

Artsiom Skarakhod

Lab 2

Output Unix Emulator:

```
angry@XPS13 /home/oshw2
$ ./hi input10 0
*****
***** First Come First Server *****
*****
pID    arrival BurstT  Priot  finishT waitT  turnAT  respT  NoOfContext
1      0         10      37     |10.0    0.0     10.0    0.0     0
2      1         3       0      |13.0    9.0     12.0    9.0     0
3      2         8       51     |21.0    11.0    19.0    11.0    0
4      4         4       84     |25.0    17.0    21.0    17.0    0
5      5         5       44     |30.0    20.0    25.0    20.0    0
6      6         7       28     |37.0    24.0    31.0    24.0    0
7      9         2       97     |39.0    28.0    30.0    28.0    0
8     10         6       70     |45.0    29.0    35.0    29.0    0
9     13         1       15     |46.0    32.0    33.0    32.0    0
10    15         9       7      |55.0    31.0    40.0    31.0    0
Average CPU Burst Time = 5.5ms  Average TurnAround Time = 25.6ms
Average Waiting Time = 20.1ms  Average Response Time = 20.1ms
Number of Context Switches = 0
```

```
angry@XPS13 /home/oshw2
$ ./hi input10 1
*****
***** Shortest Process First *****
*****
pID    arrival BurstT  Priot  finishT waitT  turnAT  respT  NoOfContext
1      0         10      37     |10.0    0.0     10.0    0.0     0
2      1         3       0      |15.0    11.0    14.0    11.0    0
3      2         8       51     |46.0    36.0    44.0    36.0    0
4      4         4       84     |20.0    12.0    16.0    12.0    0
5      5         5       44     |25.0    15.0    20.0    15.0    0
6      6         7       28     |38.0    25.0    32.0    25.0    0
7      9         2       97     |12.0    1.0     3.0     1.0     0
8     10         6       70     |31.0    15.0    21.0    15.0    0
9     13         1       15     |16.0    2.0     3.0     2.0     0
10    15         9       7      |55.0    31.0    40.0    31.0    0
Average CPU Burst Time = 5.5ms  Average TurnAround Time = 20.3ms
Average Waiting Time = 14.8ms  Average Response Time = 14.8ms
Number of Context Switches = 0
```

```
angry@XPS13 /home/oshw2
```

```
$ ./hi input10 2
```

```
*****
```

```
***** Highest Priority First *****
```

```
*****
```

```
*****
```

pID	arrival	BurstT	PrioT	finishT	waitT	turnAT	respT	NoOfContext
1	0	10	37	31.5	21.5	31.5	0.0	2
2	1	3	0	4.5	0.5	3.5	0.5	0
3	2	8	51	44.5	34.5	42.5	34.5	0
4	4	4	84	54.5	46.5	50.5	46.5	0
5	5	5	44	36.5	26.5	31.5	26.5	0
6	6	7	28	15.0	2.0	9.0	0.5	1
7	9	2	97	56.5	45.5	47.5	45.5	0
8	10	6	70	50.5	34.5	40.5	34.5	0
9	13	1	15	14.5	0.5	1.5	0.5	0
10	15	9	7	24.0	0.0	9.0	0.0	0

```
Average CPU Burst Time = 5.5ms Average TurnAround Time = 26.7ms
```

```
Average Waiting Time = 21.2ms Average Response Time = 18.9ms
```

```
Number of Context Switches = 3
```

```
angry@XPS13 /home/oshw2
```

```
$ ./hi input10 3 4
```

```
*****
```

```
***** Round Robin *****
```

```
***** Time Quantum:4 *****
```

```
*****
```

pID	arrival	BurstT	PrioT	finishT	waitT	turnAT	respT	NoOfContext
1	0	10	37	47.5	37.5	47.5	0.0	2
2	1	3	0	7.5	3.5	6.5	3.5	0
3	2	8	51	40.0	30.0	38.0	5.5	1
4	4	4	84	16.0	8.0	12.0	8.0	0
5	5	5	44	48.5	38.5	43.5	15.5	1
6	6	7	28	51.5	38.5	45.5	19.0	1
7	9	2	97	31.5	20.5	22.5	20.5	0
8	10	6	70	53.5	37.5	43.5	21.5	1
9	13	1	15	41.0	27.0	28.0	27.0	0
10	15	9	7	59.0	35.0	44.0	26.0	2

```
Average CPU Burst Time = 5.5ms Average TurnAround Time = 33.1ms
```

```
Average Waiting Time = 27.6ms Average Response Time = 14.65ms
```

```
Number of Context Switches = 8
```

