

unknown

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80 cord_individual_obj[indivial_i,:] = [16. 9. 79. 88.]
81 cord_individual_obj[indivial_i,:] = [17. 7. 59. 66.]
82 cord_individual_obj[indivial_i,:] = [18. 6. 31. 37.]
83 cord_individual_obj[indivial_i,:] = [19. 7. 130. 137.]
84 cord_individual_obj[indivial_i,:] = [20. 9. 38. 47.]
85 cord_individual_obj[indivial_i,:] = [21. 10. 90. 100.]
86 cord_individual_obj[indivial_i,:] = [22. 12. 79. 91.]
87 cord_individual_obj[indivial_i,:] = [23. 6. 163. 169.]
88 cord_individual_obj[indivial_i,:] = [24. 9. 86. 95.]
89
90 min(cord_individual_obj[:,3]) = 37.0
91 historl_G_best_iter[iter,3] = 37.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 7. 119. 126.]
96 cord_individual_obj[indivial_i,:] = [ 1. 7. 163. 170.]
97 cord_individual_obj[indivial_i,:] = [ 2. 9. 126. 135.]
98 cord_individual_obj[indivial_i,:] = [ 3. 8. 110. 118.]
99 cord_individual_obj[indivial_i,:] = [ 4. 9. 176. 185.]
100 cord_individual_obj[indivial_i,:] = [ 5. 5. 62. 67.]
101 cord_individual_obj[indivial_i,:] = [ 6. 6. 67. 73.]
102 cord_individual_obj[indivial_i,:] = [ 7. 8. 55. 63.]
103 cord_individual_obj[indivial_i,:] = [ 8. 10. 79. 89.]
104 cord_individual_obj[indivial_i,:] = [ 9. 7. 79. 86.]
105 cord_individual_obj[indivial_i,:] = [10. 6. 72. 78.]
106 cord_individual_obj[indivial_i,:] = [11. 7. 45. 52.]
107 cord_individual_obj[indivial_i,:] = [12. 5. 51. 56.]
108 cord_individual_obj[indivial_i,:] = [13. 7. 166. 173.]
109 cord_individual_obj[indivial_i,:] = [14. 7. 53. 60.]
110 cord_individual_obj[indivial_i,:] = [15. 8. 89. 97.]
111 cord_individual_obj[indivial_i,:] = [16. 11. 82. 93.]
112 cord_individual_obj[indivial_i,:] = [17. 8. 49. 57.]
113 cord_individual_obj[indivial_i,:] = [18. 6. 132. 138.]
114 cord_individual_obj[indivial_i,:] = [19. 5. 130. 135.]
115 cord_individual_obj[indivial_i,:] = [20. 8. 75. 83.]
116 cord_individual_obj[indivial_i,:] = [21. 5. 124. 129.]
117 cord_individual_obj[indivial_i,:] = [22. 7. 41. 48.]
118 cord_individual_obj[indivial_i,:] = [23. 6. 31. 37.]
119 cord_individual_obj[indivial_i,:] = [24. 8. 216. 224.]
120
121 min(cord_individual_obj[:,3]) = 37.0
122 historl_G_best_iter[iter,3] = 37.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 5. 83. 88.]
127 cord_individual_obj[indivial_i,:] = [ 1. 7. 41. 48.]
128 cord_individual_obj[indivial_i,:] = [ 2. 7. 133. 140.]
129 cord_individual_obj[indivial_i,:] = [ 3. 6. 63. 69.]
130 cord_individual_obj[indivial_i,:] = [ 4. 6. 112. 118.]
131 cord_individual_obj[indivial_i,:] = [ 5. 6. 31. 37.]
132 cord_individual_obj[indivial_i,:] = [ 6. 5. 139. 144.]
133 cord_individual_obj[indivial_i,:] = [ 7. 6. 93. 99.]
134 cord_individual_obj[indivial_i,:] = [ 8. 8. 164. 172.]
135 cord_individual_obj[indivial_i,:] = [ 9. 7. 56. 63.]
136 cord_individual_obj[indivial_i,:] = [10. 6. 74. 80.]
137 cord_individual_obj[indivial_i,:] = [11. 8. 94. 102.]
138 cord_individual_obj[indivial_i,:] = [12. 5. 60. 65.]
139 cord_individual_obj[indivial_i,:] = [13. 7. 96. 103.]
140 cord_individual_obj[indivial_i,:] = [14. 8. 80. 88.]
141 cord_individual_obj[indivial_i,:] = [15. 9. 56. 65.]
142 cord_individual_obj[indivial_i,:] = [16. 8. 126. 134.]
143 cord_individual_obj[indivial_i,:] = [17. 6. 140. 146.]
144 cord_individual_obj[indivial_i,:] = [18. 6. 44. 50.]
145 cord_individual_obj[indivial_i,:] = [19. 6. 121. 127.]
146 cord_individual_obj[indivial_i,:] = [20. 8. 59. 67.]
147 cord_individual_obj[indivial_i,:] = [21. 6. 35. 41.]
148 cord_individual_obj[indivial_i,:] = [22. 6. 54. 60.]
149 cord_individual_obj[indivial_i,:] = [23. 7. 127. 134.]
150 cord_individual_obj[indivial_i,:] = [24. 6. 31. 37.]
151
152 min(cord_individual_obj[:,3]) = 37.0
153 historl_G_best_iter[iter,3] = 37.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 9. 101. 110.]
158 cord_individual_obj[indivial_i,:] = [ 1. 9. 86. 95.]
159 cord_individual_obj[indivial_i,:] = [ 2. 8. 76. 84.]
160 cord_individual_obj[indivial_i,:] = [ 3. 7. 94. 101.]
161 cord_individual_obj[indivial_i,:] = [ 4. 7. 128. 135.]
162 cord_individual_obj[indivial_i,:] = [ 5. 7. 58. 65.]
163 cord_individual_obj[indivial_i,:] = [ 6. 9. 99. 108.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 7. 47. 54.]
165 cord_individual_obj[indivial_i,:] = [ 8. 6. 31. 37.]
