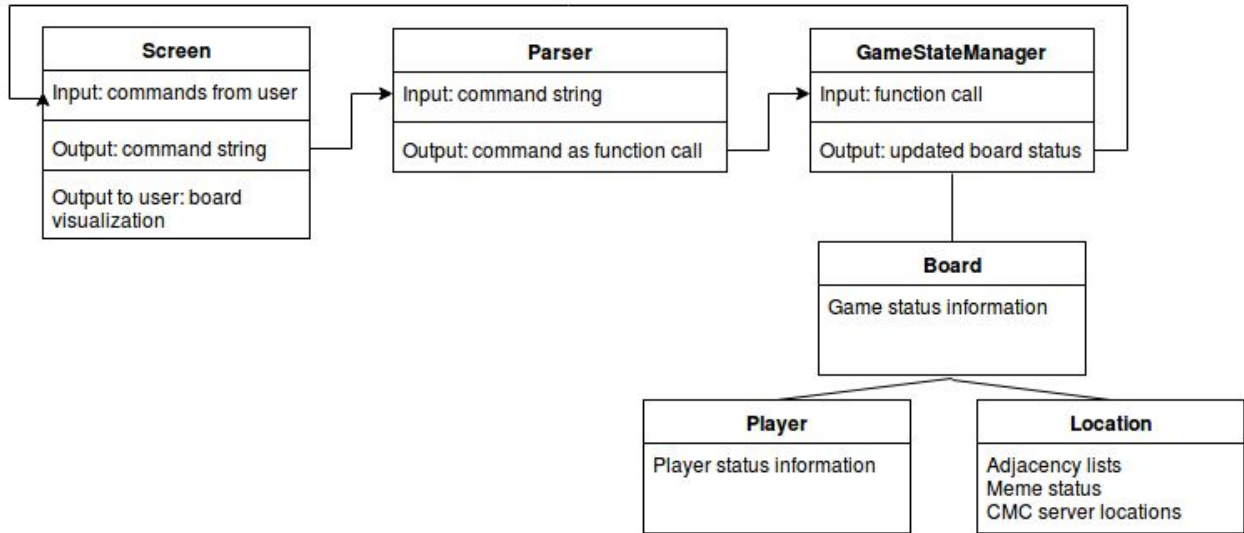


Incremental Testing and Regression Testing

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1.1



1.2

We chose the top-down approach because our main working class is the game logic module, which pulls from and updates all other modules; therefore it is logical to perform integration testing from this module.

2.0

Module - Main

Integration Testing

Defect	Description	Severity	How to Solve
1	cards.size was high than expected when playing with more than 1 player	med	Epidemic card insertion was being repeated for each player. Changed this statement to only be ran once, regardless of the number of players
2	Users could try to load from non-existent files and crash the game	low	Added additional checks to make sure files loaded actually exist
3	Main menu would not loop if players lost their game and wanted to play another	low	Put the main menu in a while loop so that it would repeat until the player quit
4	No way to return to menu options if no valid save files could be found	low	Provided a “CANCEL” option so players could backtrack in the menu

Regression Testing

Defect	Description	Severity	How to Solve
1	Segfault on game startup; deck was not getting initialized before player setup	high	Moved call to setupDeck() earlier in setupNewGame()

Module - Parser

Incremental Testing

Defect	Description	Severity	How to Solve
1	Players can end their turn without drawing 2 cards	low	Forcing players to draw two cards either during or after their turn, and discard cards if necessary.

Module - Board

Integration Testing

Defect	Description	Severity	How to Solve
1	Incorrect display of total card count when printing the board	low	Changed the print statement to the correct total number of cards
2	Board locations not correctly divided into groups	low	Created array to properly group board locations, useful to other functions

Regression Testing

Defect	Description	Severity	How to Solve
1	Game crashes when returning to menu	high	Change how board is initialized to remove the double delete call

Module - Location

Regression Testing

Defect	Description	Severity	How to Solve
1	Previous fix for Twitter adjacencies reverted, preventing players from accessing Twitter from adjacent locations	mid	Twitter's adjacencies were being attributed to Twitch - set them back to Twitter

Module - Game State Manager

Incremental Testing

Defect	Description	Severity	How to Solve
1	Ending a player's turn did not reset the action counter to 4	low	Added a call to setActionsRemaining to reset the actions remaining to 4 in the nextTurn function
2	OutbreakTracker incremented	med	Initialized outbreakTracker to 0

	above 8 after the first outbreak		instead of 8
3	OutbreakTracker incremented once for each adjacent location during an outbreak	med	Incremented outbreakTracker once before the for loop, not inside the for loop, preventing multiple increments
4	Moderator only banned memes one at a time	low	Fixed functionality when checking whether the current player is a Moderator or not, and if so, bans all remaining memes
5	Players can draw one card	low	Removed the ability to draw one card (can only draw two). Added a conditional statement where players must discard one card if they currently hold 6, and discard two cards if they currently hold seven.
6	endGame() function prints game over message multiple times	low	Rather than using a flag to determine if a win or lose condition is met, a new game is created immediately after a win or lose condition is met.
7	developMemeFilter() allowed user to specify the same card more than once	med	Added a check to ensure cards were not equal
8	Moderator banned one of a given meme rather than all of a given meme at the current location	low	Added a conditional checking if the current player role is moderator, and if so, reduced the meme count for the given meme to 0
9	OutbreakTrack was initialized to eight, resulting in instantly losing the game	med	Changed the initializing of OutbreakTrack during the creation of a game to 0 instead of 8
10	CMC server was missing conditions for being built	med	Added additional checks to prevent the player from building CMCs when they're not allowed to
11	Loading and saving missing access to key variables	med	Added variables in function call

12	Crashes during loading files because the deck of cards not yet initialized	high	Rearranged the game setup and player setup functions so that the players would not draw cards before the deck is initialized
13	Banning is not re-adding the cubes to the meme pool	med	Incremented during ban

Regression Testing

Defect	Description	Severity	How to Solve
1	Segfault when player runs out of cards. vector.size() returns unsigned int; calling player.size() - 1 would result in very large number that was out of bounds	high	Implement check for if the vector was size 0
2	Saving game adding extra comma to save file that would break it for loading	low	Removed the extra comma being written to the file if the deck contains 0 cards

Module - Screen

Incremental Testing

Defect	Description	Severity	How to Solve
1	Screen's private variables for gsm and parser were not having their values updated	high	Changed the variables to be references so that they would be the same variables accessed by other classes
2	No way to transmit a lot of messages to the player	low	Added global GSM "announcement" variable to output to player in the screen loop
3	Needed easy convert of roles from numbers to strings	low	Created new function to do this so players can see their roles
4	No message to player that they're about to lose from memes spreading	low	Created alert for when the supply of a meme is less than 4