angry@XPS13 /home/oshw2

\$ ./hi input10 3 16

\*\*\*\*\*

\*\*\*\*\* Round Robin \*\*\*\*\*

\*\*\*\*\* Time Quantum:16 \*\*\*\*\*

\*\*\*\*\*

pID	arrival	BurstT	PrioT	finishT	waitT	turnAT	respT	NoOfContext
1	0	10	37	10.0	0.0	10.0	0.0	0
2	1	3	0	13.0	9.0	12.0	9.0	0
3	2	8	51	21.0	11.0	19.0	11.0	0
4	4	4	84	25.0	17.0	21.0	17.0	0
5	5	5	44	30.0	20.0	25.0	20.0	0
6	6	7	28	37.0	24.0	31.0	24.0	0
7	9	2	97	39.0	28.0	30.0	28.0	0
8	10	6	70	45.0	29.0	35.0	29.0	0
9	13	1	15	46.0	32.0	33.0	32.0	0
10	15	9	7	55.0	31.0	40.0	31.0	0

Average CPU Burst Time = 5.5ms      Average TurnAround Time = 25.6ms

Average Waiting Time = 20.1ms      Average Response Time = 20.1ms

Number of Context Switches = 0

Output for the input100 file FCFS

61	83	21	53		568.0	464.0	485.0	464.0	0
62	84	4	60		89.0	1.0	5.0	1.0	0
63	86	12	83		169.0	71.0	83.0	71.0	0
64	88	40	56		1614.0	1486.0	1526.0	1486.0	0
65	90	26	50		758.0	642.0	668.0	642.0	0
66	92	4	65		101.0	5.0	9.0	5.0	0
67	94	32	84		1106.0	980.0	1012.0	980.0	0
68	96	11	91		142.0	35.0	46.0	35.0	0
69	98	6	79		107.0	3.0	9.0	3.0	0
70	99	7	12		114.0	8.0	15.0	8.0	0
71	101	39	40		1574.0	1434.0	1473.0	1434.0	0
72	103	33	87		1205.0	1069.0	1102.0	1069.0	0
73	104	26	86		784.0	654.0	680.0	654.0	0
74	105	29	60		922.0	788.0	817.0	788.0	0
75	106	37	60		1382.0	1239.0	1276.0	1239.0	0
76	108	45	72		2174.0	2021.0	2066.0	2021.0	0
77	109	34	89		1273.0	1130.0	1164.0	1130.0	0
78	111	31	88		1012.0	870.0	901.0	870.0	0
79	113	29	77		951.0	809.0	838.0	809.0	0
80	114	18	28		364.0	232.0	250.0	232.0	0
81	116	36	31		1309.0	1157.0	1193.0	1157.0	0
82	118	2	22		127.0	7.0	9.0	7.0	0
83	119	18	77		382.0	245.0	263.0	245.0	0
84	121	40	38		1654.0	1493.0	1533.0	1493.0	0
85	123	17	22		292.0	152.0	169.0	152.0	0
86	125	4	68		131.0	2.0	6.0	2.0	0
87	126	47	48		2266.0	2093.0	2140.0	2093.0	0
88	128	19	75		401.0	254.0	273.0	254.0	0
89	129	21	25		589.0	439.0	460.0	439.0	0
90	130	31	92		1043.0	882.0	913.0	882.0	0
91	131	26	50		810.0	653.0	679.0	653.0	0
92	132	1	22		143.0	10.0	11.0	10.0	0
93	133	15	77		225.0	77.0	92.0	77.0	0
94	135	31	19		1074.0	908.0	939.0	908.0	0
95	137	2	82		145.0	6.0	8.0	6.0	0
96	139	21	35		610.0	450.0	471.0	450.0	0
97	140	45	55		2219.0	2034.0	2079.0	2034.0	0
98	141	23	67		655.0	491.0	514.0	491.0	0
99	142	36	80		1345.0	1167.0	1203.0	1167.0	0
100	144	37	42		1419.0	1238.0	1275.0	1238.0	0
Average CPU Burst Time = 25.1ms				Average TurnAround Time = 802.83ms					
Average Waiting Time = 777.73ms				Average Response Time = 777.73ms					
Number of Context Switches = 0									