166 cord_individual_obj[indivial_i,:] = [ 9. 10. 73. 83.]
167 cord_individual_obj[indivial_i,:] = [10. 8. 53. 61.]
168 cord_individual_obj[indivial_i,:] = [11. 7. 72. 79.]
169 cord_individual_obj[indivial_i,:] = [12. 9. 67. 76.]
170 cord_individual_obj[indivial_i,:] = [13. 10. 107. 117.]
171 cord_individual_obj[indivial_i,:] = [14. 8. 112. 120.]
172 cord_individual_obj[indivial_i,:] = [15. 8. 50. 58.]
173 cord_individual_obj[indivial_i,:] = [16. 9. 62. 71.]
174 cord_individual_obj[indivial_i,:] = [17. 9. 76. 85.]
175 cord_individual_obj[indivial_i,:] = [18. 7. 76. 83.]
176 cord_individual_obj[indivial_i,:] = [19. 8. 25. 33.]
177 cord_individual_obj[indivial_i,:] = [20. 9. 45. 54.]
178 cord_individual_obj[indivial_i,:] = [21. 7. 94. 101.]
179 cord_individual_obj[indivial_i,:] = [22. 8. 54. 62.]
180 cord_individual_obj[indivial_i,:] = [23. 7. 136. 143.]
181 cord_individual_obj[indivial_i,:] = [24. 7. 111. 118.]
182
183 min(cord_individual_obj[:,3]) = 33.0
184 historl_G_best_iter[iter,3] = 33.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 8. 140. 148.]
189 cord_individual_obj[indivial_i,:] = [ 1. 8. 152. 160.]
190 cord_individual_obj[indivial_i,:] = [ 2. 5. 98. 103.]
191 cord_individual_obj[indivial_i,:] = [ 3. 8. 64. 72.]
192 cord_individual_obj[indivial_i,:] = [ 4. 8. 82. 90.]
193 cord_individual_obj[indivial_i,:] = [ 5. 6. 33. 39.]
194 cord_individual_obj[indivial_i,:] = [ 6. 6. 117. 123.]
195 cord_individual_obj[indivial_i,:] = [ 7. 7. 67. 74.]
196 cord_individual_obj[indivial_i,:] = [ 8. 7. 78. 85.]
197 cord_individual_obj[indivial_i,:] = [ 9. 8. 87. 95.]
198 cord_individual_obj[indivial_i,:] = [10. 9. 76. 85.]
199 cord_individual_obj[indivial_i,:] = [11. 10. 51. 61.]
200 cord_individual_obj[indivial_i,:] = [12. 8. 104. 112.]
201 cord_individual_obj[indivial_i,:] = [13. 8. 131. 139.]
202 cord_individual_obj[indivial_i,:] = [14. 6. 117. 123.]
203 cord_individual_obj[indivial_i,:] = [15. 6. 77. 83.]
204 cord_individual_obj[indivial_i,:] = [16. 9. 64. 73.]
205 cord_individual_obj[indivial_i,:] = [17. 8. 153. 161.]
206 cord_individual_obj[indivial_i,:] = [18. 7. 116. 123.]
207 cord_individual_obj[indivial_i,:] = [19. 6. 124. 130.]
208 cord_individual_obj[indivial_i,:] = [20. 6. 187. 193.]
209 cord_individual_obj[indivial_i,:] = [21. 6. 165. 171.]
210 cord_individual_obj[indivial_i,:] = [22. 5. 78. 83.]
211 cord_individual_obj[indivial_i,:] = [23. 8. 25. 33.]
212 cord_individual_obj[indivial_i,:] = [24. 8. 87. 95.]
213
214 min(cord_individual_obj[:,3]) = 33.0
215 historl_G_best_iter[iter,3] = 33.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 9. 75. 84.]
220 cord_individual_obj[indivial_i,:] = [ 1. 8. 76. 84.]
221 cord_individual_obj[indivial_i,:] = [ 2. 8. 87. 95.]
222 cord_individual_obj[indivial_i,:] = [ 3. 7. 89. 96.]
223 cord_individual_obj[indivial_i,:] = [ 4. 9. 99. 108.]
224 cord_individual_obj[indivial_i,:] = [ 5. 5. 141. 146.]
225 cord_individual_obj[indivial_i,:] = [ 6. 8. 87. 95.]
226 cord_individual_obj[indivial_i,:] = [ 7. 9. 195. 204.]
227 cord_individual_obj[indivial_i,:] = [ 8. 9. 79. 88.]
228 cord_individual_obj[indivial_i,:] = [ 9. 10. 38. 48.]
229 cord_individual_obj[indivial_i,:] = [10. 10. 51. 61.]
230 cord_individual_obj[indivial_i,:] = [11. 8. 47. 55.]
231 cord_individual_obj[indivial_i,:] = [12. 8. 48. 56.]
232 cord_individual_obj[indivial_i,:] = [13. 8. 130. 138.]
233 cord_individual_obj[indivial_i,:] = [14. 6. 76. 82.]
234 cord_individual_obj[indivial_i,:] = [15. 8. 115. 123.]
235 cord_individual_obj[indivial_i,:] = [16. 11. 114. 125.]
236 cord_individual_obj[indivial_i,:] = [17. 9. 90. 99.]
237 cord_individual_obj[indivial_i,:] = [18. 7. 133. 140.]
238 cord_individual_obj[indivial_i,:] = [19. 6. 200. 206.]
239 cord_individual_obj[indivial_i,:] = [20. 8. 25. 33.]
240 cord_individual_obj[indivial_i,:] = [21. 8. 95. 103.]
241 cord_individual_obj[indivial_i,:] = [22. 6. 107. 113.]
242 cord_individual_obj[indivial_i,:] = [23. 5. 75. 80.]
243 cord_individual_obj[indivial_i,:] = [24. 8. 130. 138.]
244
245 min(cord_individual_obj[:,3]) = 33.0
246 historl_G_best_iter[iter,3] = 33.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 8. 109. 117.]
251 cord_individual_obj[indivial_i, :] = [ 1. 9. 146. 155.]
