
CO2001 Miniproject Discussion Document

Featured design principles:

- **Aesthetic and minimalistic design:**

This design principle relates to not showing niche or irrelevant information, so it is easier for the user to see what they need to and know how to interact with it intuitively. This is important as a cluttered UI can feel a burden to use and can waste time as the user may need to look more closely and read more text to understand how to use it.

My design focuses on large, clear buttons which are intuitively grouped and on occasion are accompanied by small help buttons to display a help dialog. This keeps the interface concise and easy to navigate while providing additional, optional help. Colours and the layout are used to group related elements, so the program doesn't need as much explicit instruction. The colour pallet is easy on the eyes and leaves text readable. There is an optional interactive tutorial built into the normal playing of a game which provides a new message each turn for the first few turns to explain the mechanics of the game.

- **Help users recognize, diagnose and recover from errors:**

This design principle is about providing useful, readable error messages to help the user understand what's gone wrong and more importantly how to rectify it.

In my game when errors occur, there are error dialog boxes to explain the issue. These include telling the user that the application doesn't have enough permissions to create player profile save files in the home directory, validating input such as usernames can't be blank, point goal can't be negative and more. This tells the user what they must change or do to solve the problem.

- **Visibility of system status:**

Any system should always give the user any information they may need about the current state of that system, so that they can interact with it properly. Without this they'd have no way of knowing what, if anything was happening

The system is constantly telling the user about what's going on. For example, on the register player page there is a preview of the selected profile picture. This is much more prevalent on the game screen where the user is kept updated about the score of each player, including their last rolls and last turns score. The user is also informed, via name bolding and button enabling, which players turn it is as well as, via a crown icon, which player is winning. They are also kept informed on more long-term things such as the total wins a player has this game session or even over their whole 'career'.

Additional Documentation:

It is possible to play a game without registering a user by using the 2 default players [player 1] and [player 2]. Additional players can be created, including with a profile picture, by clicking register player in the menu. They can be registered for a single session or saved as a file in /user.home/DiceMania for use across sessions. Custom pictures can be selected although the game only saves their file location so if they are moved or deleted they will not display in game.

Ticking the show tutorial check box will make it so that when you play a game informative messages will be displayed over the first round to explain the basic mechanics of the game and how to read the information presented.

I made this program on a 4k display so for me the text looks much smaller in comparison to everything else. I did spend some time on a lab computer to make sure it still looked presentable, but the final changes were made on my computer.

No external resources are needed to run the jar. The resources needed to run it from an IDE are including in the folder hciProject. These resources are packaged into the jar file.