Incremental Testing and Regression Testing

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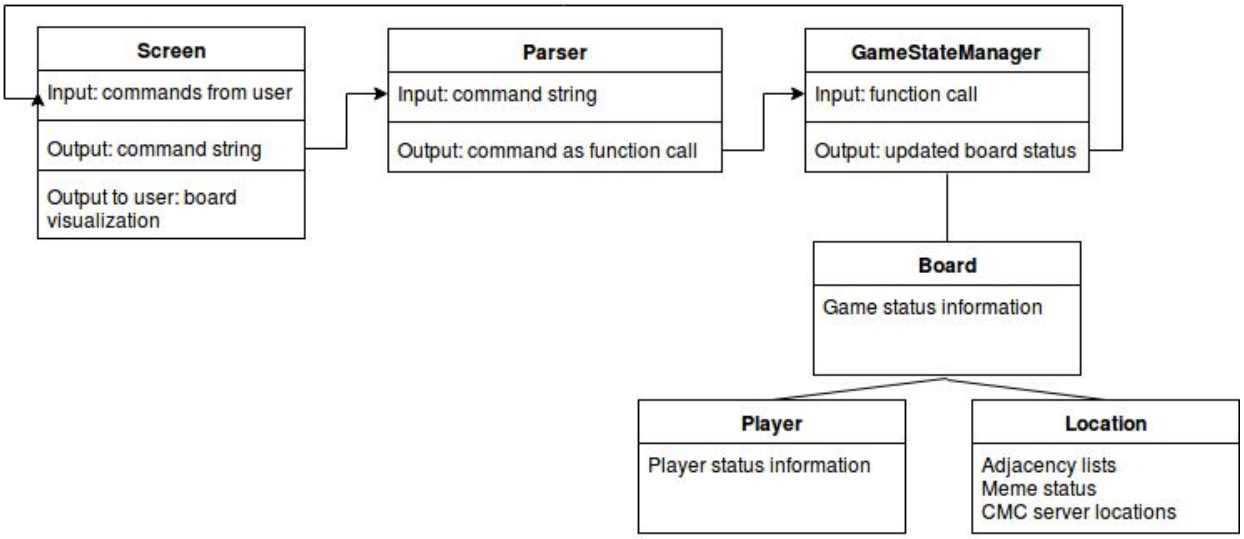
1.1



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 - Parser

Incremental Testing

Defect	Description	Severity	How to Solve
1	Passing empty strings for commands results in game crashing.	high	Solved by creating a new check in the parser to ignore empty lines and null strings.
2	Using the usage command but not providing an argument crashes the game.	med	Solved by creating additional parsing checks.
3	Providing an empty string crashes the game.	high	Solved by creating additional parsing checks.

Module - Players

Incremental Testing

Defect	Description	Severity	How to Solve
1	Constructor/setLocation methods took CardNames as input for location, whereas all other classes took int	low	Updated methods to accept int instead

Module - Board

Integration Testing

Defect	Description	Severity	How to Solve
1	OutbreakCounter was initialized to 2	low	Changed outbreak counter initialization to 0.
2	cures[] boolean array only tracked cured and not-cured, not eradicated memes	med	Changed bool cures[] to int cures[], where a value of 0 means not cured, a value of 1 means cured, and a value of 2 means eradicated
3	playerCards counter was being printed twice while printing the game board	low	Removed extra printPlayerCards() function call in printBoard().
4.	Viral Quotient was not correctly being outputted to the game board	low	Added missing communication with GSM to get value
5	Pointers being used by board were not being updated in sub-class functions	high	Changed pass by value constructors and functions to pass by reference

Regression Testing

Defect	Description	Severity	How to Solve
1	Fixing integration defect #2 broke the getCure() function, since the function was returning a bool	high	Changed getCure() function's return type from bool to int

	instead of an int		
2	Fixing integration defect #5 broke initialization of player locations	high	Initialized each player location to start in the Email location
3	GSM integration defect #3 would leave the board in an infinite loop	high	Added missing incrementation of the currentPlayer

Module - Location

Incremental Testing

Defect	Description	Severity	How to Solve
1	Trying to move to adjacent locations crashes the game.	high	Moved instantiation of the location class into the correct constructor.
2	Moving to Twitter trapped the player there	low	Instead of setting adjacencies for Twitter, Twitch's adjacencies were being set. Changed Twitch to Twitter when defining Twitter's values.

Regression Testing

Defect	Description	Severity	How to Solve
1	Fixing defect #1 in location integration test showed that players' locations were never updated when players moved.	med	When players moved, added functionality to save the players' new location.
2	Moving from Twitch allowed the player to move to certain non-adjacent locations	low	Twitch was having its adjacencies overwritten by integration defect #2, so fixing integration defect #2 also fixed this defect.

Module - Game State Manager

Incremental Testing

Defect	Description	Severity	How to Solve
1	User is allowed to make an infinite number of actions per turn	med	Fixed action tracking

2	Viral Quotient value was not properly being shared with Board and would not print	low	Added as a parameter
3	End turn was returning the wrong value and would never end turns	high	Changed the return value from 0 to 1

Module - Screen

Incremental Testing

Defect	Description	Severity	How to Solve
1	Entering a non-integer for player count would crash game-setup	high	Created stricter checks for single digit numerical inputs with a while loop to verify