252 cord_individual_obj[indivial_i, :] = [ 2. 7. 151. 158.]
253 cord_individual_obj[indivial_i, :] = [ 3. 6. 134. 140.]
254 cord_individual_obj[indivial_i, :] = [ 4. 7. 104. 111.]
255 cord_individual_obj[indivial_i, :] = [ 5. 7. 164. 171.]
256 cord_individual_obj[indivial_i, :] = [ 6. 5. 130. 135.]
257 cord_individual_obj[indivial_i, :] = [ 7. 9. 67. 76.]
258 cord_individual_obj[indivial_i, :] = [ 8. 6. 78. 84.]
259 cord_individual_obj[indivial_i, :] = [ 9. 7. 91. 98.]
260 cord_individual_obj[indivial_i, :] = [10. 7. 51. 58.]
261 cord_individual_obj[indivial_i, :] = [11. 7. 61. 68.]
262 cord_individual_obj[indivial_i, :] = [12. 8. 53. 61.]
263 cord_individual_obj[indivial_i, :] = [13. 7. 55. 62.]
264 cord_individual_obj[indivial_i, :] = [14. 8. 30. 38.]
265 cord_individual_obj[indivial_i, :] = [15. 10. 83. 93.]
266 cord_individual_obj[indivial_i, :] = [16. 6. 118. 124.]
267 cord_individual_obj[indivial_i, :] = [17. 8. 59. 67.]
268 cord_individual_obj[indivial_i, :] = [18. 6. 34. 40.]
269 cord_individual_obj[indivial_i, :] = [19. 8. 25. 33.]
270 cord_individual_obj[indivial_i, :] = [20. 8. 81. 89.]
271 cord_individual_obj[indivial_i, :] = [21. 5. 47. 52.]
272 cord_individual_obj[indivial_i, :] = [22. 6. 125. 131.]
273 cord_individual_obj[indivial_i, :] = [23. 8. 95. 103.]
274 cord_individual_obj[indivial_i, :] = [24. 7. 69. 76.]
275

276 min(cord_individual_obj[:, 3]) = 33.0
277 historl_G_best_iter[iter, 3] = 33.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 8. 80. 88.]
282 cord_individual_obj[indivial_i, :] = [ 1. 7. 179. 186.]
283 cord_individual_obj[indivial_i, :] = [ 2. 9. 82. 91.]
284 cord_individual_obj[indivial_i, :] = [ 3. 8. 174. 182.]
285 cord_individual_obj[indivial_i, :] = [ 4. 9. 61. 70.]
286 cord_individual_obj[indivial_i, :] = [ 5. 8. 25. 33.]
287 cord_individual_obj[indivial_i, :] = [ 6. 9. 126. 135.]
288 cord_individual_obj[indivial_i, :] = [ 7. 6. 87. 93.]
289 cord_individual_obj[indivial_i, :] = [ 8. 6. 122. 128.]
290 cord_individual_obj[indivial_i, :] = [ 9. 9. 44. 53.]
291 cord_individual_obj[indivial_i, :] = [10. 8. 77. 85.]
292 cord_individual_obj[indivial_i, :] = [11. 7. 78. 85.]
293 cord_individual_obj[indivial_i, :] = [12. 6. 120. 126.]
294 cord_individual_obj[indivial_i, :] = [13. 7. 95. 102.]
295 cord_individual_obj[indivial_i, :] = [14. 6. 110. 116.]
296 cord_individual_obj[indivial_i, :] = [15. 9. 89. 98.]
297 cord_individual_obj[indivial_i, :] = [16. 8. 100. 108.]
298 cord_individual_obj[indivial_i, :] = [17. 8. 85. 93.]
299 cord_individual_obj[indivial_i, :] = [18. 6. 122. 128.]
300 cord_individual_obj[indivial_i, :] = [19. 5. 117. 122.]
301 cord_individual_obj[indivial_i, :] = [20. 8. 42. 50.]
302 cord_individual_obj[indivial_i, :] = [21. 7. 121. 128.]
303 cord_individual_obj[indivial_i, :] = [22. 7. 144. 151.]
304 cord_individual_obj[indivial_i, :] = [23. 6. 129. 135.]
305 cord_individual_obj[indivial_i, :] = [24. 10. 61. 71.]
306

307 min(cord_individual_obj[:, 3]) = 33.0
308 historl_G_best_iter[iter, 3] = 33.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 8. 82. 90.]
313 cord_individual_obj[indivial_i, :] = [ 1. 8. 25. 33.]
314 cord_individual_obj[indivial_i, :] = [ 2. 8. 106. 114.]
315 cord_individual_obj[indivial_i, :] = [ 3. 7. 137. 144.]
316 cord_individual_obj[indivial_i, :] = [ 4. 7. 91. 98.]
317 cord_individual_obj[indivial_i, :] = [ 5. 6. 107. 113.]
318 cord_individual_obj[indivial_i, :] = [ 6. 7. 84. 91.]
319 cord_individual_obj[indivial_i, :] = [ 7. 7. 101. 108.]
320 cord_individual_obj[indivial_i, :] = [ 8. 6. 57. 63.]
321 cord_individual_obj[indivial_i, :] = [ 9. 8. 84. 92.]
322 cord_individual_obj[indivial_i, :] = [10. 8. 41. 49.]
323 cord_individual_obj[indivial_i, :] = [11. 6. 75. 81.]
324 cord_individual_obj[indivial_i, :] = [12. 5. 112. 117.]
325 cord_individual_obj[indivial_i, :] = [13. 7. 120. 127.]
326 cord_individual_obj[indivial_i, :] = [14. 6. 90. 96.]
327 cord_individual_obj[indivial_i, :] = [15. 6. 72. 78.]
328 cord_individual_obj[indivial_i, :] = [16. 9. 125. 134.]
329 cord_individual_obj[indivial_i, :] = [17. 8. 106. 114.]
330 cord_individual_obj[indivial_i, :] = [18. 8. 112. 120.]
331 cord_individual_obj[indivial_i, :] = [19. 5. 153. 158.]

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unknown

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332 cord_individual_obj[indivial_i, :] = [20. 7. 51. 58.]  
