Quiz 1: Process life cycle and scheduling

Due date: midnight of Sunday Feb 12, 2022

**[Question 1]**  In your own words, define the following terms in one sentence:

* Operating System:

An operating system is a system program that acts as the “intermediary” between the hardware and software of the computer with It containing many of the important operations for running a computer that come with its kernel (which we will define later), as well as sometimes having more features that provide the user with better ease of use such as a GUI and/or counsel.

* Throughput:

Throughput is number of processes completed per each timestep of the CPU and can be used as a way to measure efficiency of a CPU

* Response time:

This is the time spent from the ready state and getting the CPU for the first time.

**[Question 2]** Name one problem concerning fairness that could occur with FCFS CPU scheduling?

With FCFS processes it can be unfair to processes with a short burst time (working time)

**[Question 3]** Regarding the C code below, answer the following question:

A screenshot of a computer

Description automatically generated with medium confidence

1. What line of code moves the process from the running state to the waiting state?

Scanf() line 9.

1. What line of code moves the process from the running state to the terminate (zombie) state?

Return 0; (line 15)

1. What line of code results in a system-call?
2. In which part of the process memory map would the main function be allocated? (Options: text, data, heap, stack)

The main functions data is allocated on the stack however the actual code is located in the text

**[Submission]**

Add your answered document to the *Quizzes* directory in your shared folder on Drive (you received an invitation to your Drive directory last week.  Check your emails).