Summary + Rules

First ask for the number of players.
Make sure its a valid number
Ask for a number of seed
Make sure its a valid number
Make a loop that will not break unless there's only one player left with a non-zero life
Print out what round we are in
Iterate through the players
Each player rolls two dice
If the player rolled two 5, add a life to the right and left
Print out which characters gained a life
Else if not a midnight
Print out what they rolled
Check which character has the lowest rolls
Print out who has the lowest rolls and say they have to drink the garlic
Subtract 1 more counter of players alive
Print out how many lives they have left
Increment the round
Once the players alive is one
Print out the winner

Design Ideas

```
1.) Ask for number of players and make sure it's correct
    a.) Lives = {3,3,3,3,3,3,3,3,3,3}
    b.) Main function ()
        i.) Players = int(input("Number of players: "))
            (1) If players  < 2 or players > 10:
                (a) print("Invalid number of players.")
            (2) Else:
                (a) Seeds = int(input("Number of seeds"))
                (b) If  seeds < 0 or seed > s^32 -1:
                    (i) print("Invalid number of seeds.")
            (3) While  alive != 0:
                (a) For i in names:
                (b) Increment the number of round
                (c) Print out the round number
                (d) If live[i] != 0, roll both of the dice
                (e) Print out what they rolled
                (f) Check which player has the lowest roll
                (g)  Whoever has the lowest roll, subtract a life
                (h) Print out the loser
                (i) Print out their lives
                (j) If someone rolls two 6, call the right and left function
                (k) Print out which characters got an extra life
```

```
(i)   i+= 1
        1. print("Round", i)
        2. If lives[i] != 0:
              a. rolls()
              b. Print (names[i], rolls[1])
```

Pseudocode

# == comments

```
#Ask for a valid user input and seed number
user_input = int(input("Number of players:"))
seed= int(input("Random seed:"))
#number of rounds
rounds = 0

#array of players
players= [" Alec ", " Bree ", " Carmen ", " Demetri ", " Edward ",
" Felix ", " Garrett ", " Heidi ", " Irina ", " Jane "]
#array of lives
lives= [3,3,3,3,3,3,3,3,3,3]


#function to check user_input
Def user (user_input):
      if type(user_input) == str:
            print("Invalid number of players.")
      else:
      if user_input >= 2 and user_input <= 10:
            print("Number of players:", user_input)
      else:
            print("Invalid number of players.")
user()
Def Seeds(seed):
#checks the type of "seed" input and makes sure it's in the correct bound
if type(seed) == str:
 print("Invalid random seed.")
else:
 if seed >= 0 and seed <= 2147483648:
   print("Random seed:", seed)
 else:
   print("Invalid random seed.")
Seeds()
```

```
Def Rolling(seeds, players, lives);
while rounds <= seed:
  dice1= 0
  dice2 = 0
  dice_num = 0
  Rounds = 0
  for i in players:
    print("Rounds", rounds)
    print(players)
    rounds +=1
    for j in lives:
      if j != 0:
        dice1 = random.randint(1, 6)
        dice2 = random.randint(1, 6)
        dice_num = dice1 + dice2
        min.append(dice_num)
        if dice1 == 6 and dice2 ==6:
        lives[[players[i+1]+1]]
        lives[[players[i-1]+1]]
          j += 1
      else:
        j  = j -1
```

Updates I made to my design while I coded

- My original flow:
    - Ask for user input
        - If correct ask for seed
            - If incorrect, terminate
            - If correct, play the game!
                - While alive is bigger than 1:
                    - Print the round
                    - Increment the round
                    - Iterate through the amount of players playing
                        - If lives > 0
                            - Roll dice
                            - Check who has the min roll

```
                            ○ Print out who has the min
                              roll as the loser of the
                              round
                            ○ Subtract one from their
                              lives
                            ○ If lives == 0
                                ■ Print out they dead
                            ○ Elese
                                ■ Iif lives == 1:
                                ■ Print out live
                                ■ Else
                                ■ Print out lives
                    ■ Check if midnight happened
                    ■ Print out who the winner is
● My outflow flow/updated flow
    ○ Ask for user input
        ■ If correct ask for seed, else terminate
        ■ If incorrect, terminate
        ■ If seed is correct, play the game!
        ■ While players playing is bigger than 1:
            ● Print the round
            ● Iterate through the amount of players playing
                ○ If lives > 0
                    ■ Roll dice
                    ■ Store the rolls
                    ■ If midnight happens
                        ● Calc left and right players
                        ● Add lives to left and right
                        ● Check if L/R players were dead or
                          alive
                            ○ If dead increment my while
                              loop counter, printout
                              resurrects
                            ○ Else , print out sparkles
                    ■ If not midnight
                        ● Print Out what normal things
                    ■ Check for min
```

- Store the index of min
- Check for “winner”
  - Store its index
- If condition of for loop is met:
  - Decrement the index of min roll’s live
  - Print who has to eat garlic
  - Reset winner/loser counters
  - If one live left
    - Print out with life
  - If more than one left
    - Print out with lives
  - If lives == 0
    - Print out they dead
  - If players playing == 1
    - Printout who won the game
  - Increment round

- Summary of what I did different:
  - When I first started designing my game, I planned to do everything inside my nested loops. I also didn’t think about keeping track of the winner, and was checking for midnight last.
  - After a lot of errors I decided to first do one round at a time and increment the round at the end instead. I also decided to check for midnight first. I also decided to check for the min roll / winner inside my for loop that kept track of each player's rolls because it made more sense/ was easier for me to understand. Similar to how I kept track of the loser, I kept track of the winnert. I also didn’t really understand Midnight at first because the asgn1 document didn’t have that example but after playing a few rounds on paper I was able to get a better understanding of it. Overall, I feel like I was not being very specific enough when I first started implementing my code on paper because I was missing very important details (i.e. when to subracts players who died and when to add when they came back to life). Next time I know now that I should be very detail, the much the better, that way I see exactly the oder/flow of my logic.