333 cord_individual_obj[indivial_i, :] = [21. 7. 106. 113.]  
334 cord_individual_obj[indivial_i, :] = [22. 5. 156. 161.]  
335 cord_individual_obj[indivial_i, :] = [23. 5. 138. 143.]  
336 cord_individual_obj[indivial_i, :] = [24. 7. 141. 148.]  
337  
338 min(cord_individual_obj[:, 3]) = 33.0  
339 histol_G_best_iter[iter, 3] = 33.0  
340 Begin iteration:  
341  
342 iter = 10  
343 cord_individual_obj[indivial_i, :] = [ 0. 8. 108. 116.]  
344 cord_individual_obj[indivial_i, :] = [ 1. 8. 59. 67.]  
345 cord_individual_obj[indivial_i, :] = [ 2. 8. 79. 87.]  
346 cord_individual_obj[indivial_i, :] = [ 3. 7. 128. 135.]  
347 cord_individual_obj[indivial_i, :] = [ 4. 7. 94. 101.]  
348 cord_individual_obj[indivial_i, :] = [ 5. 7. 100. 107.]  
349 cord_individual_obj[indivial_i, :] = [ 6. 5. 95. 100.]  
350 cord_individual_obj[indivial_i, :] = [ 7. 8. 125. 133.]  
351 cord_individual_obj[indivial_i, :] = [ 8. 9. 123. 132.]  
352 cord_individual_obj[indivial_i, :] = [ 9. 9. 54. 63.]  
353 cord_individual_obj[indivial_i, :] = [10. 6. 76. 82.]  
354 cord_individual_obj[indivial_i, :] = [11. 6. 95. 101.]  
355 cord_individual_obj[indivial_i, :] = [12. 7. 94. 101.]  
356 cord_individual_obj[indivial_i, :] = [13. 7. 143. 150.]  
357 cord_individual_obj[indivial_i, :] = [14. 7. 90. 97.]  
358 cord_individual_obj[indivial_i, :] = [15. 8. 77. 85.]  
359 cord_individual_obj[indivial_i, :] = [16. 9. 124. 133.]  
360 cord_individual_obj[indivial_i, :] = [17. 8. 88. 96.]  
361 cord_individual_obj[indivial_i, :] = [18. 6. 58. 64.]  
362 cord_individual_obj[indivial_i, :] = [19. 5. 53. 58.]  
363 cord_individual_obj[indivial_i, :] = [20. 7. 59. 66.]  
364 cord_individual_obj[indivial_i, :] = [21. 8. 117. 125.]  
365 cord_individual_obj[indivial_i, :] = [22. 8. 25. 33.]  
366 cord_individual_obj[indivial_i, :] = [23. 6. 175. 181.]  
367 cord_individual_obj[indivial_i, :] = [24. 7. 96. 103.]  
368  
369 min(cord_individual_obj[:, 3]) = 33.0  
370 histol_G_best_iter[iter, 3] = 33.0  
371 Begin iteration:  
372  
373 iter = 11  
374 cord_individual_obj[indivial_i, :] = [ 0. 9. 81. 90.]  
375 cord_individual_obj[indivial_i, :] = [ 1. 9. 73. 82.]  
376 cord_individual_obj[indivial_i, :] = [ 2. 7. 81. 88.]  
377 cord_individual_obj[indivial_i, :] = [ 3. 8. 66. 74.]  
378 cord_individual_obj[indivial_i, :] = [ 4. 7. 84. 91.]  
379 cord_individual_obj[indivial_i, :] = [ 5. 7. 51. 58.]  
380 cord_individual_obj[indivial_i, :] = [ 6. 7. 78. 85.]  
381 cord_individual_obj[indivial_i, :] = [ 7. 7. 209. 216.]  
382 cord_individual_obj[indivial_i, :] = [ 8. 6. 47. 53.]  
383 cord_individual_obj[indivial_i, :] = [ 9. 10. 47. 57.]  
384 cord_individual_obj[indivial_i, :] = [10. 8. 111. 119.]  
385 cord_individual_obj[indivial_i, :] = [11. 9. 90. 99.]  
386 cord_individual_obj[indivial_i, :] = [12. 8. 72. 80.]  
387 cord_individual_obj[indivial_i, :] = [13. 7. 65. 72.]  
388 cord_individual_obj[indivial_i, :] = [14. 8. 94. 102.]  
389 cord_individual_obj[indivial_i, :] = [15. 7. 90. 97.]  
390 cord_individual_obj[indivial_i, :] = [16. 8. 152. 160.]  
391 cord_individual_obj[indivial_i, :] = [17. 8. 85. 93.]  
392 cord_individual_obj[indivial_i, :] = [18. 6. 100. 106.]  
393 cord_individual_obj[indivial_i, :] = [19. 6. 57. 63.]  
394 cord_individual_obj[indivial_i, :] = [20. 9. 68. 77.]  
395 cord_individual_obj[indivial_i, :] = [21. 6. 114. 120.]  
396 cord_individual_obj[indivial_i, :] = [22. 6. 110. 116.]  
397 cord_individual_obj[indivial_i, :] = [23. 8. 25. 33.]  
398 cord_individual_obj[indivial_i, :] = [24. 9. 109. 118.]  
399  
400 min(cord_individual_obj[:, 3]) = 33.0  
401 histol_G_best_iter[iter, 3] = 33.0  
402 Begin iteration:  
403  
404 iter = 12  
405 cord_individual_obj[indivial_i, :] = [ 0. 7. 54. 61.]  
406 cord_individual_obj[indivial_i, :] = [ 1. 7. 111. 118.]  
407 cord_individual_obj[indivial_i, :] = [ 2. 8. 86. 94.]  
408 cord_individual_obj[indivial_i, :] = [ 3. 6. 67. 73.]  
409 cord_individual_obj[indivial_i, :] = [ 4. 6. 112. 118.]  
410 cord_individual_obj[indivial_i, :] = [ 5. 6. 86. 92.]  
411 cord_individual_obj[indivial_i, :] = [ 6. 5. 145. 150.]  
