```
 1  /Library/Java/JavaVirtualMachines/jdk-11.0.2.jdk/Contents/Home/bin/j
 2  Please Enter number of customers :
 3  20
 4  ABLE CUSTOMER SIZE : 1
 5  CID : 1
 6  Time Since Last Arrival  : 0
 7  Arrival Time : 0
 8  Service Time : 4
 9  Time Server Begins  : 0
10  Time Customer waits in Queue : 0
11  Time Service End : 4
12  Time Customer Spends in System : 4
13  Idle Time of Server : 0
14  Random Digit for Service Time : 75
15  Random Digit for Arrival Time : 51
16  Service Name  : ABLE
17  ++++++++++++++++++++++++++++++++++++++++++++++
18  CID : 2
19  Time Since Last Arrival  : 3
20  Arrival Time : 3
21  Service Time : 5
22  Time Server Begins  : 3
23  Time Customer waits in Queue : 0
24  Time Service End : 8
25  Time Customer Spends in System : 5
26  Idle Time of Server : 0
27  Random Digit for Service Time : 78
28  Random Digit for Arrival Time : 84
29  Service Name  : BACKER
30  ++++++++++++++++++++++++++++++++++++++++++++++
31  CID : 3
32  Time Since Last Arrival  : 2
33  Arrival Time : 5
34  Service Time : 3
35  Time Server Begins  : 5
36  Time Customer waits in Queue : 0
37  Time Service End : 8
38  Time Customer Spends in System : 3
39  Idle Time of Server : 1
40  Random Digit for Service Time : 40
41  Random Digit for Arrival Time : 62
42  Service Name  : ABLE
43  ++++++++++++++++++++++++++++++++++++++++++++++
44  CID : 4
45  Time Since Last Arrival  : 2
46  Arrival Time : 7
47  Service Time : 5
48  Time Server Begins  : 8
49  Time Customer waits in Queue : 1
50  Time Service End : 13
51  Time Customer Spends in System : 6
52  Idle Time of Server : 0
53  Random Digit for Service Time : 92
54  Random Digit for Arrival Time : 42
55  Service Name  : ABLE
56  ++++++++++++++++++++++++++++++++++++++++++++++
57  CID : 5
58  Time Since Last Arrival  : 4
59  Arrival Time : 11
```

```
 60   Service Time : 3
 61   Time Server Begins  : 11
 62   Time Customer waits in Queue : 0
 63   Time Service End : 14
 64   Time Customer Spends in System : 3
 65   Idle Time of Server : 3
 66   Random Digit for Service Time : 30
 67   Random Digit for Arrival Time : 96
 68   Service Name  : BACKER
 69   +++++++++++++++++++++++++++++++++++++++++++++++++
 70   CID : 6
 71   Time Since Last Arrival  : 1
 72   Arrival Time : 12
 73   Service Time : 2
 74   Time Server Begins  : 13
 75   Time Customer waits in Queue : 1
 76   Time Service End : 15
 77   Time Customer Spends in System : 3
 78   Idle Time of Server : 0
 79   Random Digit for Service Time : 6
 80   Random Digit for Arrival Time : 20
 81   Service Name  : ABLE
 82   +++++++++++++++++++++++++++++++++++++++++++++++++
 83   CID : 7
 84   Time Since Last Arrival  : 1
 85   Arrival Time : 13
 86   Service Time : 3
 87   Time Server Begins  : 14
 88   Time Customer waits in Queue : 1
 89   Time Service End : 17
 90   Time Customer Spends in System : 4
 91   Idle Time of Server : 0
 92   Random Digit for Service Time : 27
 93   Random Digit for Arrival Time : 17
 94   Service Name  : BACKER
 95   +++++++++++++++++++++++++++++++++++++++++++++++++
 96   CID : 8
 97   Time Since Last Arrival  : 2
 98   Arrival Time : 15
 99   Service Time : 3
100   Time Server Begins  : 15
101   Time Customer waits in Queue : 0
102   Time Service End : 18
103   Time Customer Spends in System : 3
104   Idle Time of Server : 0
105   Random Digit for Service Time : 46
106   Random Digit for Arrival Time : 65
