Paging algorithms for virtual memory

Implement an application that demonstrates the functioning of different page replacement algorithms for virtual memory in computers. The following algorithms should be supported: FIFO, LRU, Second Chance, LFU, and Optimal algorithm.

The application allows the user to input the number of memory frames as well as the total number of memory references of the pages involved in the simulation. After that, the user inputs the numerical labels of the pages that participate in the simulation in order and selects one or more algorithms that will participate in the simulation. Then the simulation is run, and the results, as well as the number of Page Faults, i.e., the efficiency of individual algorithms, are displayed to the user. An example (of what the simulation might look like):

Unesite broj okvira: **3**

Unesite broj referenci: **20**

Unesite reference: **1, 2, 3, 4, 2, 1, 5, 6, 2, 1, 2, 3, 7, 6, 3, 2, 1, 2, 3, 6**

Izaberite algoritme: **FIFO**

…

Rezultati simulacije:

FIFO

1	2	3	4	2	1	5	6	2	1	2	3	7	6	3	2	1	2	3	6
PF	**PF**	**PF**	**PF**		**PF**	**PF**	**PF**	**PF**	**PF**		**PF**	**PF**	**PF**		**PF**	**PF**		**PF**	**PF**
1	2	3	**4**	4	**1**	**5**	**6**	**2**	**1**	1	**3**	**7**	**6**	6	**2**	**1**	1	**3**	**6**
	1	2	3	3	4	1	5	6	2	2	1	3	7	7	6	2	2	1	3
		1	2	2	3	4	1	5	6	6	2	1	3	3	7	6	6	2	1

Efikasnost algoritma: PF = 16 => pf = 16 / 20 = 80%