like there needs to be some sort of label that tells the user if the tips are on or off**).

There should also be a label, text field and button for setting the default port number when

hosting games. Pressing the button should only store the port number but not actually check if it is valid.

There should be a label and 3 radio buttons for setting the size of the window (small, medium, large). Toggling each radio button should resize the window immediately.

There should be a label and button for turning on the music. The label should display whether the music is on or off. (same issue as with toggling game tips)

Finally, there should be a back button to return to the Main menu.