# Input100 Algorithm SPF

60	82	21	87		547.0	444.0	465.0	444.0	0
61	83	21	53		568.0	464.0	485.0	464.0	0
62	84	4	60		89.0	1.0	5.0	1.0	0
63	86	12	83		169.0	71.0	83.0	71.0	0
64	88	40	56		1614.0	1486.0	1526.0	1486.0	0
65	90	26	50		758.0	642.0	668.0	642.0	0
66	92	4	65		101.0	5.0	9.0	5.0	0
67	94	32	84		1106.0	980.0	1012.0	980.0	0
68	96	11	91		142.0	35.0	46.0	35.0	0
69	98	6	79		107.0	3.0	9.0	3.0	0
70	99	7	12		114.0	8.0	15.0	8.0	0
71	101	39	40		1574.0	1434.0	1473.0	1434.0	0
72	103	33	87		1205.0	1069.0	1102.0	1069.0	0
73	104	26	86		784.0	654.0	680.0	654.0	0
74	105	29	60		922.0	788.0	817.0	788.0	0
75	106	37	60		1382.0	1239.0	1276.0	1239.0	0
76	108	45	72		2174.0	2021.0	2066.0	2021.0	0
77	109	34	89		1273.0	1130.0	1164.0	1130.0	0
78	111	31	88		1012.0	870.0	901.0	870.0	0
79	113	29	77		951.0	809.0	838.0	809.0	0
80	114	18	28		364.0	232.0	250.0	232.0	0
81	116	36	31		1309.0	1157.0	1193.0	1157.0	0
82	118	2	22		127.0	7.0	9.0	7.0	0
83	119	18	77		382.0	245.0	263.0	245.0	0
84	121	40	38		1654.0	1493.0	1533.0	1493.0	0
85	123	17	22		292.0	152.0	169.0	152.0	0
86	125	4	68		131.0	2.0	6.0	2.0	0
87	126	47	48		2266.0	2093.0	2140.0	2093.0	0
88	128	19	75		401.0	254.0	273.0	254.0	0
89	129	21	25		589.0	439.0	460.0	439.0	0
90	130	31	92		1043.0	882.0	913.0	882.0	0
91	131	26	50		810.0	653.0	679.0	653.0	0
92	132	1	22		143.0	10.0	11.0	10.0	0
93	133	15	77		225.0	77.0	92.0	77.0	0
94	135	31	19		1074.0	908.0	939.0	908.0	0
95	137	2	82		145.0	6.0	8.0	6.0	0
96	139	21	35		610.0	450.0	471.0	450.0	0
97	140	45	55		2219.0	2034.0	2079.0	2034.0	0
98	141	23	67		655.0	491.0	514.0	491.0	0
99	142	36	80		1345.0	1167.0	1203.0	1167.0	0
100	144	37	42		1419.0	1238.0	1275.0	1238.0	0
Average CPU Burst Time = 25.1ms				Average TurnAround Time = 802.83ms					
Average Waiting Time = 777.73ms				Average Response Time = 777.73ms					
Number of Context Switches = 0									

