

unknown

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80 cord_individual_obj[indivial_i,:] = [ 16. 11. 133. 144.]
81 cord_individual_obj[indivial_i,:] = [ 17. 10. 124. 134.]
82 cord_individual_obj[indivial_i,:] = [ 18. 11. 134. 145.]
83 cord_individual_obj[indivial_i,:] = [ 19. 9. 192. 201.]
84 cord_individual_obj[indivial_i,:] = [ 20. 12. 121. 133.]
85 cord_individual_obj[indivial_i,:] = [21. 9. 90. 99.]
86 cord_individual_obj[indivial_i,:] = [ 22. 8. 106. 114.]
87 cord_individual_obj[indivial_i,:] = [ 23. 10. 173. 183.]
88 cord_individual_obj[indivial_i,:] = [ 24. 10. 152. 162.]
89
90 min(cord_individual_obj[:,3]) = 99.0
91 historl_G_best_iter[iter, 3] = 99.0
92 Begin iteration:
93
94 iter = 2
95 cord_individual_obj[indivial_i,:] = [ 0. 11. 154. 165.]
96 cord_individual_obj[indivial_i,:] = [ 1. 15. 151. 166.]
97 cord_individual_obj[indivial_i,:] = [ 2. 12. 134. 146.]
98 cord_individual_obj[indivial_i,:] = [ 3. 8. 138. 146.]
99 cord_individual_obj[indivial_i,:] = [ 4. 12. 141. 153.]
100 cord_individual_obj[indivial_i,:] = [ 5. 10. 189. 199.]
101 cord_individual_obj[indivial_i,:] = [ 6. 11. 187. 198.]
102 cord_individual_obj[indivial_i,:] = [ 7. 9. 115. 124.]
103 cord_individual_obj[indivial_i,:] = [ 8. 9. 90. 99.]
104 cord_individual_obj[indivial_i,:] = [ 9. 12. 160. 172.]
105 cord_individual_obj[indivial_i,:] = [ 10. 11. 137. 148.]
106 cord_individual_obj[indivial_i,:] = [ 11. 11. 212. 223.]
107 cord_individual_obj[indivial_i,:] = [ 12. 12. 81. 93.]
108 cord_individual_obj[indivial_i,:] = [ 13. 10. 197. 207.]
109 cord_individual_obj[indivial_i,:] = [ 14. 10. 176. 186.]
110 cord_individual_obj[indivial_i,:] = [ 15. 11. 156. 167.]
111 cord_individual_obj[indivial_i,:] = [ 16. 12. 127. 139.]
112 cord_individual_obj[indivial_i,:] = [ 17. 10. 100. 110.]
113 cord_individual_obj[indivial_i,:] = [ 18. 12. 187. 199.]
114 cord_individual_obj[indivial_i,:] = [ 19. 9. 186. 195.]
115 cord_individual_obj[indivial_i,:] = [ 20. 9. 166. 175.]
116 cord_individual_obj[indivial_i,:] = [ 21. 11. 142. 153.]
117 cord_individual_obj[indivial_i,:] = [ 22. 10. 137. 147.]
118 cord_individual_obj[indivial_i,:] = [ 23. 10. 108. 118.]
119 cord_individual_obj[indivial_i,:] = [ 24. 12. 175. 187.]
120
121 min(cord_individual_obj[:,3]) = 93.0
122 historl_G_best_iter[iter, 3] = 93.0
123 Begin iteration:
124
125 iter = 3
126 cord_individual_obj[indivial_i,:] = [ 0. 12. 177. 189.]
127 cord_individual_obj[indivial_i,:] = [ 1. 11. 220. 231.]
128 cord_individual_obj[indivial_i,:] = [ 2. 9. 125. 134.]
129 cord_individual_obj[indivial_i,:] = [ 3. 9. 161. 170.]
130 cord_individual_obj[indivial_i,:] = [ 4. 9. 148. 157.]
131 cord_individual_obj[indivial_i,:] = [ 5. 13. 188. 201.]
132 cord_individual_obj[indivial_i,:] = [ 6. 11. 153. 164.]
133 cord_individual_obj[indivial_i,:] = [ 7. 11. 185. 196.]
134 cord_individual_obj[indivial_i,:] = [ 8. 12. 197. 209.]
135 cord_individual_obj[indivial_i,:] = [ 9. 10. 153. 163.]
136 cord_individual_obj[indivial_i,:] = [ 10. 9. 127. 136.]
137 cord_individual_obj[indivial_i,:] = [ 11. 12. 81. 93.]
138 cord_individual_obj[indivial_i,:] = [ 12. 9. 155. 164.]
139 cord_individual_obj[indivial_i,:] = [ 13. 11. 199. 210.]
140 cord_individual_obj[indivial_i,:] = [ 14. 11. 117. 128.]
141 cord_individual_obj[indivial_i,:] = [ 15. 9. 251. 260.]
142 cord_individual_obj[indivial_i,:] = [ 16. 12. 192. 204.]
143 cord_individual_obj[indivial_i,:] = [ 17. 10. 141. 151.]
144 cord_individual_obj[indivial_i,:] = [ 18. 11. 133. 144.]
145 cord_individual_obj[indivial_i,:] = [ 19. 9. 196. 205.]
146 cord_individual_obj[indivial_i,:] = [ 20. 10. 177. 187.]
147 cord_individual_obj[indivial_i,:] = [ 21. 9. 134. 143.]
148 cord_individual_obj[indivial_i,:] = [ 22. 9. 144. 153.]
149 cord_individual_obj[indivial_i,:] = [ 23. 10. 170. 180.]
150 cord_individual_obj[indivial_i,:] = [ 24. 13. 142. 155.]
151
152 min(cord_individual_obj[:,3]) = 93.0
153 historl_G_best_iter[iter, 3] = 93.0
154 Begin iteration:
155
156 iter = 4
157 cord_individual_obj[indivial_i,:] = [ 0. 9. 141. 150.]
