

FreeCol
Refactoring the Strategy Game FreeCol
SOEN 6471 - Milestone 2 - Use Cases
and Domain Diagram

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Personas, Actors, and Stakeholders

Main Persona - Judy the avid Strategy Game player and has joined a small community of players that are serious about their strategy games. She wants to play not only single player games, to hone her skills but also wants to play online with friends in private online games or on public servers provided by the Community of game players. FreeCol is such a game, it is a turn based strategy game, similar to Colonization and the famous Civilization. It differs from these because it can be played in single player mode or multiplayer mode, online, which is what attracts Judy to FreeCol. Judy also wants to introduce this game to her other friends. She can do this now with FreeCol by inviting people to play with her online in Private games where there is less pressure to compete. In other words games can be played for fun.

The primary actors in FreeCol are the players and the online host of the game. It is the Players that play the game, report bugs and express to the developers concerns about the game. The game play and rules of the game are thoroughly tested by the players. The Host of a game deploys a game and invites other players to join the game. The game is deployed on the hosts computer. It is the hosts computer that will build the map and keep track of the overall game play, including the validation of player moves and keeping track of all the players statistics during game play.

The stakeholders of FreeCol are the Developers of the game itself. It is the concern of the developers to ensure smooth and stable game play. Bug reports are key to getting feedback from Players about problems with the game. The developers are almost all programmers or designers involved in creating and maintaining FreeCol. It is their goal to develop and release a game that is attractive to the game playing community at large.

Use Cases

Start New Game Single Player

Player launches FreeCol by clicking on FreeCol Icon
System displays welcome message and prompts the player to make the choice : Single or Multiplayer game mode.
Player selects for Single Player.
Server prompts user to choose Create New Game or Continue Saved Game.
The player selects to start a new game
System returns success message that a new game has been created

Start New Private Game - Multiplayer

Use Case assumes that FreeCol is already launched.

Game prompts user to choose single/multiplayer mode.
Player chooses multiplayer option.
Game prompts user to choose Create New Game or Join Existing Game.
User selects Create New Game.
Game prompts host to choose public or private game.
Host chooses private game.
Game prompts user to create a password for the game.
Host enters the password.
Game prompts user for IP address.
User enters IP address.
Server authenticate/validates the host.
Server opens default port with IP Address supplied by the user and returns success.

Join Private Game - Multiplayer

Assumes Player has already launched FreeCol and has selected multiplayer mode

Game prompts player to Create a New Game or Join Existing Game
Player chooses to Join Existing Game option
Game prompts Player for the IP Address of the Multiplayer game
User enters the IP Address

Game searches for Server IP Address - on success
Game prompts player for the password.
Player enters the password.
Server validates the password
Server opens the port with IP address and validates the user to play a new private multiplayer game.

Start New Public Game - Multiplayer

Assumes Player has already launched FreeCol and is running a host server.

Game prompts user to choose public or private game.
User chooses Public game.
Game prompts User for Host IP Address
User enters IP Address
Game prompts user whether game will be password protected or not
User selects No Password Option
Server opens default port with IP Address supplied by the user and returns success message stating a new game was successfully created

Search For Game - Multiplayer

Assumes Player has already launched FreeCol

Game prompts user to choose Single or Multiplayer Game
Player chooses Multiplayer Option
Game Prompts user to select a specific game or search for a New Game
Player selects Search For New Game.
Game searches for open games. Returns a list of open games to Player
Player selects a game from the list.
Returns success message to Player.

Generate Random Map - Single Player

Assumes Player has already launched FreeCol and player has selected to play a new single player game
Game prompts player to build a map with the options;
manually creating a map,
choosing a default map,

creating a random map

Player chooses to create a random map

Game returns success to player when the map is created tating map was created and prompts player to click on “continue” button to start the game

Player presses continue button to go to the Main GUI.

Reload Single Player Saved Game

Assumes Player has already launched FreeCol and player has selected to play a single player game

Game Prompts Player to start New Game or Continue Saved Game

Player chooses to Continue Saved Game

Game server locates the data of Saved Game and loads game onto player Console starting the game

Take Turn

Assumes Player is already playing FreeCol - Single or Multiplayer

Game Prompts player to take turn

Player selects Build from Drop down Menu

Game returns Types of Build Options

Player Selects “Build Port”

Game validates Players resources and Validates Rules. Returns success to Player and updates GUI with a new port at map location

Single Player : Quit game

Assume that player is playing a Single Player game.

Player selects option Quit Game from drop down menu bar

Game responds prompting Player to Save and Quit Game or Cancel

Player Selects Save and Quit Game Option

The system successfully saves the game posts success message to player and exits game.

Multiplayer : Quit Game

Assumes that player is playing a Multiplayer game.

Player selects the option Quit Game from drop down menu bar

Game responds prompting Player to Save and Quit Game or Cancel

Player Selects Quit Game Option

The system successfully saves the game posts success message to player, but at the same time posts status of player to other connected players and exits player from the game.

UML Domain Diagram