# Input100 Algorithm PP

55	76	50	20	626.5	500.5	550.5	500.5	0
56	77	8	48	1053.5	968.5	976.5	968.5	0
57	78	44	6	225.5	103.5	147.5	103.5	0
58	79	8	45	1031.5	944.5	952.5	944.5	0
59	80	48	86	2114.5	1986.5	2034.5	1986.5	0
60	82	21	87	2161.5	2058.5	2079.5	2058.5	0
61	83	21	53	1173.5	1069.5	1090.5	1069.5	0
62	84	4	60	1434.5	1346.5	1350.5	1346.5	0
63	86	12	83	2034.5	1936.5	1948.5	1936.5	0
64	88	40	56	1275.5	1147.5	1187.5	1147.5	0
65	90	26	50	1126.5	1010.5	1036.5	1010.5	0
66	92	4	65	1569.5	1473.5	1477.5	1473.5	0
67	94	32	84	2066.5	1940.5	1972.5	1940.5	0
68	96	11	91	2314.5	2207.5	2218.5	2207.5	0
69	98	6	79	1879.5	1775.5	1781.5	1775.5	0
70	99	7	12	310.0	204.0	211.0	204.0	0
71	101	39	40	924.5	784.5	823.5	784.5	0
72	103	33	87	2194.5	2058.5	2091.5	2058.5	0
73	104	26	86	2140.5	2010.5	2036.5	2010.5	0
74	105	29	60	1463.5	1329.5	1358.5	1329.5	0
75	106	37	60	1500.5	1357.5	1394.5	1357.5	0
76	108	45	72	1760.5	1607.5	1652.5	1607.5	0
77	109	34	89	2303.5	2160.5	2194.5	2160.5	0
78	111	31	88	2269.5	2127.5	2158.5	2127.5	0
79	113	29	77	1840.5	1698.5	1727.5	1698.5	0
80	114	18	28	708.5	576.5	594.5	576.5	0
81	116	36	31	744.5	592.5	628.5	592.5	0
82	118	2	22	628.5	508.5	510.5	508.5	0
83	119	18	77	1858.5	1721.5	1739.5	1721.5	0
84	121	40	38	885.5	724.5	764.5	724.5	0
85	123	17	22	645.5	505.5	522.5	505.5	0
86	125	4	68	1667.5	1538.5	1542.5	1538.5	0
87	126	47	48	1100.5	927.5	974.5	927.5	0
88	128	19	75	1811.5	1664.5	1683.5	1664.5	0
89	129	21	25	690.5	540.5	561.5	540.5	0
90	130	31	92	2413.0	2252.0	2283.0	2252.0	0
91	131	26	50	1152.5	995.5	1021.5	995.5	0
92	132	1	22	646.5	513.5	514.5	513.5	0
93	133	15	77	1873.5	1725.5	1740.5	1725.5	0
94	135	31	19	516.5	350.5	381.5	350.5	0
95	137	2	82	2019.5	1880.5	1882.5	1880.5	0
96	139	21	35	765.5	605.5	626.5	605.5	0
97	140	45	55	1235.5	1050.5	1095.5	1050.5	0
98	141	23	67	1592.5	1428.5	1451.5	1428.5	0
99	142	36	80	1991.5	1813.5	1849.5	1813.5	0
100	144	37	42	1023.5	842.5	879.5	842.5	0
Average CPU Burst Time = 25.1ms				Average TurnAround Time = 1232.27ms				
Average Waiting Time = 1207.17ms				Average Response Time = 1152.66ms				
Number of Context Switches = 6								

# Input100 Round Robing Algorithm 4

60	82	21	87	2001.5	1898.5	1919.5	243.5	5
61	83	21	53	2002.5	1898.5	1919.5	247.0	5
62	84	4	60	338.5	250.5	254.5	250.5	0
63	86	12	83	1116.0	1018.0	1030.0	257.0	2
64	88	40	56	2676.5	2548.5	2588.5	259.5	9
65	90	26	50	2228.0	2112.0	2138.0	266.5	6
66	92	4	65	365.0	269.0	273.0	269.0	0
67	94	32	84	2410.0	2284.0	2316.0	275.5	7
68	96	11	91	1141.5	1034.5	1045.5	278.0	2
69	98	6	79	780.0	676.0	682.0	280.5	1
70	99	7	12	787.5	681.5	688.5	288.5	1
71	101	39	40	2683.5	2543.5	2582.5	291.0	9
72	103	33	87	2564.5	2428.5	2461.5	298.0	8
73	104	26	86	2243.5	2113.5	2139.5	301.5	6
74	105	29	60	2420.0	2286.0	2315.0	305.0	7
75	106	37	60	2684.5	2541.5	2578.5	308.5	9
76	108	45	72	2786.5	2633.5	2678.5	315.5	11
77	109	34	89	2575.5	2432.5	2466.5	319.0	8
78	111	31	88	2436.5	2294.5	2325.5	321.5	7
79	113	29	77	2442.0	2300.0	2329.0	328.5	7
80	114	18	28	1831.0	1699.0	1717.0	332.0	4
81	116	36	31	2584.0	2432.0	2468.0	334.5	8
82	118	2	22	461.5	341.5	343.5	341.5	0
83	119	18	77	1837.5	1700.5	1718.5	342.5	4
84	121	40	38	2695.0	2534.0	2574.0	345.0	9
85	123	17	22	1843.0	1703.0	1720.0	352.0	4
86	125	4	68	483.5	354.5	358.5	354.5	0
87	126	47	48	2789.5	2616.5	2663.5	357.5	11
88	128	19	75	1850.5	1703.5	1722.5	364.5	4
89	129	21	25	2091.5	1941.5	1962.5	368.0	5
90	130	31	92	2458.5	2297.5	2328.5	371.5	7
91	131	26	50	2301.5	2144.5	2170.5	379.5	6
92	132	1	22	516.0	383.0	384.0	383.0	0
93	133	15	77	1587.5	1439.5	1454.5	383.0	3
94	135	31	19	2466.0	2300.0	2331.0	385.5	7
95	137	2	82	531.5	392.5	394.5	392.5	0
96	139	21	35	2110.5	1950.5	1971.5	392.5	5
97	140	45	55	2790.5	2605.5	2650.5	400.5	11
98	141	23	67	2118.0	1954.0	1977.0	404.0	5
99	142	36	80	2604.5	2426.5	2462.5	407.5	8
100	144	37	42	2705.0	2524.0	2561.0	410.0	9
Average CPU Burst Time = 25.1ms				Average TurnAround Time = 1785.68ms				
Average Waiting Time = 1760.59ms				Average Response Time = 203.615ms				
Number of Context Switches = 569								