158 cord_individual_obj[indivial_i,:] = [ 1. 10. 147. 157.]
159 cord_individual_obj[indivial_i,:] = [ 2. 10. 148. 158.]
160 cord_individual_obj[indivial_i,:] = [ 3. 10. 203. 213.]
161 cord_individual_obj[indivial_i,:] = [ 4. 12. 119. 131.]
162 cord_individual_obj[indivial_i,:] = [ 5. 11. 187. 198.]
163 cord_individual_obj[indivial_i,:] = [ 6. 9. 140. 149.]

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164 cord_individual_obj[indivial_i,:] = [ 7. 13. 176. 189.]
165 cord_individual_obj[indivial_i,:] = [ 8. 9. 130. 139.]
166 cord_individual_obj[indivial_i,:] = [ 9. 9. 139. 148.]
167 cord_individual_obj[indivial_i,:] = [ 10. 11. 159. 170.]
168 cord_individual_obj[indivial_i,:] = [ 11. 12. 118. 130.]
169 cord_individual_obj[indivial_i,:] = [ 12. 8. 175. 183.]
170 cord_individual_obj[indivial_i,:] = [ 13. 10. 181. 191.]
171 cord_individual_obj[indivial_i,:] = [ 14. 11. 131. 142.]
172 cord_individual_obj[indivial_i,:] = [ 15. 12. 81. 93.]
173 cord_individual_obj[indivial_i,:] = [ 16. 10. 148. 158.]
174 cord_individual_obj[indivial_i,:] = [ 17. 10. 81. 91.]
175 cord_individual_obj[indivial_i,:] = [ 18. 11. 141. 152.]
176 cord_individual_obj[indivial_i,:] = [ 19. 9. 162. 171.]
177 cord_individual_obj[indivial_i,:] = [ 20. 13. 119. 132.]
178 cord_individual_obj[indivial_i,:] = [ 21. 10. 155. 165.]
179 cord_individual_obj[indivial_i,:] = [ 22. 12. 104. 116.]
180 cord_individual_obj[indivial_i,:] = [ 23. 11. 120. 131.]
181 cord_individual_obj[indivial_i,:] = [ 24. 10. 196. 206.]
182
183 min(cord_individual_obj[:,3]) = 91.0
184 historl_G_best_iter[iter, 3] = 91.0
185 Begin iteration:
186
187 iter = 5
188 cord_individual_obj[indivial_i,:] = [ 0. 10. 130. 140.]
189 cord_individual_obj[indivial_i,:] = [ 1. 9. 127. 136.]
190 cord_individual_obj[indivial_i,:] = [ 2. 12. 188. 200.]
191 cord_individual_obj[indivial_i,:] = [ 3. 10. 81. 91.]
192 cord_individual_obj[indivial_i,:] = [ 4. 10. 121. 131.]
193 cord_individual_obj[indivial_i,:] = [ 5. 13. 141. 154.]
194 cord_individual_obj[indivial_i,:] = [ 6. 11. 162. 173.]
195 cord_individual_obj[indivial_i,:] = [ 7. 11. 191. 202.]
196 cord_individual_obj[indivial_i,:] = [ 8. 8. 171. 179.]
197 cord_individual_obj[indivial_i,:] = [ 9. 10. 162. 172.]
198 cord_individual_obj[indivial_i,:] = [ 10. 11. 190. 201.]
199 cord_individual_obj[indivial_i,:] = [ 11. 14. 206. 220.]
200 cord_individual_obj[indivial_i,:] = [ 12. 10. 198. 208.]
201 cord_individual_obj[indivial_i,:] = [ 13. 9. 221. 230.]
202 cord_individual_obj[indivial_i,:] = [ 14. 11. 76. 87.]
203 cord_individual_obj[indivial_i,:] = [ 15. 11. 146. 157.]
204 cord_individual_obj[indivial_i,:] = [ 16. 9. 140. 149.]
205 cord_individual_obj[indivial_i,:] = [ 17. 9. 145. 154.]
206 cord_individual_obj[indivial_i,:] = [ 18. 11. 100. 111.]
207 cord_individual_obj[indivial_i,:] = [ 19. 12. 222. 234.]
208 cord_individual_obj[indivial_i,:] = [ 20. 11. 181. 192.]
209 cord_individual_obj[indivial_i,:] = [ 21. 10. 152. 162.]
210 cord_individual_obj[indivial_i,:] = [ 22. 9. 158. 167.]
211 cord_individual_obj[indivial_i,:] = [ 23. 11. 171. 182.]
212 cord_individual_obj[indivial_i,:] = [ 24. 11. 80. 91.]
213
214 min(cord_individual_obj[:,3]) = 87.0
215 historl_G_best_iter[iter, 3] = 87.0
216 Begin iteration:
217
218 iter = 6
219 cord_individual_obj[indivial_i,:] = [ 0. 12. 151. 163.]
220 cord_individual_obj[indivial_i,:] = [ 1. 9. 169. 178.]
221 cord_individual_obj[indivial_i,:] = [ 2. 13. 110. 123.]
222 cord_individual_obj[indivial_i,:] = [ 3. 12. 139. 151.]
223 cord_individual_obj[indivial_i,:] = [ 4. 10. 156. 166.]
224 cord_individual_obj[indivial_i,:] = [ 5. 9. 160. 169.]
225 cord_individual_obj[indivial_i,:] = [ 6. 13. 143. 156.]
226 cord_individual_obj[indivial_i,:] = [ 7. 9. 176. 185.]
227 cord_individual_obj[indivial_i,:] = [ 8. 10. 91. 101.]
228 cord_individual_obj[indivial_i,:] = [ 9. 11. 147. 158.]
229 cord_individual_obj[indivial_i,:] = [ 10. 12. 175. 187.]
230 cord_individual_obj[indivial_i,:] = [ 11. 10. 123. 133.]
