

Project 2 – Craps (30 Points)
CS151 – Dr. Shaffer
Due: Tuesday October 17, 2000

1 Introduction

Reminder: Projects are individual work as discussed in class.

Write a program that plays craps with the user. The rules to craps are:

The player rolls two dice (each dice has six faces with 1 to 6 spots). If the sum of the dice is 7 or 11 on the first throw, the player wins. If the sum is 2, 3, or 12 on the first throw (called *craps*), the player loses (the “house” wins). If the sum is 4, 5, 6, 9 or 10 on the first throw then that sum becomes the player’s *point* and to win the player must continue rolling the dice until she *makes her point* (the sum of the two dice is equal to her point). The player loses by rolling a 7 before making her point.

Your program must:

- use random numbers to generate the dice values
- notify the user if they won or lost and prompt them to see if they wish to play again
- include at least one function definition (for example, a function which rolls the dice and returns the sum). The function(s) must be well thought out, not just tossed in to receive credit.

2 Extra credit suggestions

Some suggestions for getting a few extra credit points on this project:

- Keep track of the players balance (give them some money to start with, let them bet, and keep track of how much money they have and how much the house has won/lost).
- Allow multiple players to bet on a single role (this is pretty challenging)
- Determine the player’s odds of success by playing thousands of games (without user interaction) and keeping track of how many the user wins. Their odds of success equal the number the player won divided by the total number of games played. (If you attempt this version make sure you hand in your original version, with user interaction, too).