58	79	8	45	851.0	764.0	772.0	764.0	0
59	80	48	86	2475.0	2347.0	2395.0	771.0	2
60	82	21	87	1904.0	1801.0	1822.0	785.5	1
61	83	21	53	1909.0	1805.0	1826.0	801.0	1
62	84	4	60	904.5	816.5	820.5	816.5	0
63	86	12	83	926.5	828.5	840.5	828.5	0
64	88	40	56	2483.0	2355.0	2395.0	838.5	2
65	90	26	50	1935.5	1819.5	1845.5	853.0	1
66	92	4	65	963.5	867.5	871.5	867.5	0
67	94	32	84	1951.5	1825.5	1857.5	869.5	1
68	96	11	91	991.0	884.0	895.0	884.0	0
69	98	6	79	997.0	893.0	899.0	893.0	0
70	99	7	12	1004.0	898.0	905.0	898.0	0
71	101	39	40	2490.0	2350.0	2389.0	903.0	2
72	103	33	87	2491.0	2355.0	2388.0	922.5	2
73	104	26	86	1994.5	1864.5	1890.5	938.0	1
74	105	29	60	2007.5	1873.5	1902.5	953.5	1
75	106	37	60	2496.0	2353.0	2390.0	969.0	2
76	108	45	72	2509.0	2356.0	2401.0	983.5	2
77	109	34	89	2511.0	2368.0	2402.0	999.0	2
78	111	31	88	2072.0	1930.0	1961.0	1013.5	1
79	113	29	77	2085.0	1943.0	1972.0	1028.0	1
80	114	18	28	2087.0	1955.0	1973.0	1043.5	1
81	116	36	31	2515.0	2363.0	2399.0	1058.0	2
82	118	2	22	1209.0	1089.0	1091.0	1089.0	0
83	119	18	77	2115.5	1978.5	1996.5	1090.0	1
84	121	40	38	2523.0	2362.0	2402.0	1104.5	2
85	123	17	22	2133.0	1993.0	2010.0	1119.0	1
86	125	4	68	1262.5	1133.5	1137.5	1133.5	0
87	126	47	48	2538.0	2365.0	2412.0	1136.5	2
88	128	19	75	2152.5	2005.5	2024.5	1151.0	1
89	129	21	25	2157.5	2007.5	2028.5	1166.5	1
90	130	31	92	2172.5	2011.5	2042.5	1182.0	1
91	131	26	50	2182.5	2025.5	2051.5	1197.5	1
92	132	1	22	1346.0	1213.0	1214.0	1213.0	0
93	133	15	77	1361.0	1213.0	1228.0	1213.0	0
94	135	31	19	2198.5	2032.5	2063.5	1242.5	1
95	137	2	82	1396.0	1257.0	1259.0	1257.0	0
96	139	21	35	2203.5	2043.5	2064.5	1257.0	1
97	140	45	55	2551.0	2366.0	2411.0	1272.5	2
98	141	23	67	2227.0	2063.0	2086.0	1288.0	1
99	142	36	80	2555.0	2377.0	2413.0	1303.5	2
100	144	37	42	2560.0	2379.0	2416.0	1318.0	2

Average CPU Burst Time = 25.1ms  
 Average Waiting Time = 1577.45ms  
 Number of Context Switches = 108