231 cord_individual_obj[indivial_i,:] = [ 12. 11. 109. 120.]
232 cord_individual_obj[indivial_i,:] = [ 13. 12. 132. 144.]
233 cord_individual_obj[indivial_i,:] = [ 14. 9. 268. 277.]
234 cord_individual_obj[indivial_i,:] = [ 15. 10. 148. 158.]
235 cord_individual_obj[indivial_i,:] = [ 16. 11. 200. 211.]
236 cord_individual_obj[indivial_i,:] = [ 17. 9. 200. 209.]
237 cord_individual_obj[indivial_i,:] = [ 18. 13. 122. 135.]
238 cord_individual_obj[indivial_i,:] = [ 19. 11. 76. 87.]
239 cord_individual_obj[indivial_i,:] = [ 20. 12. 127. 139.]
240 cord_individual_obj[indivial_i,:] = [ 21. 9. 121. 130.]
241 cord_individual_obj[indivial_i,:] = [ 22. 10. 158. 168.]
242 cord_individual_obj[indivial_i,:] = [ 23. 10. 88. 98.]
243 cord_individual_obj[indivial_i,:] = [ 24. 10. 180. 190.]
244
245 min(cord_individual_obj[:,3]) = 87.0
246 historl_G_best_iter[iter, 3] = 87.0
247 Begin iteration:

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248
249 iter = 7
250 cord_individual_obj[indivial_i, :] = [ 0. 10. 178. 188.]
251 cord_individual_obj[indivial_i, :] = [ 1. 10. 137. 147.]
252 cord_individual_obj[indivial_i, :] = [ 2. 10. 228. 238.]
253 cord_individual_obj[indivial_i, :] = [ 3. 9. 90. 99.]
254 cord_individual_obj[indivial_i, :] = [ 4. 11. 161. 172.]
255 cord_individual_obj[indivial_i, :] = [ 5. 13. 158. 171.]
256 cord_individual_obj[indivial_i, :] = [ 6. 11. 163. 174.]
257 cord_individual_obj[indivial_i, :] = [ 7. 10. 139. 149.]
258 cord_individual_obj[indivial_i, :] = [ 8. 11. 159. 170.]
259 cord_individual_obj[indivial_i, :] = [ 9. 9. 154. 163.]
260 cord_individual_obj[indivial_i, :] = [ 10. 10. 124. 134.]
261 cord_individual_obj[indivial_i, :] = [ 11. 10. 153. 163.]
262 cord_individual_obj[indivial_i, :] = [ 12. 10. 141. 151.]
263 cord_individual_obj[indivial_i, :] = [ 13. 13. 175. 188.]
264 cord_individual_obj[indivial_i, :] = [ 14. 11. 76. 87.]
265 cord_individual_obj[indivial_i, :] = [ 15. 11. 116. 127.]
266 cord_individual_obj[indivial_i, :] = [ 16. 10. 218. 228.]
267 cord_individual_obj[indivial_i, :] = [ 17. 10. 114. 124.]
268 cord_individual_obj[indivial_i, :] = [ 18. 10. 103. 113.]
269 cord_individual_obj[indivial_i, :] = [ 19. 11. 215. 226.]
270 cord_individual_obj[indivial_i, :] = [ 20. 11. 130. 141.]
271 cord_individual_obj[indivial_i, :] = [ 21. 9. 104. 113.]
272 cord_individual_obj[indivial_i, :] = [ 22. 9. 149. 158.]
273 cord_individual_obj[indivial_i, :] = [ 23. 12. 144. 156.]
274 cord_individual_obj[indivial_i, :] = [ 24. 9. 142. 151.]
275

276 min(cord_individual_obj[:, 3]) = 87.0
277 historl_G_best_iter[iter, 3] = 87.0
278 Begin iteration:
279
280 iter = 8
281 cord_individual_obj[indivial_i, :] = [ 0. 9. 117. 126.]
282 cord_individual_obj[indivial_i, :] = [ 1. 9. 92. 101.]
283 cord_individual_obj[indivial_i, :] = [ 2. 11. 76. 87.]
284 cord_individual_obj[indivial_i, :] = [ 3. 10. 125. 135.]
285 cord_individual_obj[indivial_i, :] = [ 4. 10. 157. 167.]
286 cord_individual_obj[indivial_i, :] = [ 5. 10. 143. 153.]
287 cord_individual_obj[indivial_i, :] = [ 6. 10. 158. 168.]
288 cord_individual_obj[indivial_i, :] = [ 7. 10. 179. 189.]
289 cord_individual_obj[indivial_i, :] = [ 8. 11. 145. 156.]
290 cord_individual_obj[indivial_i, :] = [ 9. 9. 110. 119.]
291 cord_individual_obj[indivial_i, :] = [ 10. 10. 185. 195.]
292 cord_individual_obj[indivial_i, :] = [ 11. 10. 167. 177.]
293 cord_individual_obj[indivial_i, :] = [ 12. 10. 206. 216.]
294 cord_individual_obj[indivial_i, :] = [ 13. 9. 166. 175.]
295 cord_individual_obj[indivial_i, :] = [ 14. 8. 193. 201.]
296 cord_individual_obj[indivial_i, :] = [ 15. 12. 154. 166.]
297 cord_individual_obj[indivial_i, :] = [ 16. 10. 146. 156.]
298 cord_individual_obj[indivial_i, :] = [ 17. 10. 103. 113.]
299 cord_individual_obj[indivial_i, :] = [ 18. 10. 162. 172.]
300 cord_individual_obj[indivial_i, :] = [ 19. 11. 168. 179.]
301 cord_individual_obj[indivial_i, :] = [ 20. 9. 208. 217.]
302 cord_individual_obj[indivial_i, :] = [ 21. 10. 148. 158.]
303 cord_individual_obj[indivial_i, :] = [ 22. 10. 159. 169.]
304 cord_individual_obj[indivial_i, :] = [ 23. 12. 102. 114.]
