RESOURCES:

Snakes.txt - file containing snakes info
Ladders.txt - file containing ladders info

VARIABLES:

player[n] (structure of players)
option (taken as input - dice number)
long_snakes (read from Snakes.txt)
long_snakes_length (read from Snakes.txt)
small_snakes (read from Snakes.txt)
small_snakes_length (read from Snakes.txt)
long_ladders (read from Ladders.txt)
long_ladders_length (read from Ladders.txt)
small_ladders (read from Ladders.txt)
small_ladders_length (read from Ladders.txt)
long_snakes_pos[long_snakes] (read from Snakes.txt)
small_snakes_pos[small_snakes] (read from Snakes.txt)
long_ladders_pos[long_ladders] (read from Snakes.txt)
small_ladders_pos[small_ladders] (read from Snakes.txt)
i=0 (variable for iteration)
input_store[3] = {0, 0, 0} (for storing input to check the 3 sixes case)
j=0 (variable to help store the value of inputs)

ALGORITHM:

```
// structs and function 1 to take input from file
for(i of n) {
      input(players[i].name)
      player[i].position = 0
}
// search function to search for 100 in player[i].position and return
boolean value
while(search(player)) {
      input(options);
      // starting from here code belongs to function 2
      if(options>6 || options <1) {
            print(please enter a number between 1-6)
            continue
      }
      else if(options == 6) {
            // starting from here code belongs to function 3
            input_store[0] = options
            print(Yay! You gave a six. Now you get a free chance for
            another dice throw)
            input(options)
            if(options == 6) {
                  input_store[1] = options
                  print(Yay! You gave another six. Now you get a free
                  chance for another dice throw)
                  input(options)
                  if(options == 6) {
                        print(Oops! You gave another six, which made
                        three sixes in a row. You get another chance, but
                        these three sixes will be cancelled)
                        input(options)
                        input_store[0] = 0
                        input_store[1] = 0
                        return function 3(options)
                  }
                  else {
                        return 1;
```

```
                }
            }
            else {
                input[0] = 0
            }
            // uptil here code belongs to function 3

        }
        else {
            if(players[i]+options<=100) {
                players[i]+=options
                if(players[i] in long_snakes_pos) {
                    players[i]-=long_snakes_length
                }
                else if(players[i] in small_snakes_pos) {
                    players[i]-=small_snakes_length
                }
                else if(players[i] in long_ladders_pos) {
                    players[i]+=long_ladders_length
                }
                else if(players[i] in small_ladders_pos) {
                    players[i]+=small_ladders_length
                }
            }
            else {
                print(Sorry this input will make u go beyond 100)
                continue
            }
            if(i==3) {
                i=0;
            }
            else {
                i++;
            }
        }
        // uptil here code belongs to function 2
}
for(int i=0; i<4; i++) {
```

```
      if(players[0]==100) {
            print(Winner is ${player[0]})
      }
}
```