412 cord_individual_obj[indivial_i, :] = [ 7. 8. 25. 33.]  
413 cord_individual_obj[indivial_i, :] = [ 8. 7. 61. 68.]  
414 cord_individual_obj[indivial_i, :] = [ 9. 9. 77. 86.]  
415 cord_individual_obj[indivial_i, :] = [10. 7. 59. 66.]
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```

416 cord_individual_obj[indivial_i,:] = [11. 7. 80. 87.]
417 cord_individual_obj[indivial_i,:] = [12. 8. 58. 66.]
418 cord_individual_obj[indivial_i,:] = [13. 7. 108. 115.]
419 cord_individual_obj[indivial_i,:] = [14. 6. 130. 136.]
420 cord_individual_obj[indivial_i,:] = [15. 11. 118. 129.]
421 cord_individual_obj[indivial_i,:] = [16. 10. 62. 72.]
422 cord_individual_obj[indivial_i,:] = [17. 7. 43. 50.]
423 cord_individual_obj[indivial_i,:] = [18. 7. 79. 86.]
424 cord_individual_obj[indivial_i,:] = [19. 7. 91. 98.]
425 cord_individual_obj[indivial_i,:] = [20. 9. 90. 99.]
426 cord_individual_obj[indivial_i,:] = [21. 6. 136. 142.]
427 cord_individual_obj[indivial_i,:] = [22. 8. 27. 35.]
428 cord_individual_obj[indivial_i,:] = [23. 5. 75. 80.]
429 cord_individual_obj[indivial_i,:] = [24. 8. 71. 79.]
430
431 min(cord_individual_obj[:,3]) = 33.0
432 histol_G_best_iter[iter,3] = 33.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 9. 150. 159.]
437 cord_individual_obj[indivial_i,:] = [ 1. 7. 119. 126.]
438 cord_individual_obj[indivial_i,:] = [ 2. 8. 75. 83.]
439 cord_individual_obj[indivial_i,:] = [ 3. 8. 67. 75.]
440 cord_individual_obj[indivial_i,:] = [ 4. 7. 176. 183.]
441 cord_individual_obj[indivial_i,:] = [ 5. 6. 105. 111.]
442 cord_individual_obj[indivial_i,:] = [ 6. 8. 25. 33.]
443 cord_individual_obj[indivial_i,:] = [ 7. 6. 80. 86.]
444 cord_individual_obj[indivial_i,:] = [ 8. 8. 72. 80.]
445 cord_individual_obj[indivial_i,:] = [ 9. 8. 78. 86.]
446 cord_individual_obj[indivial_i,:] = [10. 9. 82. 91.]
447 cord_individual_obj[indivial_i,:] = [11. 7. 85. 92.]
448 cord_individual_obj[indivial_i,:] = [12. 6. 101. 107.]
449 cord_individual_obj[indivial_i,:] = [13. 6. 112. 118.]
450 cord_individual_obj[indivial_i,:] = [14. 8. 74. 82.]
451 cord_individual_obj[indivial_i,:] = [15. 9. 67. 76.]
452 cord_individual_obj[indivial_i,:] = [16. 11. 74. 85.]
453 cord_individual_obj[indivial_i,:] = [17. 8. 72. 80.]
454 cord_individual_obj[indivial_i,:] = [18. 5. 112. 117.]
455 cord_individual_obj[indivial_i,:] = [19. 7. 168. 175.]
456 cord_individual_obj[indivial_i,:] = [20. 6. 82. 88.]
457 cord_individual_obj[indivial_i,:] = [21. 6. 42. 48.]
458 cord_individual_obj[indivial_i,:] = [22. 8. 98. 106.]
459 cord_individual_obj[indivial_i,:] = [23. 8. 112. 120.]
460 cord_individual_obj[indivial_i,:] = [24. 8. 138. 146.]
461
462 min(cord_individual_obj[:,3]) = 33.0
463 histol_G_best_iter[iter,3] = 33.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 8. 67. 75.]
468 cord_individual_obj[indivial_i,:] = [ 1. 7. 57. 64.]
469 cord_individual_obj[indivial_i,:] = [ 2. 6. 85. 91.]
470 cord_individual_obj[indivial_i,:] = [ 3. 7. 95. 102.]
471 cord_individual_obj[indivial_i,:] = [ 4. 8. 25. 33.]
472 cord_individual_obj[indivial_i,:] = [ 5. 5. 110. 115.]
473 cord_individual_obj[indivial_i,:] = [ 6. 8. 99. 107.]
474 cord_individual_obj[indivial_i,:] = [ 7. 7. 117. 124.]
475 cord_individual_obj[indivial_i,:] = [ 8. 8. 146. 154.]
476 cord_individual_obj[indivial_i,:] = [ 9. 6. 93. 99.]
477 cord_individual_obj[indivial_i,:] = [10. 7. 57. 64.]
478 cord_individual_obj[indivial_i,:] = [11. 6. 117. 123.]
479 cord_individual_obj[indivial_i,:] = [12. 8. 90. 98.]
480 cord_individual_obj[indivial_i,:] = [13. 8. 92. 100.]
481 cord_individual_obj[indivial_i,:] = [14. 6. 116. 122.]
482 cord_individual_obj[indivial_i,:] = [15. 7. 91. 98.]
483 cord_individual_obj[indivial_i,:] = [16. 9. 99. 108.]
484 cord_individual_obj[indivial_i,:] = [17. 8. 56. 64.]
485 cord_individual_obj[indivial_i,:] = [18. 6. 136. 142.]
486 cord_individual_obj[indivial_i,:] = [19. 6. 158. 164.]
487 cord_individual_obj[indivial_i,:] = [20. 7. 53. 60.]
488 cord_individual_obj[indivial_i,:] = [21. 6. 83. 89.]
489 cord_individual_obj[indivial_i,:] = [22. 7. 72. 79.]
490 cord_individual_obj[indivial_i,:] = [23. 6. 95. 101.]
491 cord_individual_obj[indivial_i,:] = [24. 8. 128. 136.]