305 cord_individual_obj[indivial_i, :] = [ 24. 11. 132. 143.]
306

307 min(cord_individual_obj[:, 3]) = 87.0
308 historl_G_best_iter[iter, 3] = 87.0
309 Begin iteration:
310
311 iter = 9
312 cord_individual_obj[indivial_i, :] = [ 0. 11. 195. 206.]
313 cord_individual_obj[indivial_i, :] = [ 1. 12. 114. 126.]
314 cord_individual_obj[indivial_i, :] = [ 2. 9. 146. 155.]
315 cord_individual_obj[indivial_i, :] = [ 3. 10. 116. 126.]
316 cord_individual_obj[indivial_i, :] = [ 4. 12. 121. 133.]
317 cord_individual_obj[indivial_i, :] = [ 5. 9. 116. 125.]
318 cord_individual_obj[indivial_i, :] = [ 6. 10. 158. 168.]
319 cord_individual_obj[indivial_i, :] = [ 7. 10. 110. 120.]
320 cord_individual_obj[indivial_i, :] = [ 8. 11. 171. 182.]
321 cord_individual_obj[indivial_i, :] = [ 9. 10. 207. 217.]
322 cord_individual_obj[indivial_i, :] = [ 10. 10. 199. 209.]
323 cord_individual_obj[indivial_i, :] = [ 11. 11. 104. 115.]
324 cord_individual_obj[indivial_i, :] = [ 12. 9. 76. 85.]
325 cord_individual_obj[indivial_i, :] = [ 13. 10. 155. 165.]
326 cord_individual_obj[indivial_i, :] = [ 14. 12. 166. 178.]
327 cord_individual_obj[indivial_i, :] = [ 15. 10. 136. 146.]
328 cord_individual_obj[indivial_i, :] = [ 16. 10. 153. 163.]
329 cord_individual_obj[indivial_i, :] = [ 17. 10. 173. 183.]
330 cord_individual_obj[indivial_i, :] = [ 18. 9. 196. 205.]
331 cord_individual_obj[indivial_i, :] = [ 19. 9. 88. 97.]

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332 cord_individual_obj[indivial_i, :] = [20, 11, 76, 87.]
333 cord_individual_obj[indivial_i, :] = [21, 9, 105, 114.]
334 cord_individual_obj[indivial_i, :] = [22, 9, 105, 114.]
335 cord_individual_obj[indivial_i, :] = [23, 10, 173, 183.]
336 cord_individual_obj[indivial_i, :] = [24, 10, 177, 187.]
337
338 min(cord_individual_obj[:, 3]) = 85.0
339 histol_G_best_iter[iter, 3] = 85.0
340 Begin iteration:
341
342 iter = 10
343 cord_individual_obj[indivial_i, :] = [0, 10, 84, 94.]
344 cord_individual_obj[indivial_i, :] = [1, 11, 201, 212.]
345 cord_individual_obj[indivial_i, :] = [2, 10, 143, 153.]
346 cord_individual_obj[indivial_i, :] = [3, 12, 136, 148.]
347 cord_individual_obj[indivial_i, :] = [4, 11, 137, 148.]
348 cord_individual_obj[indivial_i, :] = [5, 8, 135, 143.]
349 cord_individual_obj[indivial_i, :] = [6, 11, 156, 167.]
350 cord_individual_obj[indivial_i, :] = [7, 11, 90, 101.]
351 cord_individual_obj[indivial_i, :] = [8, 10, 201, 211.]
352 cord_individual_obj[indivial_i, :] = [9, 9, 76, 85.]
353 cord_individual_obj[indivial_i, :] = [10, 11, 114, 125.]
354 cord_individual_obj[indivial_i, :] = [11, 11, 109, 120.]
355 cord_individual_obj[indivial_i, :] = [12, 10, 153, 163.]
356 cord_individual_obj[indivial_i, :] = [13, 9, 146, 155.]
357 cord_individual_obj[indivial_i, :] = [14, 9, 168, 177.]
358 cord_individual_obj[indivial_i, :] = [15, 10, 158, 168.]
359 cord_individual_obj[indivial_i, :] = [16, 10, 172, 182.]
360 cord_individual_obj[indivial_i, :] = [17, 10, 110, 120.]
361 cord_individual_obj[indivial_i, :] = [18, 9, 119, 128.]
362 cord_individual_obj[indivial_i, :] = [19, 11, 126, 137.]
363 cord_individual_obj[indivial_i, :] = [20, 12, 111, 123.]
364 cord_individual_obj[indivial_i, :] = [21, 7, 88, 95.]
365 cord_individual_obj[indivial_i, :] = [22, 9, 187, 196.]
366 cord_individual_obj[indivial_i, :] = [23, 12, 184, 196.]
367 cord_individual_obj[indivial_i, :] = [24, 9, 146, 155.]
368
369 min(cord_individual_obj[:, 3]) = 85.0
370 histol_G_best_iter[iter, 3] = 85.0
371 Begin iteration:
372
373 iter = 11
374 cord_individual_obj[indivial_i, :] = [0, 10, 157, 167.]
375 cord_individual_obj[indivial_i, :] = [1, 9, 76, 85.]
376 cord_individual_obj[indivial_i, :] = [2, 12, 126, 138.]
377 cord_individual_obj[indivial_i, :] = [3, 10, 148, 158.]
378 cord_individual_obj[indivial_i, :] = [4, 10, 112, 122.]
379 cord_individual_obj[indivial_i, :] = [5, 12, 169, 181.]
380 cord_individual_obj[indivial_i, :] = [6, 9, 221, 230.]
381 cord_individual_obj[indivial_i, :] = [7, 10, 113, 123.]
382 cord_individual_obj[indivial_i, :] = [8, 14, 162, 176.]
383 cord_individual_obj[indivial_i, :] = [9, 10, 92, 102.]
384 cord_individual_obj[indivial_i, :] = [10, 9, 141, 150.]