107   Service Name  : ABLE
108   +++++++++++++++++++++++++++++++++++++++++++++++++
109   CID : 9
110   Time Since Last Arrival  : 3
111   Arrival Time : 18
112   Service Time : 4
113   Time Server Begins  : 18
114   Time Customer waits in Queue : 0
115   Time Service End : 22
116   Time Customer Spends in System : 4
117   Idle Time of Server : 0
118   Random Digit for Service Time : 81
```

```
119  Random Digit for Arrival Time : 79
120  Service Name  : ABLE
121  ++++++++++++++++++++++++++++++++++++++++++++++
122  CID : 10
123  Time Since Last Arrival  : 4
124  Arrival Time : 22
125  Service Time : 5
126  Time Server Begins  : 22
127  Time Customer waits in Queue : 0
128  Time Service End : 27
129  Time Customer Spends in System : 5
130  Idle Time of Server : 0
131  Random Digit for Service Time : 96
132  Random Digit for Arrival Time : 99
133  Service Name  : ABLE
134  ++++++++++++++++++++++++++++++++++++++++++++++
135  CID : 11
136  Time Since Last Arrival  : 2
137  Arrival Time : 24
138  Service Time : 3
139  Time Server Begins  : 24
140  Time Customer waits in Queue : 0
141  Time Service End : 27
142  Time Customer Spends in System : 3
143  Idle Time of Server : 7
144  Random Digit for Service Time : 33
145  Random Digit for Arrival Time : 35
146  Service Name  : BACKER
147  ++++++++++++++++++++++++++++++++++++++++++++++
148  CID : 12
149  Time Since Last Arrival  : 1
150  Arrival Time : 25
151  Service Time : 2
152  Time Server Begins  : 27
153  Time Customer waits in Queue : 2
154  Time Service End : 29
155  Time Customer Spends in System : 4
156  Idle Time of Server : 0
157  Random Digit for Service Time : 2
158  Random Digit for Arrival Time : 10
159  Service Name  : ABLE
160  ++++++++++++++++++++++++++++++++++++++++++++++
161  CID : 13
162  Time Since Last Arrival  : 3
163  Arrival Time : 28
164  Service Time : 3
165  Time Server Begins  : 28
166  Time Customer waits in Queue : 0
167  Time Service End : 31
168  Time Customer Spends in System : 3
169  Idle Time of Server : 1
170  Random Digit for Service Time : 11
171  Random Digit for Arrival Time : 73
172  Service Name  : BACKER
173  ++++++++++++++++++++++++++++++++++++++++++++++
174  CID : 14
175  Time Since Last Arrival  : 2
176  Arrival Time : 30
177  Service Time : 5
```

```
178   Time Server Begins  : 30
179   Time Customer waits in Queue : 0
180   Time Service End : 35
181   Time Customer Spends in System : 5
182   Idle Time of Server : 1
183   Random Digit for Service Time : 94
184   Random Digit for Arrival Time : 55
185   Service Name  : ABLE
186   +++++++++++++++++++++++++++++++++++++++++++++
187   CID : 15
188   Time Since Last Arrival  : 2
189   Arrival Time : 32
190   Service Time : 4
191   Time Server Begins  : 32
192   Time Customer waits in Queue : 0
193   Time Service End : 36
194   Time Customer Spends in System : 4
195   Idle Time of Server : 1
196   Random Digit for Service Time : 38
197   Random Digit for Arrival Time : 54
198   Service Name  : BACKER
199   +++++++++++++++++++++++++++++++++++++++++++++
200   CID : 16
201   Time Since Last Arrival  : 2
202   Arrival Time : 34
203   Service Time : 3
204   Time Server Begins  : 35
205   Time Customer waits in Queue : 1
206   Time Service End : 38
207   Time Customer Spends in System : 4
208   Idle Time of Server : 0
209   Random Digit for Service Time : 35
210   Random Digit for Arrival Time : 29
