



To Write:

- ★ Use loops to Pass turns
- ★ `random()`, `srandom(SEED)`: gives unpredictable sequence of nums
- ★ After getting user\_input, set the seed in `srand()`
- ★ Use if else to check correct user\_input
- ★ Each player rolls till: roll SIDE, Win game =  $\geq 100$  points
  - Pass turn ↓
  - End Game when  $\text{Point}[i] \geq 100$  & return names[i]
- ★ need to track each player's points
  - Use integer array to keep points

TIPS

- ★ `%d = int`, `%c = char`, `%f = float`  
`%s = char*`, `%u = unsigned`
- ★ Use `random()` % 7 to roll Pig
- ★ `seed < 0 || seed > (UINT_MAX)`
- ★ if (`Pig[random()] % 7 == SIDE`)
- ★ `names[10] = { 'wilbur', ... }`  
`points[10] = { 0, 0, ... }`

Pseudo code:

Take user\_input  
 if (#check for correct input)  
 else (default to prompt)

Set Player #s, seeds;

Create int array to track points + designate to players  
 assign points to each position ??? #SIDE=0, JUELE=5

While (Players[i] has points[i]  $\leq 100$ )

for (Player[i] rolling)

if (pos != SIDE)

Print current player, keep rolling, update scores ???

else  
 Pass to Player [i+1]

if end of the game  
 Print winner's name.

where empty ???

**Purpose:** The idea of this game is to take a user input for number of players as well as a "Seed" number to put inside `random()`. If the user inputs fail the criteria/requirement we auto set players to 2, and seed to 2021. Right after, we create a dice using random generated sequences of number but restrict the boundaries to  $(0-6) = 7$  indexes, each for 1/7 positions of the Pig/dice. Then we make an array that keeps scores for the corresponding # of players. We also make an array for the positions, of Pig and names of players. Now for the game, until there is no winner we keep the game going. Start with the 1st player, they keep rolling and adding points until they roll a `SIDE = 0` points, or game over. If player rolls a `SIDE` and not at 100 points, the turn switches to the next player and same story goes on then back to Player 1. Once a player reaches 100 game is over.

## Description of Program:

1. use i/o to get user-inputs
2. use if else to make sure program can take care of erroneous inputs
3. make 2 arrays [10] for names + points
4. use while loop to keep game going
5. use for loops to cycle through players by rolling
6. use for loops to give + update players' points
7. end while loop once any players reached 100
8. Print winner's name



# Final Design

Changes and re write of the psuado codes

~~Algorithm~~

- Enumerate Positions and Assignate
- make points array for each side
- make array to describe the landing position (string)
- take user inputs for # players & seed
- Check for input errors
- assign user input to both variables
- ~~as~~ create sudo-random generator
- create int array for scores; keeps track of players points
- while loop set to infinite
  - do (roll & add points to players' scores)
    - while (player doesn't roll snake and scores are  $< 100$ )
  - Check if player has reached 100 or more
    - Congratulate
- move to next player; if reached end of players go back to the first