385 cord_individual_obj[indivial_i, :] = [11, 11, 129, 140.]
386 cord_individual_obj[indivial_i, :] = [12, 8, 147, 155.]
387 cord_individual_obj[indivial_i, :] = [13, 12, 143, 155.]
388 cord_individual_obj[indivial_i, :] = [14, 9, 106, 115.]
389 cord_individual_obj[indivial_i, :] = [15, 9, 89, 98.]
390 cord_individual_obj[indivial_i, :] = [16, 10, 125, 135.]
391 cord_individual_obj[indivial_i, :] = [17, 9, 123, 132.]
392 cord_individual_obj[indivial_i, :] = [18, 11, 130, 141.]
393 cord_individual_obj[indivial_i, :] = [19, 8, 102, 110.]
394 cord_individual_obj[indivial_i, :] = [20, 10, 117, 127.]
395 cord_individual_obj[indivial_i, :] = [21, 8, 158, 166.]
396 cord_individual_obj[indivial_i, :] = [22, 10, 161, 171.]
397 cord_individual_obj[indivial_i, :] = [23, 11, 128, 139.]
398 cord_individual_obj[indivial_i, :] = [24, 11, 191, 202.]
399
400 min(cord_individual_obj[:, 3]) = 85.0
401 histol_G_best_iter[iter, 3] = 85.0
402 Begin iteration:
403
404 iter = 12
405 cord_individual_obj[indivial_i, :] = [0, 10, 104, 114.]
406 cord_individual_obj[indivial_i, :] = [1, 11, 136, 147.]
407 cord_individual_obj[indivial_i, :] = [2, 12, 148, 160.]
408 cord_individual_obj[indivial_i, :] = [3, 9, 76, 85.]
409 cord_individual_obj[indivial_i, :] = [4, 9, 118, 127.]
410 cord_individual_obj[indivial_i, :] = [5, 11, 187, 198.]
411 cord_individual_obj[indivial_i, :] = [6, 9, 76, 85.]
412 cord_individual_obj[indivial_i, :] = [7, 12, 98, 110.]
413 cord_individual_obj[indivial_i, :] = [8, 9, 177, 186.]
414 cord_individual_obj[indivial_i, :] = [9, 10, 185, 195.]
415 cord_individual_obj[indivial_i, :] = [10, 11, 97, 108.]

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416 cord_individual_obj[indivial_i,:] = [ 11. 10. 143. 153.]
417 cord_individual_obj[indivial_i,:] = [ 12. 11. 103. 114.]
418 cord_individual_obj[indivial_i,:] = [ 13. 9. 124. 133.]
419 cord_individual_obj[indivial_i,:] = [ 14. 10. 143. 153.]
420 cord_individual_obj[indivial_i,:] = [ 15. 10. 161. 171.]
421 cord_individual_obj[indivial_i,:] = [ 16. 9. 231. 240.]
422 cord_individual_obj[indivial_i,:] = [ 17. 12. 136. 148.]
423 cord_individual_obj[indivial_i,:] = [ 18. 10. 127. 137.]
424 cord_individual_obj[indivial_i,:] = [ 19. 10. 78. 88.]
425 cord_individual_obj[indivial_i,:] = [ 20. 9. 162. 171.]
426 cord_individual_obj[indivial_i,:] = [ 21. 8. 139. 147.]
427 cord_individual_obj[indivial_i,:] = [ 22. 10. 128. 138.]
428 cord_individual_obj[indivial_i,:] = [ 23. 12. 202. 214.]
429 cord_individual_obj[indivial_i,:] = [ 24. 12. 114. 126.]
430
431 min(cord_individual_obj[:,3]) = 85.0
432 histol_G_best_iter[iter,3] = 85.0
433 Begin iteration:
434
435 iter = 13
436 cord_individual_obj[indivial_i,:] = [ 0. 9. 137. 146.]
437 cord_individual_obj[indivial_i,:] = [ 1. 11. 135. 146.]
438 cord_individual_obj[indivial_i,:] = [ 2. 11. 126. 137.]
439 cord_individual_obj[indivial_i,:] = [ 3. 9. 104. 113.]
440 cord_individual_obj[indivial_i,:] = [ 4. 10. 145. 155.]
441 cord_individual_obj[indivial_i,:] = [ 5. 14. 217. 231.]
442 cord_individual_obj[indivial_i,:] = [ 6. 10. 168. 178.]
443 cord_individual_obj[indivial_i,:] = [ 7. 10. 110. 120.]
444 cord_individual_obj[indivial_i,:] = [ 8. 10. 150. 160.]
445 cord_individual_obj[indivial_i,:] = [ 9. 11. 129. 140.]
446 cord_individual_obj[indivial_i,:] = [ 10. 10. 143. 153.]
447 cord_individual_obj[indivial_i,:] = [ 11. 12. 103. 115.]
448 cord_individual_obj[indivial_i,:] = [ 12. 12. 108. 120.]
449 cord_individual_obj[indivial_i,:] = [ 13. 9. 159. 168.]
450 cord_individual_obj[indivial_i,:] = [ 14. 11. 134. 145.]
451 cord_individual_obj[indivial_i,:] = [ 15. 9. 150. 159.]
452 cord_individual_obj[indivial_i,:] = [ 16. 9. 76. 85.]
453 cord_individual_obj[indivial_i,:] = [ 17. 11. 186. 197.]
454 cord_individual_obj[indivial_i,:] = [ 18. 11. 145. 156.]
455 cord_individual_obj[indivial_i,:] = [ 19. 10. 137. 147.]
456 cord_individual_obj[indivial_i,:] = [ 20. 10. 151. 161.]
457 cord_individual_obj[indivial_i,:] = [ 21. 9. 190. 199.]
458 cord_individual_obj[indivial_i,:] = [ 22. 11. 145. 156.]
459 cord_individual_obj[indivial_i,:] = [ 23. 11. 112. 123.]
