Assignment 1 – Pass the Pigs

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Purpose

This program is a practice program to gauge the programmers skills and ability to write in C. This program is very simple using basic programming approaches.

How to Use the Program

Pass the pig is a game where the player(s) take turn rolling a asymmetrical die(odd sided) named the "pig". The players will start off assigning each number to a set of game rules shown on the table below. The players set a side of a die to each of the positions with respects to the probability. You add points every time you land on it and do the next action. First person to reach 100 points wins.

Position	Probability	Points	Next Action
Jowler	2/7	5	rolls again
Razorback	1/7	10	rolls again
Trotter	1/7	10	rolls again
Snouter	1/7	15	rolls again
Side	2/7	0	Next player rolls

this[1][2][3].

Program Design

Audience: Write this section for someone who will maintain your program. In industry you maintain your own programs, and so your audience could be future you! List the main data structures and the main algorithms. You are answering the basic question, "How is this thing organized so that I can have a chance of fixing it?". This section will be longer for a more complicated program and shorter for a less complicated program.

Data Structures

Describe your data structures here.

Algorithms

Want to show some pseudocode? Use the framed verbatim text shown above.

```
bubble sort algorithm
    loop from i = 0 to n - 1
        loop from j = i + 1 to n - 1
            if a[i] > a[j] then
                swap a[i] and a[j]
```

Function Descriptions

For each function in your program, you will need to explain your thought process. This means doing the following

- The inputs of every function (even if it's not a parameter)
- The outputs of every function (even if it's not the return value)
- The purpose of each function, a brief description about a sentence long.
- For more complicated functions, include psuedocode that describes how the function works
- For more complicated functions, also include a description of your decision making process; why you chose to use any data structures or control flows that you did.

Do not simply use your code to describe this. This section should be readable to a person with little to no code knowledge.

Results

Audience: Write this section for the graders. If you completed only part of the assignment, explain that here.

To write this section, use your code according to its intended purpose. Does it successfully achieve everything it should? Is anything lacking? Could anything be improved? Talk about all of that here, and use your code's output to prove it.

You can include screenshots of program output, as I have in Fig. 1.

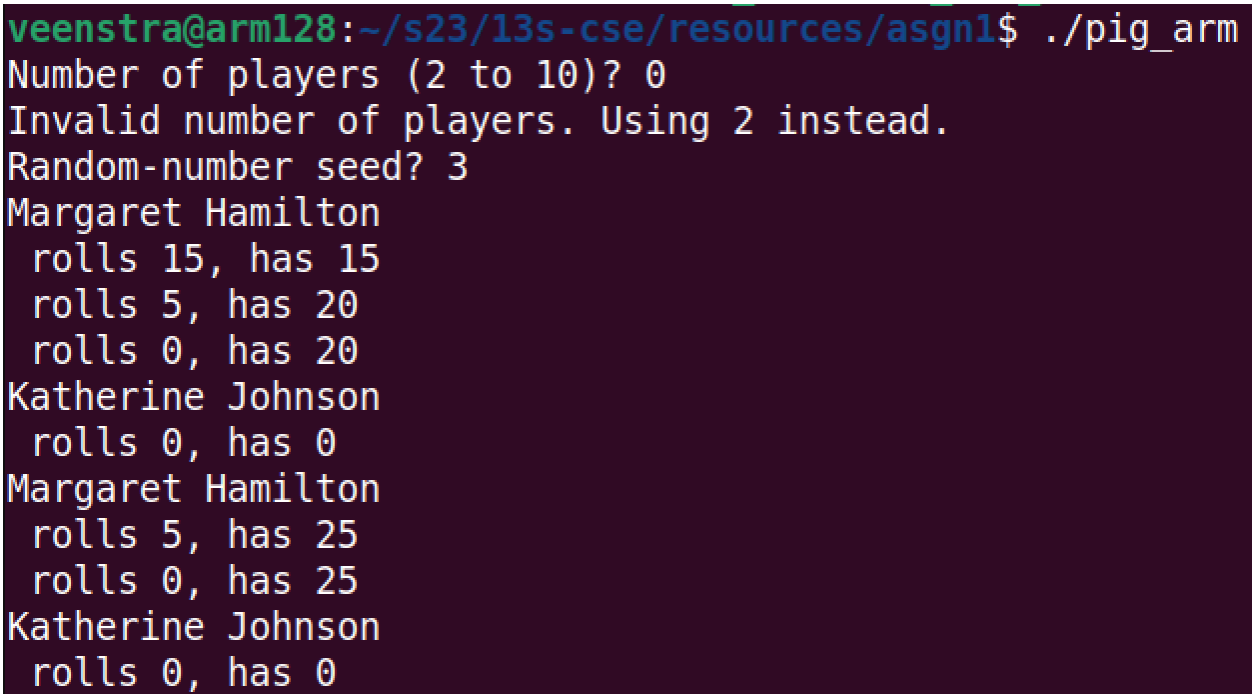

Figure 1: Screenshot of the program running.

References

[1] Wikipedia contributors. C (programming language) — Wikipedia, the free encyclopedia. https://en.wikipedia.org/wiki/C_(programming_language), 2023. [Online; accessed 20-April-2023].

[2] Robert Mecklenburg. *Managing Projects with GNU Make, 3rd ed.* O'Reilly, Cambridge, Mass., 2005.

[3] Walter R. Tschinkel. Just scoring points. *The Chronicle of Higher Education*, 53(32):B13, 2007.