Operációs rendszerek Bsc

7.gyak

2021.03.24

Készítette:
Szabó Bálint Bsc
Programtervező informatikus
EJX162

1. feladat

RR nélkül

	A process		B process		C process		D process		Reschedule	
Clock tick	p_uspri	p_cpu	p_uspri	p_cpu	p_uspri	p_cpu	p_uspri	p_cpu	running before	running after
Starting point	60	0	60	0	60	0	60	0	A	A
1	60	1	60	0	60	0	60	0	A	A
...	...	...	...	...	...	...	...	...	A	A
99	60	99	60	0	60	0	60	0	A	A
100	73	50	60	0	60	0	60	0	A	B
101	73	50	60	1	60	0	60	0	B	B
...	...	...	...	...	...	...	...	...		
199	73	50	60	99	60	0	60	0	B	B
200	66	25	73	50	60	0	60	0	B	C
201	66	25	73	50	60	1	60	0	C	C

p_cpu = 100/0,5 = 50

p_uspri(1) = P_USER+50 / 4 + 2 * p_nice = 73

p_uspri(2) = P_USER+25 / 4 + 2 * p_nice = 66

RR-rel

	A process		B process		C process		D process		Reschedule	
Clock tick	p_uspri	p_cpu	p_uspri	p_cpu	p_uspri	p_cpu	p_uspri	p_cpu	running before	running after
Starting point	60	0	60	0	60	0	60	0	A	A
1	60	1	60	0	60	0	60	0	A	A
...	...	...	...	...	...	...	...	...	A	A
9	60	9	60	0	60	0	60	0	A	A
10	60	10	60	0	60	0	60	0	A	B
...	...	...	...	...	...	...	...	...	...	...
19	60	10	60	9	60	0	60	0	B	B
20	60	10	60	10	60	0	60	0	B	C
...	...	...	...	...	...	...	...	...	...	...
29	60	10	60	10	60	9	60	0	C	C
30	60	10	60	10	60	10	60	0	C	D
39	60	10	60	10	60	10	60	9	D	D
40	60	10	60	10	60	10	60	10	D	A
50	60	20	60	10	60	10	60	10	A	B
60	60	20	60	20	60	10	60	10	B	C
70	60	20	60	20	60	20	60	10	C	D
80	60	20	60	20	60	20	60	20	D	A
90	60	30	60	20	60	20	60	20	A	B
100	67	26	67	26	64	17	64	27	B	C
...	...	...	...	...	...	...	...	...	...	...
199	67	46	67	46	64	37	64	46	D	D
200	70	39	70	39	68	31	70	40	D	A
201	70	40	70	39	68	31	70	40	A	A

100. óraütésnél:

- KF = 2*FK / 2*FK+1 = (2*3) / (2*3+1) = 0,85
- A p_cpu = 30 * 0,85 = 26 — A p_uspri = 60 + (26/4) = 67
- B p_cpu = 30 * 0,85 = 26 — B p_uspri = 60 + (26/4) = 67
- C p_cpu = 20 * 0,85 = 17 — C p_uspri = 60 + (17/4) = 64
- D p_cpu = 20 * 0,85 = 17 — D p_uspri = 60 + (17/4) + 10 = 74

200. óraütésnél:

- KF = 2*FK / 2*FK+1 = (2*3) / (2*3+1) = 0,85
- A p_cpu = 30 * 0,85 = 39 — A p_uspri = 60 + (26/4) = 70
- B p_cpu = 30 * 0,85 = 39 — B p_uspri = 60 + (26/4) = 70
- C p_cpu = 20 * 0,85 = 31 — C p_uspri = 60 + (17/4) = 68
- D p_cpu = 20 * 0,85 = 40 — D p_uspri = 60 + (17/4) + 10 = 70

2. feladat