460 cord_individual_obj[indivial_i,:] = [ 24. 12. 195. 207.]
461
462 min(cord_individual_obj[:,3]) = 85.0
463 histol_G_best_iter[iter,3] = 85.0
464 Begin iteration:
465
466 iter = 14
467 cord_individual_obj[indivial_i,:] = [ 0. 10. 91. 101.]
468 cord_individual_obj[indivial_i,:] = [ 1. 10. 94. 104.]
469 cord_individual_obj[indivial_i,:] = [ 2. 14. 128. 142.]
470 cord_individual_obj[indivial_i,:] = [ 3. 8. 167. 175.]
471 cord_individual_obj[indivial_i,:] = [ 4. 10. 152. 162.]
472 cord_individual_obj[indivial_i,:] = [ 5. 9. 76. 85.]
473 cord_individual_obj[indivial_i,:] = [ 6. 10. 125. 135.]
474 cord_individual_obj[indivial_i,:] = [ 7. 10. 112. 122.]
475 cord_individual_obj[indivial_i,:] = [ 8. 11. 124. 135.]
476 cord_individual_obj[indivial_i,:] = [ 9. 9. 169. 178.]
477 cord_individual_obj[indivial_i,:] = [ 10. 10. 102. 112.]
478 cord_individual_obj[indivial_i,:] = [ 11. 10. 146. 156.]
479 cord_individual_obj[indivial_i,:] = [ 12. 10. 140. 150.]
480 cord_individual_obj[indivial_i,:] = [ 13. 14. 138. 152.]
481 cord_individual_obj[indivial_i,:] = [ 14. 10. 177. 187.]
482 cord_individual_obj[indivial_i,:] = [ 15. 10. 167. 177.]
483 cord_individual_obj[indivial_i,:] = [ 16. 13. 114. 127.]
484 cord_individual_obj[indivial_i,:] = [ 17. 8. 218. 226.]
485 cord_individual_obj[indivial_i,:] = [ 18. 9. 139. 148.]
486 cord_individual_obj[indivial_i,:] = [ 19. 10. 121. 131.]
487 cord_individual_obj[indivial_i,:] = [ 20. 12. 130. 142.]
488 cord_individual_obj[indivial_i,:] = [ 21. 11. 160. 171.]
489 cord_individual_obj[indivial_i,:] = [ 22. 10. 140. 150.]
490 cord_individual_obj[indivial_i,:] = [ 23. 10. 131. 141.]
491 cord_individual_obj[indivial_i,:] = [ 24. 8. 130. 138.]
492
493 min(cord_individual_obj[:,3]) = 85.0
494 histol_G_best_iter[iter,3] = 85.0
495 Begin iteration:
496
497 iter = 15
498 cord_individual_obj[indivial_i,:] = [ 0. 10. 201. 211.]
499 cord_individual_obj[indivial_i,:] = [ 1. 13. 112. 125.]

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500 cord_individual_obj[indivial_i, :] = [ 2. 11. 179. 190.]
501 cord_individual_obj[indivial_i, :] = [ 3. 10. 167. 177.]
502 cord_individual_obj[indivial_i, :] = [ 4. 9. 124. 133.]
503 cord_individual_obj[indivial_i, :] = [ 5. 12. 173. 185.]
504 cord_individual_obj[indivial_i, :] = [ 6. 11. 151. 162.]
505 cord_individual_obj[indivial_i, :] = [ 7. 12. 158. 170.]
506 cord_individual_obj[indivial_i, :] = [ 8. 12. 132. 144.]
507 cord_individual_obj[indivial_i, :] = [ 9. 13. 115. 128.]
508 cord_individual_obj[indivial_i, :] = [ 10. 10. 133. 143.]
509 cord_individual_obj[indivial_i, :] = [ 11. 12. 198. 210.]
510 cord_individual_obj[indivial_i, :] = [ 12. 9. 128. 137.]
511 cord_individual_obj[indivial_i, :] = [ 13. 14. 170. 184.]
512 cord_individual_obj[indivial_i, :] = [ 14. 12. 148. 160.]
513 cord_individual_obj[indivial_i, :] = [ 15. 12. 203. 215.]
514 cord_individual_obj[indivial_i, :] = [ 16. 9. 190. 199.]
515 cord_individual_obj[indivial_i, :] = [ 17. 9. 76. 85.]
516 cord_individual_obj[indivial_i, :] = [ 18. 8. 157. 165.]
517 cord_individual_obj[indivial_i, :] = [ 19. 11. 126. 137.]
518 cord_individual_obj[indivial_i, :] = [ 20. 14. 152. 166.]
519 cord_individual_obj[indivial_i, :] = [ 21. 9. 128. 137.]
520 cord_individual_obj[indivial_i, :] = [ 22. 11. 154. 165.]
521 cord_individual_obj[indivial_i, :] = [ 23. 12. 156. 168.]
522 cord_individual_obj[indivial_i, :] = [ 24. 12. 152. 164.]
523
524 min(cord_individual_obj[:, 3]) = 85.0
525 histol_G_best_iter[iter, 3] = 85.0
526 Begin iteration:
527
528 iter = 16
529 cord_individual_obj[indivial_i, :] = [ 0. 10. 165. 175.]
530 cord_individual_obj[indivial_i, :] = [ 1. 11. 135. 146.]
531 cord_individual_obj[indivial_i, :] = [ 2. 12. 156. 168.]
532 cord_individual_obj[indivial_i, :] = [ 3. 10. 165. 175.]
533 cord_individual_obj[indivial_i, :] = [ 4. 10. 142. 152.]
534 cord_individual_obj[indivial_i, :] = [ 5. 8. 132. 140.]
535 cord_individual_obj[indivial_i, :] = [ 6. 11. 92. 103.]
536 cord_individual_obj[indivial_i, :] = [ 7. 8. 175. 183.]
537 cord_individual_obj[indivial_i, :] = [ 8. 10. 165. 175.]