492
493 min(cord_individual_obj[:,3]) = 33.0
494 histol_G_best_iter[iter,3] = 33.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 7. 40. 47.]
499 cord_individual_obj[indivial_i,:] = [ 1. 8. 183. 191.]

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500 cord_individual_obj[indivial_i,:] = [ 2. 10. 64. 74.]
501 cord_individual_obj[indivial_i,:] = [ 3. 6. 87. 93.]
502 cord_individual_obj[indivial_i,:] = [ 4. 7. 139. 146.]
503 cord_individual_obj[indivial_i,:] = [ 5. 8. 58. 66.]
504 cord_individual_obj[indivial_i,:] = [ 6. 6. 47. 53.]
505 cord_individual_obj[indivial_i,:] = [ 7. 8. 44. 52.]
506 cord_individual_obj[indivial_i,:] = [ 8. 8. 112. 120.]
507 cord_individual_obj[indivial_i,:] = [ 9. 7. 88. 95.]
508 cord_individual_obj[indivial_i,:] = [10. 9. 47. 56.]
509 cord_individual_obj[indivial_i,:] = [11. 8. 41. 49.]
510 cord_individual_obj[indivial_i,:] = [12. 7. 112. 119.]
511 cord_individual_obj[indivial_i,:] = [13. 9. 118. 127.]
512 cord_individual_obj[indivial_i,:] = [14. 6. 104. 110.]
513 cord_individual_obj[indivial_i,:] = [15. 11. 82. 93.]
514 cord_individual_obj[indivial_i,:] = [16. 9. 93. 102.]
515 cord_individual_obj[indivial_i,:] = [17. 9. 35. 44.]
516 cord_individual_obj[indivial_i,:] = [18. 6. 38. 44.]
517 cord_individual_obj[indivial_i,:] = [19. 8. 25. 33.]
518 cord_individual_obj[indivial_i,:] = [20. 7. 147. 154.]
519 cord_individual_obj[indivial_i,:] = [21. 6. 98. 104.]
520 cord_individual_obj[indivial_i,:] = [22. 6. 43. 49.]
521 cord_individual_obj[indivial_i,:] = [23. 7. 104. 111.]
522 cord_individual_obj[indivial_i,:] = [24. 7. 70. 77.]
523
524 min(cord_individual_obj[:,3]) = 33.0
525 histol_G_best_iter[iter,3] = 33.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i,:] = [ 0. 8. 68. 76.]
530 cord_individual_obj[indivial_i,:] = [ 1. 8. 25. 33.]
531 cord_individual_obj[indivial_i,:] = [ 2. 6. 67. 73.]
532 cord_individual_obj[indivial_i,:] = [ 3. 7. 95. 102.]
533 cord_individual_obj[indivial_i,:] = [ 4. 8. 45. 53.]
534 cord_individual_obj[indivial_i,:] = [ 5. 7. 125. 132.]
535 cord_individual_obj[indivial_i,:] = [ 6. 8. 99. 107.]
536 cord_individual_obj[indivial_i,:] = [ 7. 8. 122. 130.]
537 cord_individual_obj[indivial_i,:] = [ 8. 7. 106. 113.]
538 cord_individual_obj[indivial_i,:] = [ 9. 6. 95. 101.]
539 cord_individual_obj[indivial_i,:] = [10. 7. 77. 84.]
540 cord_individual_obj[indivial_i,:] = [11. 6. 118. 124.]
541 cord_individual_obj[indivial_i,:] = [12. 7. 91. 98.]
542 cord_individual_obj[indivial_i,:] = [13. 8. 90. 98.]
543 cord_individual_obj[indivial_i,:] = [14. 6. 89. 95.]
544 cord_individual_obj[indivial_i,:] = [15. 8. 118. 126.]
545 cord_individual_obj[indivial_i,:] = [16. 9. 112. 121.]
546 cord_individual_obj[indivial_i,:] = [17. 7. 118. 125.]
547 cord_individual_obj[indivial_i,:] = [18. 5. 126. 131.]
548 cord_individual_obj[indivial_i,:] = [19. 5. 117. 122.]
549 cord_individual_obj[indivial_i,:] = [20. 7. 53. 60.]
550 cord_individual_obj[indivial_i,:] = [21. 6. 77. 83.]
551 cord_individual_obj[indivial_i,:] = [22. 6. 101. 107.]
552 cord_individual_obj[indivial_i,:] = [23. 7. 112. 119.]
553 cord_individual_obj[indivial_i,:] = [24. 8. 90. 98.]
554
555 min(cord_individual_obj[:,3]) = 33.0
556 histol_G_best_iter[iter,3] = 33.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i,:] = [ 0. 9. 56. 65.]
561 cord_individual_obj[indivial_i,:] = [ 1. 8. 55. 63.]
562 cord_individual_obj[indivial_i,:] = [ 2. 7. 76. 83.]
563 cord_individual_obj[indivial_i,:] = [ 3. 7. 81. 88.]
564 cord_individual_obj[indivial_i,:] = [ 4. 7. 72. 79.]
565 cord_individual_obj[indivial_i,:] = [ 5. 8. 25. 33.]
566 cord_individual_obj[indivial_i,:] = [ 6. 7. 90. 97.]
567 cord_individual_obj[indivial_i,:] = [ 7. 8. 93. 101.]
568 cord_individual_obj[indivial_i,:] = [ 8. 9. 126. 135.]
569 cord_individual_obj[indivial_i,:] = [ 9. 7. 105. 112.]
570 cord_individual_obj[indivial_i,:] = [10. 6. 48. 54.]
571 cord_individual_obj[indivial_i,:] = [11. 7. 148. 155.]
572 cord_individual_obj[indivial_i,:] = [12. 8. 52. 60.]
573 cord_individual_obj[indivial_i,:] = [13. 8. 108. 116.]
574 cord_individual_obj[indivial_i,:] = [14. 7. 123. 130.]
575 cord_individual_obj[indivial_i,:] = [15. 8. 79. 87.]
576 cord_individual_obj[indivial_i,:] = [16. 10. 83. 93.]
577 cord_individual_obj[indivial_i,:] = [17. 7. 180. 187.]
