```
 1  /Library/Java/JavaVirtualMachines/jdk-11.0.2.jdk/Contents/Home/bin/j
 2  Please enter  number of customers :
 3  20
 4  CID : 1
 5  Time Since Last Arrival  : 0
 6  Arrival Time : 0
 7  Service Time : 2
 8  Time Server Begins  : 0
 9  Time Customer waits in Queue : 0
10  Time Service End : 2
11  Time Customer Spends in System : 2
12  Idle Time of Server : 0
13  Random Digit for Service Time : 17
14  Random Digit for Arrival Time : 993
15  +++++++++++++++++++++++++++++++++++++++++++++
16  CID : 2
17  Time Since Last Arrival  : 1
18  Arrival Time : 1
19  Service Time : 4
20  Time Server Begins  : 2
21  Time Customer waits in Queue : 1
22  Time Service End : 6
23  Time Customer Spends in System : 5
24  Idle Time of Server : 0
25  Random Digit for Service Time : 61
26  Random Digit for Arrival Time : 89
27  +++++++++++++++++++++++++++++++++++++++++++++
28  CID : 3
29  Time Since Last Arrival  : 6
30  Arrival Time : 7
31  Service Time : 3
32  Time Server Begins  : 7
33  Time Customer waits in Queue : 0
34  Time Service End : 10
35  Time Customer Spends in System : 3
36  Idle Time of Server : 1
37  Random Digit for Service Time : 57
38  Random Digit for Arrival Time : 744
39  +++++++++++++++++++++++++++++++++++++++++++++
40  CID : 4
41  Time Since Last Arrival  : 4
42  Arrival Time : 11
43  Service Time : 4
44  Time Server Begins  : 11
45  Time Customer waits in Queue : 0
46  Time Service End : 15
47  Time Customer Spends in System : 4
48  Idle Time of Server : 1
49  Random Digit for Service Time : 76
50  Random Digit for Arrival Time : 430
51  +++++++++++++++++++++++++++++++++++++++++++++
52  CID : 5
53  Time Since Last Arrival  : 1
54  Arrival Time : 12
55  Service Time : 2
56  Time Server Begins  : 15
57  Time Customer waits in Queue : 3
58  Time Service End : 17
59  Time Customer Spends in System : 5
```

```
 60   Idle Time of Server : 0
 61   Random Digit for Service Time : 25
 62   Random Digit for Arrival Time : 2
 63   ++++++++++++++++++++++++++++++++++++++++++++++
 64   CID : 6
 65   Time Since Last Arrival  : 1
 66   Arrival Time : 13
 67   Service Time : 3
 68   Time Server Begins  : 17
 69   Time Customer waits in Queue : 4
 70   Time Service End : 20
 71   Time Customer Spends in System : 7
 72   Idle Time of Server : 0
 73   Random Digit for Service Time : 34
 74   Random Digit for Arrival Time : 103
 75   ++++++++++++++++++++++++++++++++++++++++++++++
 76   CID : 7
 77   Time Since Last Arrival  : 8
 78   Arrival Time : 21
 79   Service Time : 2
 80   Time Server Begins  : 21
 81   Time Customer waits in Queue : 0
 82   Time Service End : 23
 83   Time Customer Spends in System : 2
 84   Idle Time of Server : 1
 85   Random Digit for Service Time : 13
 86   Random Digit for Arrival Time : 994
 87   ++++++++++++++++++++++++++++++++++++++++++++++
 88   CID : 8
 89   Time Since Last Arrival  : 1
 90   Arrival Time : 22
 91   Service Time : 3
 92   Time Server Begins  : 23
 93   Time Customer waits in Queue : 1
 94   Time Service End : 26
 95   Time Customer Spends in System : 4
 96   Idle Time of Server : 0
 97   Random Digit for Service Time : 31
 98   Random Digit for Arrival Time : 59
 99   ++++++++++++++++++++++++++++++++++++++++++++++
100   CID : 9
101   Time Since Last Arrival  : 8
102   Arrival Time : 30
103   Service Time : 4
104   Time Server Begins  : 30
105   Time Customer waits in Queue : 0
106   Time Service End : 34
107   Time Customer Spends in System : 4
108   Idle Time of Server : 4
109   Random Digit for Service Time : 64
110   Random Digit for Arrival Time : 918
111   ++++++++++++++++++++++++++++++++++++++++++++++
112   CID : 10
113   Time Since Last Arrival  : 2
114   Arrival Time : 32
115   Service Time : 2
116   Time Server Begins  : 34
117   Time Customer waits in Queue : 2
118   Time Service End : 36
```