Average TurnAround Time = 1602.55ms  
 Average Response Time = 655.89ms

Input100 RR 64



58	79	8	45	1485.0	1398.0	1406.0	1398.0	0
59	80	48	86	1533.0	1405.0	1453.0	1405.0	0
60	82	21	87	1554.0	1451.0	1472.0	1451.0	0
61	83	21	53	1575.0	1471.0	1492.0	1471.0	0
62	84	4	60	1579.0	1491.0	1495.0	1491.0	0
63	86	12	83	1591.0	1493.0	1505.0	1493.0	0
64	88	40	56	1631.0	1503.0	1543.0	1503.0	0
65	90	26	50	1657.0	1541.0	1567.0	1541.0	0
66	92	4	65	1661.0	1565.0	1569.0	1565.0	0
67	94	32	84	1693.0	1567.0	1599.0	1567.0	0
68	96	11	91	1704.0	1597.0	1608.0	1597.0	0
69	98	6	79	1710.0	1606.0	1612.0	1606.0	0
70	99	7	12	1717.0	1611.0	1618.0	1611.0	0
71	101	39	40	1756.0	1616.0	1655.0	1616.0	0
72	103	33	87	1789.0	1653.0	1686.0	1653.0	0
73	104	26	86	1815.0	1685.0	1711.0	1685.0	0
74	105	29	60	1844.0	1710.0	1739.0	1710.0	0
75	106	37	60	1881.0	1738.0	1775.0	1738.0	0
76	108	45	72	1926.0	1773.0	1818.0	1773.0	0
77	109	34	89	1960.0	1817.0	1851.0	1817.0	0
78	111	31	88	1991.0	1849.0	1880.0	1849.0	0
79	113	29	77	2020.0	1878.0	1907.0	1878.0	0
80	114	18	28	2038.0	1906.0	1924.0	1906.0	0
81	116	36	31	2074.0	1922.0	1958.0	1922.0	0
82	118	2	22	2076.0	1956.0	1958.0	1956.0	0
83	119	18	77	2094.0	1957.0	1975.0	1957.0	0
84	121	40	38	2134.0	1973.0	2013.0	1973.0	0
85	123	17	22	2151.0	2011.0	2028.0	2011.0	0
86	125	4	68	2155.0	2026.0	2030.0	2026.0	0
87	126	47	48	2202.0	2029.0	2076.0	2029.0	0
88	128	19	75	2221.0	2074.0	2093.0	2074.0	0
89	129	21	25	2242.0	2092.0	2113.0	2092.0	0
90	130	31	92	2273.0	2112.0	2143.0	2112.0	0
91	131	26	50	2299.0	2142.0	2168.0	2142.0	0
92	132	1	22	2300.0	2167.0	2168.0	2167.0	0
93	133	15	77	2315.0	2167.0	2182.0	2167.0	0
94	135	31	19	2346.0	2180.0	2211.0	2180.0	0
95	137	2	82	2348.0	2209.0	2211.0	2209.0	0
96	139	21	35	2369.0	2209.0	2230.0	2209.0	0
97	140	45	55	2414.0	2229.0	2274.0	2229.0	0
98	141	23	67	2437.0	2273.0	2296.0	2273.0	0
99	142	36	80	2473.0	2295.0	2331.0	2295.0	0
100	144	37	42	2510.0	2329.0	2366.0	2329.0	0
Average CPU Burst Time = 25.1ms				Average TurnAround Time = 1181.46ms				
Average Waiting Time = 1156.36ms				Average Response Time = 1156.36ms				
Number of Context Switches = 0								

