

P5 Development Guide

CS414 - And Yet it Compiles

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1. Required Software:

- Java version 1.8 or higher
- Eclipse IDE for Java
- Apache Maven for Java
- Java Swing

2. Project File Structure:

- P1 : contains documents from the first iteration.
- P2 : contains documents from the second iteration.
- P3 : contains documents from the third iteration.
- P4 : contains documents from the fourth iteration.
- P5 : contains documents from the final iteration.
- src/main : contains source codes for the main software.
- src/test : contains JUnit tests for the main software.

3. Project Package Structure;

- *edu.colostate.cs.cs414.andyetitcompiles.p3.client* : contains client source codes for handling network communication.
- *edu.colostate.cs.cs414.andyetitcompiles.p3.common* : contains source codes for the jungle game model.
- *edu.colostate.cs.cs414.andyetitcompiles.p3.gui* : contains source codes for the JavaFX User Interface.
- *edu.colostate.cs.cs414.andyetitcompiles.p3.protocol* : contains source codes for the network model.
- *edu.colostate.cs.cs414.andyetitcompiles.p3.server* : contains server source codes for handling network communication.
- *edu.colostate.cs.cs414.andyetitcompiles.p3.test* : contains JUnit tests

4. Setting the development environment:

- 1) Download and install the latest version of Java from <https://java.com/download>
- 2) Download and install the eclipse IDE for Java developer from <https://www.eclipse.org/downloads/packages>

5. How to work on the project:

- 1) Open Eclipse
- 2) Open the import project from git wizard
- 3) Enter <https://github.com/tartona/cs414-f17-301-andyetitcompiles> as the clone uri, and fill in your github credentials
- 4) Create maven run configuration with goal "clean install"

- 5) Run the maven run configuration
- 6) Now everything is setup for general work on the project
 - a. If you want to run individual test classes, select the test class and Run As > JUnit test case
 - b. If you want to run the game logic, select common.JungleGame and Run As > Java application
 - c. If you want to run the client, select client.JungleClient and Run As > Java application
 - d. If you want to run a server, select server.JungleServer and Run As > Java application

6. How to Play the Game:

- 1) If the game running on your local machine, first launch an instance of the JungleServer run configuration.
- 2) The game can be launched from a jar file with the command `java -jar JungleClient.jar [server IP] [port number]`. Be sure to provide the server and port where JungleServer is running as an argument. If the server is running on your local computer, the arguments will be `localhost 22222`, since the server runs on port 22222 by default. If you are playing the game on our web server, the full command to run the game will be `java -jar JungleClient.jar 45.55.59.100 22222`.
Note: if you see the error "No X11 DISPLAY variable was set, but this program performed an operation which requires it", simply type the command `export DISPLAY=:0` and try to run the jar again.
Note 2: Make sure the client is ran from the command line, running it in eclipse does not work properly due to a module we are using. The server can be run from eclipse
- 3) Register or login to the system by following the instructions displayed in the console.
- 4) Find user and send invitation using 'find <username>' and 'invite'.
- 5) Find user and see user profile using 'find <username>' and 'profile'.
- 6) Once the invitation has accepted from the other player, the Jungle game will appear in a new window
- 7) If there multiple games are active, each game will appear in its own tab. This prevents excess windows from appearing and makes it simple for the user to view their current games
- 8) To make a move, click on a piece and then click on the tile that you would like to move it to. If an invalid move is attempted, the system will ask the user to try a different one.

7. How to Play the Tournament:

- 1) First, one of the user need to create a tournament using 'create <tournament-id> <maxplayer>' command.
- 2) After Step 1, use 'active' command to check if the tournament is created.
- 3) Once the tournament has created, join the tournament using 'join <tournament-id>' command.

- 4) From the console of the user who created the tournament, use 'start <tournament-id>' command to start the tournament.

Detailed Description of Commands for the tournament:

- create <tournament-id> <maxplayer> : create a tournament.
- join <tournament-id> : joining the tournament. The tournament should not be started, and the creator of the tournament needs to join as well.
- leave <tournament-id> : leaving the tournament. You cannot leave the tournament once it's begun.
- active : list all the tournament that are not started yet
- start <tournament-id> : start a tournament if there is more than 2 players. Only creator can start the tournament.
- end <tournament-id> : end the tournament immediately. All the unfinished games remain playable. Only creator can end the tournament.