119	Time Customer Spends in System : 4
120	Idle Time of Server : 0
121	Random Digit for Service Time : 13
122	Random Digit for Arrival Time : 141
123	++
124	CID : 11
125	Time Since Last Arrival : 8
126	Arrival Time : 40
127	Service Time : 4
128	Time Server Begins : 40
129	Time Customer waits in Queue : 0
130	Time Service End : 44
131	Time Customer Spends in System : 4
132	Idle Time of Server : 4
133	Random Digit for Service Time : 78
134	Random Digit for Arrival Time : 985
135	++
136	CID : 12
137	Time Since Last Arrival : 7
138	Arrival Time : 47
139	Service Time : 3
140	Time Server Begins : 47
141	Time Customer waits in Queue : 0
142	Time Service End : 50
143	Time Customer Spends in System : 3
144	Idle Time of Server : 3
145	Random Digit for Service Time : 48
146	Random Digit for Arrival Time : 792
147	++
148	CID : 13
149	Time Since Last Arrival : 5
150	Arrival Time : 52
151	Service Time : 3
152	Time Server Begins : 52
153	Time Customer waits in Queue : 0
154	Time Service End : 55
155	Time Customer Spends in System : 3
156	Idle Time of Server : 2
157	Random Digit for Service Time : 42
158	Random Digit for Arrival Time : 538
159	++
160	CID : 14
161	Time Since Last Arrival : 2
162	Arrival Time : 54
163	Service Time : 4
164	Time Server Begins : 55
165	Time Customer waits in Queue : 1
166	Time Service End : 59
167	Time Customer Spends in System : 5
168	Idle Time of Server : 0
169	Random Digit for Service Time : 85
170	Random Digit for Arrival Time : 143
171	++
172	CID : 15
173	Time Since Last Arrival : 4
174	Arrival Time : 58
175	Service Time : 4
176	Time Server Begins : 59
177	Time Customer waits in Queue : 1

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178   Time Service End : 63
179   Time Customer Spends in System : 5
180   Idle Time of Server : 0
181   Random Digit for Service Time : 83
182   Random Digit for Arrival Time : 432
183   +++++++++++++++++++++++++++++++++++++++++++++
184   CID : 16
185   Time Since Last Arrival  : 6
186   Arrival Time : 64
187   Service Time : 5
188   Time Server Begins  : 64
189   Time Customer waits in Queue : 0
190   Time Service End : 69
191   Time Customer Spends in System : 5
192   Idle Time of Server : 1
193   Random Digit for Service Time : 95
194   Random Digit for Arrival Time : 635
195   +++++++++++++++++++++++++++++++++++++++++++++
196   CID : 17
197   Time Since Last Arrival  : 2
198   Arrival Time : 66
199   Service Time : 2
200   Time Server Begins  : 69
201   Time Customer waits in Queue : 3
202   Time Service End : 71
203   Time Customer Spends in System : 5
204   Idle Time of Server : 0
205   Random Digit for Service Time : 16
206   Random Digit for Arrival Time : 238
207   +++++++++++++++++++++++++++++++++++++++++++++
208   CID : 18
209   Time Since Last Arrival  : 6
210   Arrival Time : 72
211   Service Time : 3
212   Time Server Begins  : 72
213   Time Customer waits in Queue : 0
214   Time Service End : 75
215   Time Customer Spends in System : 3
216   Idle Time of Server : 1
217   Random Digit for Service Time : 37
218   Random Digit for Arrival Time : 725
219   +++++++++++++++++++++++++++++++++++++++++++++
220   CID : 19
221   Time Since Last Arrival  : 1
222   Arrival Time : 73
223   Service Time : 3
224   Time Server Begins  : 75
225   Time Customer waits in Queue : 2
226   Time Service End : 78
227   Time Customer Spends in System : 5
228   Idle Time of Server : 0
229   Random Digit for Service Time : 51
230   Random Digit for Arrival Time : 59
231   +++++++++++++++++++++++++++++++++++++++++++++
232   CID : 20
233   Time Since Last Arrival  : 2
234   Arrival Time : 75
235   Service Time : 3
236   Time Server Begins  : 78
```

```
237   Time Customer waits in Queue : 3
238   Time Service End : 81
239   Time Customer Spends in System : 6
240   Idle Time of Server : 0
241   Random Digit for Service Time : 51
242   Random Digit for Arrival Time : 143
243   ++++++++++++++++++++++++++++++++++++++++++++++++++
244   average waiting time for a customer : 1.05
245   probably that a customer has to wait in queue  : 0.5
246   fraction of idle time of the server : 0.2222222222222222
247   probably of the server being busy : 0.7777777777777778
248   average service time : 3.15
249   expected value : 3.2
250   average time between arrivals : 3.9473684210526314
251   discrete uniform distribution : 4.5
252   average waiting time of those who wait : 2.1
253   average time a customer spends in the system : 4.2
254   average time customer spends in the system : 4.2
255
256   Process finished with exit code 0
257
```