578 cord_individual_obj[indivial_i,:] = [18. 6. 50. 56.]
579 cord_individual_obj[indivial_i,:] = [19. 6. 198. 204.]
580 cord_individual_obj[indivial_i,:] = [20. 8. 93. 101.]
581 cord_individual_obj[indivial_i,:] = [21. 6. 76. 82.]
582 cord_individual_obj[indivial_i,:] = [22. 8. 117. 125.]
583 cord_individual_obj[indivial_i,:] = [23. 6. 149. 155.]

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unknown

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584     cord_individual_obj[indivial_i, :] = [24. 6. 56. 62.]  
585  
586     min(cord_individual_obj[:, 3]) = 33.0  
587     historl_G_best_iter[iter, 3] = 33.0  
588 Begin iteration:  
589  
590 iter = 18  
591     cord_individual_obj[indivial_i, :] = [ 0. 8. 100. 108.]  
592     cord_individual_obj[indivial_i, :] = [ 1. 8. 147. 155.]  
593     cord_individual_obj[indivial_i, :] = [ 2. 8. 67. 75.]  
594     cord_individual_obj[indivial_i, :] = [ 3. 7. 81. 88.]  
595     cord_individual_obj[indivial_i, :] = [ 4. 7. 100. 107.]  
596     cord_individual_obj[indivial_i, :] = [ 5. 7. 113. 120.]  
597     cord_individual_obj[indivial_i, :] = [ 6. 6. 57. 63.]  
598     cord_individual_obj[indivial_i, :] = [ 7. 7. 93. 100.]  
599     cord_individual_obj[indivial_i, :] = [ 8. 7. 92. 99.]  
600     cord_individual_obj[indivial_i, :] = [ 9. 7. 43. 50.]  
601     cord_individual_obj[indivial_i, :] = [10. 7. 92. 99.]  
602     cord_individual_obj[indivial_i, :] = [11. 7. 118. 125.]  
603     cord_individual_obj[indivial_i, :] = [12. 9. 57. 66.]  
604     cord_individual_obj[indivial_i, :] = [13. 6. 114. 120.]  
605     cord_individual_obj[indivial_i, :] = [14. 7. 78. 85.]  
606     cord_individual_obj[indivial_i, :] = [15. 7. 77. 84.]  
607     cord_individual_obj[indivial_i, :] = [16. 8. 59. 67.]  
608     cord_individual_obj[indivial_i, :] = [17. 8. 83. 91.]  
609     cord_individual_obj[indivial_i, :] = [18. 8. 52. 60.]  
610     cord_individual_obj[indivial_i, :] = [19. 8. 25. 33.]  
611     cord_individual_obj[indivial_i, :] = [20. 8. 87. 95.]  
612     cord_individual_obj[indivial_i, :] = [21. 7. 78. 85.]  
613     cord_individual_obj[indivial_i, :] = [22. 6. 183. 189.]  
614     cord_individual_obj[indivial_i, :] = [23. 8. 105. 113.]  
615     cord_individual_obj[indivial_i, :] = [24. 9. 125. 134.]  
616  
617     min(cord_individual_obj[:, 3]) = 33.0  
618     historl_G_best_iter[iter, 3] = 33.0  
619 Begin iteration:  
620  
621 iter = 19  
622     cord_individual_obj[indivial_i, :] = [ 0. 8. 76. 84.]  
623     cord_individual_obj[indivial_i, :] = [ 1. 8. 130. 138.]  
624     cord_individual_obj[indivial_i, :] = [ 2. 7. 88. 95.]  
625     cord_individual_obj[indivial_i, :] = [ 3. 7. 85. 92.]  
626     cord_individual_obj[indivial_i, :] = [ 4. 8. 89. 97.]  
627     cord_individual_obj[indivial_i, :] = [ 5. 7. 26. 33.]  
628     cord_individual_obj[indivial_i, :] = [ 6. 8. 92. 100.]  
629     cord_individual_obj[indivial_i, :] = [ 7. 8. 154. 162.]  
630     cord_individual_obj[indivial_i, :] = [ 8. 8. 124. 132.]  
631     cord_individual_obj[indivial_i, :] = [ 9. 7. 144. 151.]  
632     cord_individual_obj[indivial_i, :] = [10. 9. 76. 85.]  
633     cord_individual_obj[indivial_i, :] = [11. 8. 84. 92.]  
634     cord_individual_obj[indivial_i, :] = [12. 6. 75. 81.]  
635     cord_individual_obj[indivial_i, :] = [13. 7. 95. 102.]  
636     cord_individual_obj[indivial_i, :] = [14. 7. 152. 159.]  
637     cord_individual_obj[indivial_i, :] = [15. 7. 52. 59.]  
638     cord_individual_obj[indivial_i, :] = [16. 9. 58. 67.]  
639     cord_individual_obj[indivial_i, :] = [17. 9. 71. 80.]  
640     cord_individual_obj[indivial_i, :] = [18. 7. 213. 220.]  
641     cord_individual_obj[indivial_i, :] = [19. 6. 150. 156.]  
642     cord_individual_obj[indivial_i, :] = [20. 7. 113. 120.]  
643     cord_individual_obj[indivial_i, :] = [21. 9. 178. 187.]  
644     cord_individual_obj[indivial_i, :] = [22. 8. 25. 33.]  
645     cord_individual_obj[indivial_i, :] = [23. 6. 79. 85.]  
646     cord_individual_obj[indivial_i, :] = [24. 7. 99. 106.]  
647  
648     min(cord_individual_obj[:, 3]) = 33.0  
649     historl_G_best_iter[iter, 3] = 33.0  
650 Begin iteration:  
651  
652 iter = 20  
653     cord_individual_obj[indivial_i, :] = [ 0. 7. 97. 104.]  
654     cord_individual_obj[indivial_i, :] = [ 1. 7. 96. 103.]  
655     cord_individual_obj[indivial_i, :] = [ 2. 8. 100. 108.]  
656     cord_individual_obj[indivial_i, :] = [ 3. 9. 57. 66.]  