211   Service Name  : ABLE
212   +++++++++++++++++++++++++++++++++++++++++++++
213   CID : 17
214   Time Since Last Arrival  : 2
215   Arrival Time : 36
216   Service Time : 4
217   Time Server Begins  : 36
218   Time Customer waits in Queue : 0
219   Time Service End : 40
220   Time Customer Spends in System : 4
221   Idle Time of Server : 0
222   Random Digit for Service Time : 49
223   Random Digit for Arrival Time : 44
224   Service Name  : BACKER
225   +++++++++++++++++++++++++++++++++++++++++++++
226   CID : 18
227   Time Since Last Arrival  : 3
228   Arrival Time : 39
229   Service Time : 2
230   Time Server Begins  : 39
231   Time Customer waits in Queue : 0
232   Time Service End : 41
233   Time Customer Spends in System : 2
234   Idle Time of Server : 1
235   Random Digit for Service Time : 29
236   Random Digit for Arrival Time : 66
```

```
237  Service Name  : ABLE
238  +++++++++++++++++++++++++++++++++++++++++++++++++
239  CID : 19
240  Time Since Last Arrival  : 1
241  Arrival Time : 40
242  Service Time : 3
243  Time Server Begins  : 40
244  Time Customer waits in Queue : 0
245  Time Service End : 43
246  Time Customer Spends in System : 3
247  Idle Time of Server : 0
248  Random Digit for Service Time : 6
249  Random Digit for Arrival Time : 7
250  Service Name  : BACKER
251  +++++++++++++++++++++++++++++++++++++++++++++++++
252  CID : 20
253  Time Since Last Arrival  : 1
254  Arrival Time : 41
255  Service Time : 5
256  Time Server Begins  : 41
257  Time Customer waits in Queue : 0
258  Time Service End : 46
259  Time Customer Spends in System : 5
260  Idle Time of Server : 0
261  Random Digit for Service Time : 98
262  Random Digit for Arrival Time : 20
263  Service Name  : ABLE
264  +++++++++++++++++++++++++++++++++++++++++++++++++
265  ABLE CALCULATIONS :
266  ABLE average waiting time for a customer : 0.41666666666667
267  ABLE probably that a customer has to wait in queue  : 0.333333333333
268  ABLE fraction of idle time of the server : 0.06521739130434782
269  ABLE probably of the server being busy : 0.9347826086956522
270  ABLE average service time : 3.5833333333333335
271  ABLE expected value : 3.29
272  ABLE average time between arrivals : 3.7272727272727
273  ABLE discrete uniform distribution : 2.5
274  ABLE average waiting time of those who wait : 1.25
275  ABLE average time a customer spends in the system : 4.0
276  ABLE average time customer spends in the system : 4.0
277  The able customer  : 12
278  The backer customer : 8
279  +++++++++++++++++++++++++++++++++++++++++++++++++
280  BACKER CALCULATIONS :
281  BACKER average waiting time for a customer : 0.125
282  BACKER probably that a customer has to wait in queue  : 0.125
283  BACKER fraction of idle time of the server : 0.27906976744186046
284  BACKER probably of the server being busy : 0.7209302325581395
285  BACKER average service time : 3.5
286  BACKER expected value : 4.25
287  BACKER average time between arrivals : 5.714285714285714
288  BACKER discrete uniform distribution : 2.5
289  BACKER average waiting time of those who wait : 1.0
290  BACKER average time a customer spends in the system : 3.625
291  BACKER average time customer spends in the system : 3.625
292  The able customer  : 12
293  The backer customer : 8
294  Excel written successfully..
295
```

```
296   Process finished with exit code 0
297
```