



# CST 283

## Programming Assignment 2

Winter 2020  
Instructor: T. Klingler

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### Objective

This program provides an opportunity to build a Java class and user interface to manage a simple dice game.

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### Overview & Instructions

Build a simple dice game with a JavaFX-based user interface.

Choose a simple dice game or make up your own. One (of many) links for ideas would be:

- <https://icebreakerideas.com/dice-games/>

A classic programming challenge is the game of "Pig" but there are other similarly appropriate ideas. Or, feel free to make up your own game. You may anchor it as two-player or one-player (or either). There is a large degree of latitude in the game choice. These and similar decisions are up to you.

Your solution should include two class files: First, include a *front-end* class with a basic user interface (text field(s), buttons, labels, etc.). Please use JavaFX Alert actions (instead of JOptionPane dialogs), if appropriate. Add buttons as needed to "roll", "stop", or "play again". Be sure to include clear instructions and controls from a user's perspective for starting, playing, and ending the game.

Next, build a class to manage your game. This *back-end* class requires a more object oriented approach. Host all of the game data and actions behind-the-scenes in the game object. This implies that button clicks in the front-end driver will trigger method calls (get, set, etc.) to the object that defines the game rules, data, and behaviors.

Finally here is already a large amount of Java code available on the web (or from previous semesters). Please be careful not to utilize existing game code that someone else has created.

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### Deliverables

**Deliver** the following to the online course management system **Assignment** dropbox:

- **Upload** your **source code** (.java) files

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### Notice

This is an individual assignment. You must complete this assignment on your own. You may not discuss your work in detail with anyone except the instructor. You may not acquire from any source (e.g., another student or an internet site), a partial or complete solution to a problem or project that has been assigned. You may not show another student your solution to an assignment. You may not have another person (current student, former student, tutor, friend, anyone) "walk you through" how to solve the assignment.

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