657     cord_individual_obj[indivial_i, :] = [ 4. 8. 63. 71.]  
658     cord_individual_obj[indivial_i, :] = [ 5. 8. 76. 84.]  
659     cord_individual_obj[indivial_i, :] = [ 6. 7. 100. 107.]  
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 54. 63.]  
661     cord_individual_obj[indivial_i, :] = [ 8. 7. 34. 41.]  
662     cord_individual_obj[indivial_i, :] = [ 9. 7. 194. 201.]  
663     cord_individual_obj[indivial_i, :] = [10. 8. 108. 116.]  
664     cord_individual_obj[indivial_i, :] = [11. 7. 83. 90.]  
665     cord_individual_obj[indivial_i, :] = [12. 10. 102. 112.]  
666     cord_individual_obj[indivial_i, :] = [13. 8. 199. 207.]  
667     cord_individual_obj[indivial_i, :] = [14. 7. 83. 90.]
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668 cord_individual_obj[indivial_i,:] = [15. 6. 67. 73.]
669 cord_individual_obj[indivial_i,:] = [16. 10. 127. 137.]
670 cord_individual_obj[indivial_i,:] = [17. 7. 42. 49.]
671 cord_individual_obj[indivial_i,:] = [18. 7. 26. 33.]
672 cord_individual_obj[indivial_i,:] = [19. 6. 142. 148.]
673 cord_individual_obj[indivial_i,:] = [20. 8. 55. 63.]
674 cord_individual_obj[indivial_i,:] = [21. 6. 94. 100.]
675 cord_individual_obj[indivial_i,:] = [22. 8. 93. 101.]
676 cord_individual_obj[indivial_i,:] = [23. 9. 56. 65.]
677 cord_individual_obj[indivial_i,:] = [24. 8. 118. 126.]
678
679 min(cord_individual_obj[:, 3]) = 33.0
680 historl_G_best_iter[iter, 3] = 33.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 168.0
689 Proportion_of_area = 0.15555555555555556
690 BEST_CHROM =
691     berth: [23. 1.5 14.5 23.5 2.5 3.5 5. 7.5 3.5 21.5 9.5 16. ]
692     time: [2. 0. 3. 0. 4. 2. 0. 4. 6. 5. 0. 0.]
693     num_QC: [3. 3. 2. 3. 4. 3. 4. 4. 4. 4. 4. 3.]
694 Objective function values and some other indicators:
695 Obj0 = 7.00          Obj1 = 26.00          Obj0 + Obj1 = 33.00
696 Total movement of crane: 0.00
697 Total waiting time in berth position: 26.00
698 Total index of q during berthing: 729.00
699 Specific arrangement for each vessel:
700
    V_id: 0           li: 6.0           xi: 23.0           bow of i: 20.0           tail of i: 26.0           gama_i0: 2.0           gama_i1: 4
    .0             gama_i1 + 1: 5.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 140.0           work
    load_i: 140.0
    work load gap_i: 0
701
    V_id: 1           li: 3.0           xi: 1.5           bow of i: 0.0           tail of i: 3.0           gama_i0: 0.0           gama_i1: 1.0
    .0             gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work load_i:
    80.0
    work load gap_i: 0
702
    V_id: 2           li: 9.0           xi: 14.5           bow of i: 10.0           tail of i: 19.0           gama_i0: 3.0           gama_i1: 4
    .0             gama_i1 + 1: 5.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 60.0           work
    load_i: 60.0
    work load gap_i: 0
703
    V_id: 3           li: 7.0           xi: 23.5           bow of i: 20.0           tail of i: 27.0           gama_i0: 0.0           gama_i1: 1
    .0             gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 120.0           work
    load_i: 120.0
    work load gap_i: 0
704
    V_id: 4           li: 5.0           xi: 2.5           bow of i: 0.0           tail of i: 5.0           gama_i0: 4.0           gama_i1: 5
    .0             gama_i1 + 1: 6.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work load_i:
    160.0
    work load gap_i: 0
705
    V_id: 5           li: 7.0           xi: 3.5           bow of i: 0.0           tail of i: 7.0           gama_i0: 2.0           gama_i1: 3
    .0             gama_i1 + 1: 4.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 80.0           work load_i:
    80.0
    work load gap_i: 0
706
    V_id: 6           li: 4.0           xi: 5.0           bow of i: 3.0           tail of i: 7.0           gama_i0: 0.0           gama_i1: 1
    .0             gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work load_i:
    140.0
    work load gap_i: 0
707
    V_id: 7           li: 5.0           xi: 7.5           bow of i: 5.0           tail of i: 10.0           gama_i0: 4.0           gama_i1: 5
    .0             gama_i1 + 1: 6.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work load_i:
    140.0
    work load gap_i: 0
708
    V_id: 8           li: 7.0           xi: 3.5           bow of i: 0.0           tail of i: 7.0           gama_i0: 6.0           gama_i1: 7
    .0             gama_i1 + 1: 8.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work load_i:
    140.0
    work load gap_i: 0
709
    V_id: 9           li: 5.0           xi: 21.5           bow of i: 19.0           tail of i: 24.0           gama_i0: 5.0           gama_i1: 6
    .0             gama_i1 + 1: 7.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 160.0           work
    load_i: 160.0
    work load gap_i: 0
710
    V_id: 10          li: 5.0           xi: 9.5           bow of i: 7.0           tail of i: 12.0           gama_i0: 0.0           gama_i1: 1
    .0             gama_i1 + 1: 2.0       gama_i1 - gama_i0: 1.0           duration_time_i: 2.0           demand_i: 140.0           work
    load_i: 140.0
    work load gap_i: 0
711
    V_id: 11          li: 8.0           xi: 16.0           bow of i: 12.0           tail of i: 20.0           gama_i0: 0.0           gama_i1: 1
    .0             gama_i1 + 1: 3.0       gama_i1 - gama_i0: 2.0           duration_time_i: 3.0           demand_i: 160.0           work
    load_i: 160.0
    work load gap_i: 0
712
713 Algorithm finished and the total CPU time: 323 s
714 End
715

```