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# Point

The point of my work is to create a way to simulate one’s room in order determine the most optimal layout of the furniture without trial and error with actual furniture

# Software

The development environment is called IntelliJ Idea. Uses Java 16. Any libraries used such as JFrame are included with the IDE. You may also use the program through the .jar file with the same name.

# Description

## Mechanics

The first thing the user is greeted with is a terminal in which the user inputs the size of the grid. Anywhere between 1 and 10 in full integers. Each number is then multiplied by 100 thus creating the spaces. After the size of the grid is determined, a window opens with the graphics. All updates are done through the terminal with a series of commands.

# Manual

## Set Grid Size

At the very beginning the user gets to choose between the numbers 1, 10 and all integers in between. If given an incorrect input, the number automatically sets itself to 1. After being set the numbers get multiplied by 100 to set the number of squares in the grid.

## Add Object

With the add command the user may add an object. The required inputs are the name of the object, its colour, width, length and the x, y coordinates.

## Remove Object

With the use of the remove command the user may remove any existing object by entering its name.

## Move Object

With the move command one may identify an object and may then move it to wherever on the grid.

## Resize Object

Using the resize command the user after identifying an existing object can alter its size.

## List

Using the list command the user can list all existing objects with their information.

## Clear

Using the clear command the user may clear the grid of all existing objects.

## Exit

Using the exit command the user may exit the program.

# Conclusion

All systems work successfully and swiftly, however there may be some redundant code. The code is merely a setup for new updated like splitting the logic and graphics into 2 threads. One method however seems to not be working correctly and that is the check bounds method, it doesn’t work for the outer left and outer bottom side of the window. Shall be fixed soon

# Sources

All of my code is either taken from previous projects or produces by my mind alone

# Photo