Tested in Putty

```

skarakha@csci-gnode-02:~/OSHW2
Password:
Password will expire in 10 days
Last login: Wed Oct  7 15:34:39 2020 from ucdencsegrid01.ucdenver.pvt
[skarakha@csci-gnode-02 ~]$ cd OSHW2
[skarakha@csci-gnode-02 ~/OSHW2]$ make
g++ -o sched main1.cpp
[skarakha@csci-gnode-02 ~/OSHW2]$ ls
input10  main1.cpp  makefile  sched
[skarakha@csci-gnode-02 ~/OSHW2]$ ./sched input10 0
*****
***** First Come First Server *****
*****
pID      arrival BurstT  PrioT   finishT waitT   turnAT  respT   NoOfContext
1         0         10      37      |10.0    0.0     10.0    0.0     0
2         1         3        0      |13.0    9.0     12.0    9.0     0
3         2         8       51      |21.0   11.0     19.0   11.0     0
4         4         4       84      |25.0   17.0     21.0   17.0     0
5         5         5       44      |30.0   20.0     25.0   20.0     0
6         6         7       28      |37.0   24.0     31.0   24.0     0
7         9         2       97      |39.0   28.0     30.0   28.0     0
8        10         6       70      |45.0   29.0     35.0   29.0     0
9        13         1       15      |46.0   32.0     33.0   32.0     0
10       15         9        7      |55.0   31.0     40.0   31.0     0
Average CPU Burst Time = 5.5ms  Average TurnAround Time = 25.6ms
Average Waiting Time = 20.1ms  Average Response Time = 20.1ms
Number of Context Switches = 0
[skarakha@csci-gnode-02 ~/OSHW2]$ ./sched input10 1
*****
***** Shortest Process First *****
*****
pID      arrival BurstT  PrioT   finishT waitT   turnAT  respT   NoOfContext
1         0         10      37      |10.0    0.0     10.0    0.0     0
2         1         3        0      |15.0   11.0     14.0   11.0     0
3         2         8       51      |46.0   36.0     44.0   36.0     0
4         4         4       84      |20.0   12.0     16.0   12.0     0
5         5         5       44      |25.0   15.0     20.0   15.0     0
6         6         7       28      |38.0   25.0     32.0   25.0     0
7         9         2       97      |12.0    1.0      3.0    1.0     0
8        10         6       70      |31.0   15.0     21.0   15.0     0
9        13         1       15      |16.0    2.0      3.0    2.0     0
10       15         9        7      |55.0   31.0     40.0   31.0     0
Average CPU Burst Time = 5.5ms  Average TurnAround Time = 20.3ms
Average Waiting Time = 14.8ms  Average Response Time = 14.8ms
Number of Context Switches = 0
[skarakha@csci-gnode-02 ~/OSHW2]$ █

```

```

[skarakha@csci-gnode-01 ~]$ cd OSHW2
[skarakha@csci-gnode-01 ~/OSHW2]$ make
g++ -o sched main1.cpp
[skarakha@csci-gnode-01 ~/OSHW2]$ ./sched input10 2
*****
***** Highest Priority First *****
*****
pID      arrival BurstT  PrioT   finishT waitT   turnAT  respT   NoOfContext
1         0         10      37      |31.5    21.5    31.5    0.0     2
2         1         3       0       |4.5     0.5     3.5     0.5     0
3         2         8       51      |44.5    34.5    42.5    34.5    0
4         4         4       84      |54.5    46.5    50.5    46.5    0
5         5         5       44      |36.5    26.5    31.5    26.5    0
6         6         7       28      |15.0    2.0     9.0     0.5     1
7         9         2       97      |56.5    45.5    47.5    45.5    0
8        10         6       70      |50.5    34.5    40.5    34.5    0
9        13         1       15      |14.5    0.5     1.5     0.5     0
10       15         9       7       |24.0    0.0     9.0     0.0     0
Average CPU Burst Time = 5.5ms  Average TurnAround Time = 26.7ms
Average Waiting Time = 21.2ms  Average Response Time = 18.9ms
Number of Context Switches = 3
[skarakha@csci-gnode-01 ~/OSHW2]$ ./sched input10 3 4
*****
***** Round Robin *****
***** Time Quantum:4 *****
*****
pID      arrival BurstT  PrioT   finishT waitT   turnAT  respT   NoOfContext
1         0         10      37      |47.5    37.5    47.5    0.0     2
2         1         3       0       |7.5     3.5     6.5     3.5     0
3         2         8       51      |40.0    30.0    38.0    5.5     1
4         4         4       84      |16.0    8.0     12.0    8.0     0
5         5         5       44      |48.5    38.5    43.5    15.5    1
6         6         7       28      |51.5    38.5    45.5    19.0    1
7         9         2       97      |31.5    20.5    22.5    20.5    0
8        10         6       70      |53.5    37.5    43.5    21.5    1
9        13         1       15      |41.0    27.0    28.0    27.0    0
10       15         9       7       |59.0    35.0    44.0    26.0    2
Average CPU Burst Time = 5.5ms  Average TurnAround Time = 33.1ms
Average Waiting Time = 27.6ms  Average Response Time = 14.65ms
Number of Context Switches = 8
[skarakha@csci-gnode-01 ~/OSHW2]$

```