

OS Project Two Report

Design and Implementation Overview

I used c++ and installed pthreads into visual studios. From there I created five threads, four of them were players, the other was the dealer, each player given an id, that corresponded to a condition that each waited at until “handed”(signaled) the dice. The dealer choses(signals) a player at random to start the rotation. They would roll the dice and store their sum into a global variable for their player. After their roll, the player waits for the dealer to check if their team won. If not they would pass on in the order A, B, C, D. This continues until the dealer sees a win and exits the program. During the entire game, it was all documented to a txt file titled: report.

Runs

SEED: 0

Player A: gets 4 and 6 with a sum of 10
Player B: gets 1 and 2 with a sum of 3
Player C: gets 4 and 2 with a sum of 6
Player D: gets 2 and 2 with a sum of 4
Player A: gets 4 and 6 with a sum of 10
Player B: gets 3 and 1 with a sum of 4
Dealer: The winning team is B and D!

SEED:12345456

Player C: gets 2 and 4 with a sum of 6
Player D: gets 6 and 4 with a sum of 10
Player A: gets 6 and 6 with a sum of 12
Player B: gets 3 and 3 with a sum of 6
Player C: gets 5 and 3 with a sum of 8
Player D: gets 6 and 6 with a sum of 12
Player A: gets 6 and 5 with a sum of 11
Player B: gets 6 and 3 with a sum of 9
Player C: gets 1 and 4 with a sum of 5
Player D: gets 2 and 5 with a sum of 7
Player A: gets 2 and 1 with a sum of 3
Player B: gets 5 and 4 with a sum of 9

Player C: gets 4 and 1 with a sum of 5
Player D: gets 6 and 6 with a sum of 12
Player A: gets 6 and 2 with a sum of 8
Player B: gets 3 and 3 with a sum of 6
Player C: gets 2 and 5 with a sum of 7
Player D: gets 4 and 2 with a sum of 6
Dealer: The winning team is B and D!

SEED: 987554

Player D: gets 2 and 6 with a sum of 8
Player A: gets 5 and 5 with a sum of 10
Player B: gets 6 and 5 with a sum of 11
Player C: gets 3 and 3 with a sum of 6
Player D: gets 4 and 3 with a sum of 7
Player A: gets 1 and 5 with a sum of 6
Dealer: The winning team is A and C!

SEED:19

Player B: gets 5 and 2 with a sum of 7
Player C: gets 5 and 1 with a sum of 6
Player D: gets 2 and 3 with a sum of 5
Player A: gets 1 and 2 with a sum of 3
Player B: gets 3 and 5 with a sum of 8
Player C: gets 5 and 1 with a sum of 6
Player D: gets 6 and 6 with a sum of 12
Player A: gets 3 and 3 with a sum of 6
Dealer: The winning team is A and C!

SEED:67676767

Player B: gets 4 and 6 with a sum of 10
Player C: gets 2 and 4 with a sum of 6
Player D: gets 5 and 2 with a sum of 7
Player A: gets 3 and 3 with a sum of 6
Dealer: The winning team is A and C!