538 cord_individual_obj[indivial_i, :] = [ 9. 10. 195. 205.]
539 cord_individual_obj[indivial_i, :] = [ 10. 10. 107. 117.]
540 cord_individual_obj[indivial_i, :] = [ 11. 12. 155. 167.]
541 cord_individual_obj[indivial_i, :] = [ 12. 11. 156. 167.]
542 cord_individual_obj[indivial_i, :] = [ 13. 10. 131. 141.]
543 cord_individual_obj[indivial_i, :] = [ 14. 10. 109. 119.]
544 cord_individual_obj[indivial_i, :] = [ 15. 9. 76. 85.]
545 cord_individual_obj[indivial_i, :] = [ 16. 11. 108. 119.]
546 cord_individual_obj[indivial_i, :] = [ 17. 9. 219. 228.]
547 cord_individual_obj[indivial_i, :] = [ 18. 10. 178. 188.]
548 cord_individual_obj[indivial_i, :] = [ 19. 12. 111. 123.]
549 cord_individual_obj[indivial_i, :] = [ 20. 11. 105. 116.]
550 cord_individual_obj[indivial_i, :] = [ 21. 10. 122. 132.]
551 cord_individual_obj[indivial_i, :] = [ 22. 11. 130. 141.]
552 cord_individual_obj[indivial_i, :] = [ 23. 10. 232. 242.]
553 cord_individual_obj[indivial_i, :] = [ 24. 12. 221. 233.]
554
555 min(cord_individual_obj[:, 3]) = 85.0
556 histol_G_best_iter[iter, 3] = 85.0
557 Begin iteration:
558
559 iter = 17
560 cord_individual_obj[indivial_i, :] = [ 0. 12. 138. 150.]
561 cord_individual_obj[indivial_i, :] = [ 1. 11. 126. 137.]
562 cord_individual_obj[indivial_i, :] = [ 2. 10. 101. 111.]
563 cord_individual_obj[indivial_i, :] = [ 3. 12. 137. 149.]
564 cord_individual_obj[indivial_i, :] = [ 4. 10. 136. 146.]
565 cord_individual_obj[indivial_i, :] = [ 5. 9. 140. 149.]
566 cord_individual_obj[indivial_i, :] = [ 6. 9. 123. 132.]
567 cord_individual_obj[indivial_i, :] = [ 7. 11. 185. 196.]
568 cord_individual_obj[indivial_i, :] = [ 8. 12. 106. 118.]
569 cord_individual_obj[indivial_i, :] = [ 9. 10. 126. 136.]
570 cord_individual_obj[indivial_i, :] = [ 10. 15. 148. 163.]
571 cord_individual_obj[indivial_i, :] = [ 11. 13. 148. 161.]
572 cord_individual_obj[indivial_i, :] = [ 12. 9. 169. 178.]
573 cord_individual_obj[indivial_i, :] = [ 13. 10. 107. 117.]
574 cord_individual_obj[indivial_i, :] = [ 14. 11. 149. 160.]
575 cord_individual_obj[indivial_i, :] = [ 15. 10. 125. 135.]
576 cord_individual_obj[indivial_i, :] = [ 16. 12. 173. 185.]
577 cord_individual_obj[indivial_i, :] = [ 17. 11. 156. 167.]
578 cord_individual_obj[indivial_i, :] = [ 18. 10. 187. 197.]
579 cord_individual_obj[indivial_i, :] = [ 19. 12. 218. 230.]
580 cord_individual_obj[indivial_i, :] = [ 20. 11. 164. 175.]
581 cord_individual_obj[indivial_i, :] = [ 21. 9. 128. 137.]
582 cord_individual_obj[indivial_i, :] = [ 22. 12. 178. 190.]
583 cord_individual_obj[indivial_i, :] = [ 23. 9. 76. 85.]

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584     cord_individual_obj[indivial_i, :] = [ 24. 12. 102. 114.]
585
586     min(cord_individual_obj[:, 3]) = 85.0
587     historl_G_best_iter[iter, 3] = 85.0
588 Begin iteration:
589
590 iter = 18
591     cord_individual_obj[indivial_i, :] = [ 0. 9. 145. 154.]
592     cord_individual_obj[indivial_i, :] = [ 1. 10. 175. 185.]
593     cord_individual_obj[indivial_i, :] = [ 2. 12. 100. 112.]
594     cord_individual_obj[indivial_i, :] = [ 3. 10. 75. 85.]
595     cord_individual_obj[indivial_i, :] = [ 4. 11. 168. 179.]
596     cord_individual_obj[indivial_i, :] = [ 5. 10. 143. 153.]
597     cord_individual_obj[indivial_i, :] = [ 6. 10. 103. 113.]
598     cord_individual_obj[indivial_i, :] = [ 7. 11. 172. 183.]
599     cord_individual_obj[indivial_i, :] = [ 8. 10. 127. 137.]
600     cord_individual_obj[indivial_i, :] = [ 9. 11. 156. 167.]
601     cord_individual_obj[indivial_i, :] = [ 10. 12. 162. 174.]
602     cord_individual_obj[indivial_i, :] = [ 11. 11. 154. 165.]
603     cord_individual_obj[indivial_i, :] = [ 12. 10. 195. 205.]
604     cord_individual_obj[indivial_i, :] = [ 13. 10. 98. 108.]
605     cord_individual_obj[indivial_i, :] = [ 14. 11. 141. 152.]
606     cord_individual_obj[indivial_i, :] = [ 15. 11. 115. 126.]
607     cord_individual_obj[indivial_i, :] = [ 16. 11. 118. 129.]
608     cord_individual_obj[indivial_i, :] = [ 17. 9. 164. 173.]
609     cord_individual_obj[indivial_i, :] = [ 18. 9. 156. 165.]
610     cord_individual_obj[indivial_i, :] = [ 19. 9. 76. 85.]
611     cord_individual_obj[indivial_i, :] = [ 20. 11. 146. 157.]
