

CS 301: Project Part B – Game Graphical User Interface

In this assignment you will construct a prototype of the main GUI for your game.

Specification

- [10%] As a team, create a text file named `actions.txt` that contains a complete list of the actions a player might take while playing your game. Examples of common actions that appear in many games: quit, pass, undo, move a piece, place a piece, play a card, draw a card, discard a card, select a space, roll the dice, make a bid, make an exchange, purchase a resource, offer a trade and accept a trade. It is likely your game will have actions that are unique to it. I recommend you read over the rules for your game to help you make this list.
- [20%] Each team member should individually design a GUI for your game by sketching it on a piece of paper or using a simple drawing program (e.g., Paint in Windows). Do not use Android Studio for this. Your drawing doesn't need to be pretty, just recognizable. Be certain to design your GUI so that the user can take each action you listed in the `actions.txt` file. For example, you might roll the dice by pressing a particular button. You might place a piece by dragging it from a common pool onto the board. Create a digital image of each team member's GUI drawing so you can turn it in with your project.
- [55%] Discuss the drawings with your team and, together, design a GUI for your game that you all agree on. Create an Android project that, when run, displays your GUI exactly as it might appear in mid-play. For example, if you were creating a chess game some pieces will not be in their starting positions. Some will be displayed off the board because they have been taken. The “scene” you choose to display should be deliberately selected so as to show off as many features of the interface as is possible. All graphics and text content should be present and should match the “scene” you are displaying.

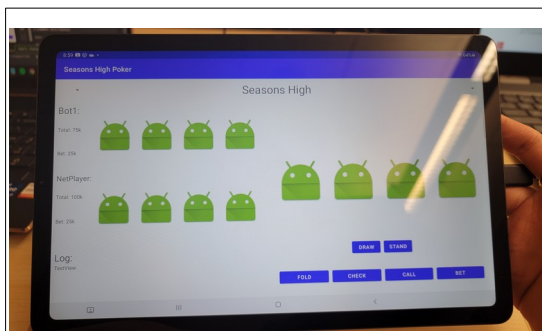


Figure 1: Unacceptable screen shot

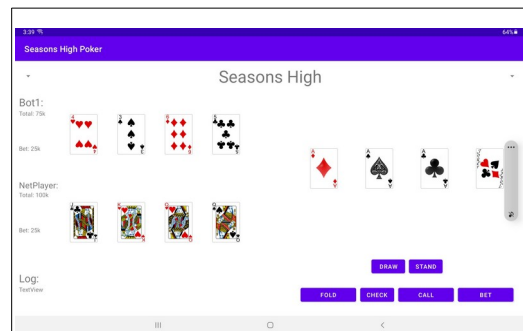


Figure 2: Acceptable screen shot

Additional information:

- Please leave the default names for the project files, specifically: `activity_main.xml` and `MainActivity.java`.
- The interface need not respond to user interaction in any way. Taps, button presses, drags, etc. can all be safely ignored.

- Your interface should display properly on your tablet. It need not resize gracefully on other devices. It only needs to display properly in one orientation: portrait or landscape.
 - Your interface should allow access to all the information a player will need during play. Examples: current score, elapsed time, current bid, whose turn it is, valid/invalid move indicators.
 - Your interface should not have lots of “windows” or “popup dialogs.” You generally should aim to have one interface to play your entire game. It’s fine to plan to have other screens for administrative tasks (e.g., a help screen or configuration dialog).
 - The game framework provides a game configuration interface that allows the user to select how many players there will be and what types (e.g., AI, human, or remote human via network). So your interface can assume this data is already known when it is displayed.
 - Your interface should not have any “placeholder” content for “stuff we plan to do later.” There is no later.
- [15% points] Follow the CS301 coding standard. Comments are not required in the .xml layout file but you should follow proper indentation and give appropriate id names to the views in your GUI.

Turning in this Assignment

You are responsible for following these instructions correctly. *Notice: Failure to follow these instructions correctly will hurt your grade.* It also will frustrate those who are grading the assignment.

Only one person per team should turn in the project. Follow these steps:

1. Create a folder that contains the name of your game and the correct UP userid of each member of your team. For example, the folder might be named:
Backgammon_jonesj27_smithk26_stein26
2. Place the following files into the folder:
 - The actions.txt file you created as a team.
 - The original GUI design created by each team member. If this was a pencil and paper sketch, feel free to submit a photo or scan of the sketch but do your best to make it as legible as possible for the grader. If the design was an electronic file, save it in a format that will be easy for the grader to view: .pdf, .png, or .jpg.
 - The activity_main.xml file you created. This will be buried several folders deep in your project and is probably best found by right clicking on it in the Project pane and selecting Open In → File Manager.
 - The MainActivity.java file from your project. This too will be buried deep in your project.
 - An image of the GUI that is rendered by your project. This can be a screenshot of the preview in AndroidStudio or a screenshot of the actual GUI as it appears on a tablet (your choice). Your image should be of sufficient quality to easily make out the details of your final product.
 - Nothing else! In particular, do not turn in your entire project even if there are image files that are needed for it to display properly.

3. Compress your folder into a .zip file.
4. Turn in the .zip file on the course website via the link provided.