C:\Users\HP\Desktop\OS-Project>g++ final.cpp C:\Users\HP\Desktop\OS-Project>a.exe Enter Memory Size: 2000 Enter the number of processes: 9 Enter process details as stated: Process ID: 1 Process Arrival Time: 0 Process Lifetime: 200 No of segments of Process: 2 Enter size of segments separated by space: 200 200 Process ID: 2 Process Arrival Time: 0 Process Lifetime: 2000 No of segments of Process: 1 Enter size of segments separated by space: 200 Process ID: 3 Process Arrival Time: 0 Process Lifetime: 200 No of segments of Process: 2 Enter size of segments separated by space: 200 100 Process ID: 4 Process Arrival Time: 0 Process Lifetime: 2000 No of segments of Process: 1 Enter size of segments separated by space: 100 Process ID: 5 Process Arrival Time: 0 Process Lifetime: 200 No of segments of Process: 3 Enter size of segments separated by space: 200 200 100 Process ID: 6 Process Arrival Time: 0 Process Lifetime: 2000 No of segments of Process: 1 Enter size of segments separated by space: 400 Process ID: 7 Process Arrival Time: 500 Process Lifetime: 1500 No of segments of Process: 2 Enter size of segments separated by space: 300 500 Process ID: 8 Process Arrival Time: 600 Process Lifetime: 1500 No of segments of Process: 3 Enter size of segments separated by space: 200 200 200 Process ID: 9 Process Arrival Time: 700 Process Lifetime: 1500 No of segments of Process: 2 Enter size of segments separated by space: 200 200 Press 1 for first fit or 2 for best fit or 3 for worst fit or any other number key for exiting: 1 ---------------QUEUE STATUS----------- At time t = 0, these are the processes present in Queue: Process: 1 Arrival Time: 0 ---------------QUEUE STATUS----------- At time t = 0, these are the processes present in Queue: Process: 1 Arrival Time: 0 Process: 2 Arrival Time: 0 ---------------QUEUE STATUS----------- At time t = 0, these are the processes present in Queue: Process: 1 Arrival Time: 0 Process: 2 Arrival Time: 0 Process: 3 Arrival Time: 0 ---------------QUEUE STATUS----------- At time t = 0, these are the processes present in Queue: Process: 1 Arrival Time: 0 Process: 2 Arrival Time: 0 Process: 3 Arrival Time: 0 Process: 4 Arrival Time: 0 ---------------QUEUE STATUS----------- At time t = 0, these are the processes present in Queue: Process: 1 Arrival Time: 0 Process: 2 Arrival Time: 0 Process: 3 Arrival Time: 0 Process: 4 Arrival Time: 0 Process: 5 Arrival Time: 0 ---------------QUEUE STATUS----------- At time t = 0, these are the processes present in Queue: Process: 1 Arrival Time: 0 Process: 2 Arrival Time: 0 Process: 3 Arrival Time: 0 Process: 4 Arrival Time: 0 Process: 5 Arrival Time: 0 Process: 6 Arrival Time: 0 Process: 1 added at time t = 0 ----------------MEMORY STATUS---------------- at time t = 0 Process :- 1 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 1 Segment :- 1 Size :-200 Location :- 200 - 399 Hole Present :- Size :- 1600 Location :- 400 - 1999 Process: 2 added at time t = 0 ----------------MEMORY STATUS---------------- at time t = 0 Process :- 1 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 1 Segment :- 1 Size :-200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Hole Present :- Size :- 1400 Location :- 600 - 1999 Process: 3 added at time t = 0 ----------------MEMORY STATUS---------------- at time t = 0 Process :- 1 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 1 Segment :- 1 Size :-200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Process :- 3 Segment :- 0 Size :-200 Location :- 600 - 799 Process :- 3 Segment :- 1 Size :-100 Location :- 800 - 899 Hole Present :- Size :- 1100 Location :- 900 - 1999 Process: 4 added at time t = 0 ----------------MEMORY STATUS---------------- at time t = 0 Process :- 1 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 1 Segment :- 1 Size :-200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Process :- 3 Segment :- 0 Size :-200 Location :- 600 - 799 Process :- 3 Segment :- 1 Size :-100 Location :- 800 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Hole Present :- Size :- 1000 Location :- 1000 - 1999 Process: 5 added at time t = 0 ----------------MEMORY STATUS---------------- at time t = 0 Process :- 1 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 1 Segment :- 1 Size :-200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Process :- 3 Segment :- 0 Size :-200 Location :- 600 - 799 Process :- 3 Segment :- 1 Size :-100 Location :- 800 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Process :- 5 Segment :- 0 Size :-200 Location :- 1000 - 1199 Process :- 5 Segment :- 1 Size :-200 Location :- 1200 - 1399 Process :- 5 Segment :- 2 Size :-100 Location :- 1400 - 1499 Hole Present :- Size :- 500 Location :- 1500 - 1999 Process: 6 added at time t = 0 ----------------MEMORY STATUS---------------- at time t = 0 Process :- 1 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 1 Segment :- 1 Size :-200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Process :- 3 Segment :- 0 Size :-200 Location :- 600 - 799 Process :- 3 Segment :- 1 Size :-100 Location :- 800 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Process :- 5 Segment :- 0 Size :-200 Location :- 1000 - 1199 Process :- 5 Segment :- 1 Size :-200 Location :- 1200 - 1399 Process :- 5 Segment :- 2 Size :-100 Location :- 1400 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 Process: 1 is completed and removed at time t = 200 ----------------MEMORY STATUS---------------- at time t = 200 Hole Present :- Size :- 200 Location :- 0 - 199 Hole Present :- Size :- 200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Process :- 3 Segment :- 0 Size :-200 Location :- 600 - 799 Process :- 3 Segment :- 1 Size :-100 Location :- 800 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Process :- 5 Segment :- 0 Size :-200 Location :- 1000 - 1199 Process :- 5 Segment :- 1 Size :-200 Location :- 1200 - 1399 Process :- 5 Segment :- 2 Size :-100 Location :- 1400 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 Process: 3 is completed and removed at time t = 200 ----------------MEMORY STATUS---------------- at time t = 200 Hole Present :- Size :- 200 Location :- 0 - 199 Hole Present :- Size :- 200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Hole Present :- Size :- 200 Location :- 600 - 799 Hole Present :- Size :- 100 Location :- 800 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Process :- 5 Segment :- 0 Size :-200 Location :- 1000 - 1199 Process :- 5 Segment :- 1 Size :-200 Location :- 1200 - 1399 Process :- 5 Segment :- 2 Size :-100 Location :- 1400 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 Process: 5 is completed and removed at time t = 200 ----------------MEMORY STATUS---------------- at time t = 200 Hole Present :- Size :- 200 Location :- 0 - 199 Hole Present :- Size :- 200 Location :- 200 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Hole Present :- Size :- 200 Location :- 600 - 799 Hole Present :- Size :- 100 Location :- 800 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Hole Present :- Size :- 200 Location :- 1000 - 1199 Hole Present :- Size :- 200 Location :- 1200 - 1399 Hole Present :- Size :- 100 Location :- 1400 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 ---------------QUEUE STATUS----------- At time t = 500, these are the processes present in Queue: Process: 7 Arrival Time: 500 Process: 7 added at time t = 500 ----------------MEMORY STATUS---------------- at time t = 500 Process :- 7 Segment :- 0 Size :-300 Location :- 0 - 299 Hole Present :- Size :- 100 Location :- 300 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Hole Present :- Size :- 300 Location :- 600 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Process :- 7 Segment :- 1 Size :-500 Location :- 1000 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 ---------------QUEUE STATUS----------- At time t = 600, these are the processes present in Queue: Process: 8 Arrival Time: 600 ---------------QUEUE STATUS----------- At time t = 700, these are the processes present in Queue: Process: 8 Arrival Time: 600 Process: 9 Arrival Time: 700 Process: 7 is completed and removed at time t = 2000 ----------------MEMORY STATUS---------------- at time t = 2000 Hole Present :- Size :- 300 Location :- 0 - 299 Hole Present :- Size :- 100 Location :- 300 - 399 Process :- 2 Segment :- 0 Size :-200 Location :- 400 - 599 Hole Present :- Size :- 300 Location :- 600 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Hole Present :- Size :- 500 Location :- 1000 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 Process: 2 is completed and removed at time t = 2000 ----------------MEMORY STATUS---------------- at time t = 2000 Hole Present :- Size :- 300 Location :- 0 - 299 Hole Present :- Size :- 100 Location :- 300 - 399 Hole Present :- Size :- 200 Location :- 400 - 599 Hole Present :- Size :- 300 Location :- 600 - 899 Process :- 4 Segment :- 0 Size :-100 Location :- 900 - 999 Hole Present :- Size :- 500 Location :- 1000 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 Process: 4 is completed and removed at time t = 2000 ----------------MEMORY STATUS---------------- at time t = 2000 Hole Present :- Size :- 300 Location :- 0 - 299 Hole Present :- Size :- 100 Location :- 300 - 399 Hole Present :- Size :- 200 Location :- 400 - 599 Hole Present :- Size :- 300 Location :- 600 - 899 Hole Present :- Size :- 100 Location :- 900 - 999 Hole Present :- Size :- 500 Location :- 1000 - 1499 Process :- 6 Segment :- 0 Size :-400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 Process: 6 is completed and removed at time t = 2000 ----------------MEMORY STATUS---------------- at time t = 2000 Hole Present :- Size :- 300 Location :- 0 - 299 Hole Present :- Size :- 100 Location :- 300 - 399 Hole Present :- Size :- 200 Location :- 400 - 599 Hole Present :- Size :- 300 Location :- 600 - 899 Hole Present :- Size :- 100 Location :- 900 - 999 Hole Present :- Size :- 500 Location :- 1000 - 1499 Hole Present :- Size :- 400 Location :- 1500 - 1899 Hole Present :- Size :- 100 Location :- 1900 - 1999 Process: 8 added at time t = 2000 ----------------MEMORY STATUS---------------- at time t = 2000 Process :- 8 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 8 Segment :- 1 Size :-200 Location :- 200 - 399 Process :- 8 Segment :- 2 Size :-200 Location :- 400 - 599 Hole Present :- Size :- 1400 Location :- 600 - 1999 Process: 9 added at time t = 2000 ----------------MEMORY STATUS---------------- at time t = 2000 Process :- 8 Segment :- 0 Size :-200 Location :- 0 - 199 Process :- 8 Segment :- 1 Size :-200 Location :- 200 - 399 Process :- 8 Segment :- 2 Size :-200 Location :- 400 - 599 Process :- 9 Segment :- 0 Size :-200 Location :- 600 - 799 Process :- 9 Segment :- 1 Size :-200 Location :- 800 - 999 Hole Present :- Size :- 1000 Location :- 1000 - 1999 Process: 8 is completed and removed at time t = 3500 ----------------MEMORY STATUS---------------- at time t = 3500 Hole Present :- Size :- 200 Location :- 0 - 199 Hole Present :- Size :- 200 Location :- 200 - 399 Hole Present :- Size :- 200 Location :- 400 - 599 Process :- 9 Segment :- 0 Size :-200 Location :- 600 - 799 Process :- 9 Segment :- 1 Size :-200 Location :- 800 - 999 Hole Present :- Size :- 1000 Location :- 1000 - 1999 Process: 9 is completed and removed at time t = 3500 ----------------MEMORY STATUS---------------- at time t = 3500 Hole Present :- Size :- 200 Location :- 0 - 199 Hole Present :- Size :- 200 Location :- 200 - 399 Hole Present :- Size :- 200 Location :- 400 - 599 Hole Present :- Size :- 200 Location :- 600 - 799 Hole Present :- Size :- 200 Location :- 800 - 999 Hole Present :- Size :- 1000 Location :- 1000 - 1999 Average turnaround time is: 1533.33