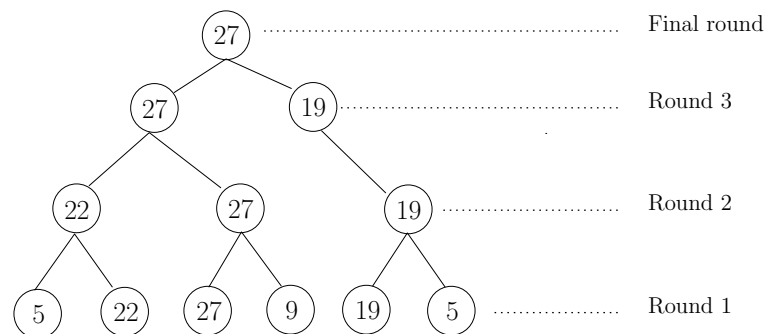


Programming Assignment 1

*Arindam Karmakar***0.1 Write C/C++/Python code for the following problems:**

The tournament search is a knockout (elimination) tournament where there are many players that play matches. A match is played between two players. Each match compares the players, and the winner advances to the next round to play the next match. In each round, each player plays exactly one match. In any round, a player can automatically qualify for the next round if there are no other player to play. The hierarchy continues until the final match determines the ultimate winner. See the example below.

Examples:

Tournament Tree

In your code, you should incorporate the following:

- the input should be taken from a file
- input sequence has to be generated randomly using any `random()` function in your programming language
- the output should print the list of players in each of the rounds
- you will get extra credit if you can create a visualization of the tournament tree