



الاسم: فراس سمير سليم

الرقم الجامعي: AD0039

جامعة الإسراء
ISRA UNIVERSITY

Operating system

CPU Scheduling_Homework#1

Q.1. Consider the following set of processes:

Process ID	Arrival Time	CPU Burst Time
P ₀	2	2
P ₁	0	5
P ₂	1	4

a) Draw Gantt charts illustrating the execution of these processes using FCFS



b) Based on your work above, fill in the table below giving both the **waiting time (Wait)** and **turnaround time (tat)** for each process:

Scheduling Algorithm	Parameter	Process ID		
		P ₀	P ₁	P ₂
FCFS	Wait	9 - 2 = 7 ms	0 - 0 = 0 ms	5 - 1 = 4 ms
	tat	11 - 2 = 9 ms	5 - 0 = 5 ms	9 - 1 = 8 ms

c) Calculate the CPU utilization.

$$\begin{aligned}\text{CPU utilization} &= \frac{\text{فترة الانتظار}}{\text{الزمن الكلي}} \times 100\% \\ &= \frac{11}{11} \times 100\% \\ &= 100\%\end{aligned}$$