612     cord_individual_obj[indivial_i, :] = [ 21. 11. 125. 136.]
613     cord_individual_obj[indivial_i, :] = [ 22. 10. 102. 112.]
614     cord_individual_obj[indivial_i, :] = [ 23. 10. 168. 178.]
615     cord_individual_obj[indivial_i, :] = [ 24. 12. 141. 153.]
616
617     min(cord_individual_obj[:, 3]) = 85.0
618     historl_G_best_iter[iter, 3] = 85.0
619 Begin iteration:
620
621 iter = 19
622     cord_individual_obj[indivial_i, :] = [ 0. 10. 147. 157.]
623     cord_individual_obj[indivial_i, :] = [ 1. 10. 152. 162.]
624     cord_individual_obj[indivial_i, :] = [ 2. 8. 147. 155.]
625     cord_individual_obj[indivial_i, :] = [ 3. 9. 107. 116.]
626     cord_individual_obj[indivial_i, :] = [ 4. 10. 126. 136.]
627     cord_individual_obj[indivial_i, :] = [ 5. 8. 153. 161.]
628     cord_individual_obj[indivial_i, :] = [ 6. 10. 119. 129.]
629     cord_individual_obj[indivial_i, :] = [ 7. 9. 146. 155.]
630     cord_individual_obj[indivial_i, :] = [ 8. 10. 183. 193.]
631     cord_individual_obj[indivial_i, :] = [ 9. 10. 184. 194.]
632     cord_individual_obj[indivial_i, :] = [ 10. 9. 142. 151.]
633     cord_individual_obj[indivial_i, :] = [ 11. 8. 209. 217.]
634     cord_individual_obj[indivial_i, :] = [ 12. 10. 75. 85.]
635     cord_individual_obj[indivial_i, :] = [ 13. 9. 169. 178.]
636     cord_individual_obj[indivial_i, :] = [ 14. 9. 149. 158.]
637     cord_individual_obj[indivial_i, :] = [ 15. 11. 212. 223.]
638     cord_individual_obj[indivial_i, :] = [ 16. 10. 199. 209.]
639     cord_individual_obj[indivial_i, :] = [ 17. 10. 148. 158.]
640     cord_individual_obj[indivial_i, :] = [ 18. 9. 104. 113.]
641     cord_individual_obj[indivial_i, :] = [ 19. 11. 220. 231.]
642     cord_individual_obj[indivial_i, :] = [ 20. 10. 123. 133.]
643     cord_individual_obj[indivial_i, :] = [ 21. 10. 159. 169.]
644     cord_individual_obj[indivial_i, :] = [ 22. 8. 187. 195.]
645     cord_individual_obj[indivial_i, :] = [ 23. 11. 119. 130.]
646     cord_individual_obj[indivial_i, :] = [ 24. 10. 108. 118.]
647
648     min(cord_individual_obj[:, 3]) = 85.0
649     historl_G_best_iter[iter, 3] = 85.0
650 Begin iteration:
651
652 iter = 20
653     cord_individual_obj[indivial_i, :] = [ 0. 11. 108. 119.]
654     cord_individual_obj[indivial_i, :] = [ 1. 9. 143. 152.]
655     cord_individual_obj[indivial_i, :] = [ 2. 8. 183. 191.]
656     cord_individual_obj[indivial_i, :] = [ 3. 11. 125. 136.]
657     cord_individual_obj[indivial_i, :] = [ 4. 11. 185. 196.]
658     cord_individual_obj[indivial_i, :] = [ 5. 10. 162. 172.]
659     cord_individual_obj[indivial_i, :] = [ 6. 9. 106. 115.]
660     cord_individual_obj[indivial_i, :] = [ 7. 9. 120. 129.]
661     cord_individual_obj[indivial_i, :] = [ 8. 10. 79. 89.]
662     cord_individual_obj[indivial_i, :] = [ 9. 8. 179. 187.]
663     cord_individual_obj[indivial_i, :] = [ 10. 9. 200. 209.]
664     cord_individual_obj[indivial_i, :] = [ 11. 11. 111. 122.]
665     cord_individual_obj[indivial_i, :] = [ 12. 10. 138. 148.]
666     cord_individual_obj[indivial_i, :] = [ 13. 9. 178. 187.]
667     cord_individual_obj[indivial_i, :] = [ 14. 11. 153. 164.]

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668 cord_individual_obj[indivial_i,:] = [ 15. 9. 155. 164.]
669 cord_individual_obj[indivial_i,:] = [ 16. 8. 146. 154.]
670 cord_individual_obj[indivial_i,:] = [ 17. 10. 198. 208.]
671 cord_individual_obj[indivial_i,:] = [ 18. 9. 127. 136.]
672 cord_individual_obj[indivial_i,:] = [ 19. 10. 75. 85.]
673 cord_individual_obj[indivial_i,:] = [ 20. 11. 139. 150.]
674 cord_individual_obj[indivial_i,:] = [ 21. 10. 145. 155.]
675 cord_individual_obj[indivial_i,:] = [ 22. 11. 173. 184.]
676 cord_individual_obj[indivial_i,:] = [ 23. 11. 91. 102.]
677 cord_individual_obj[indivial_i,:] = [ 24. 10. 176. 186.]
678
679 min(cord_individual_obj[:, 3]) = 85.0
680 historl_G_best_iter[iter, 3] = 85.0
681 Iteration calculate over
682
683
684
685
686 All item are in Bin and:
687 Bin area = 1080
688 Real_area = 251.0
689 Proportion_of_area = 0.2324074074074074
690 BEST_CHROM =
691 berth: [ 9.5 17.5 21.5 17.5 22.5 1.5 3.5 23.5 11. 22.5 13.5 2.5 10. 14.
692 9.5 24. 6.5 9.5]
693 time: [0. 4. 4. 0. 4. 0. 2. 7. 1. 3. 8. 6. 0. 2. 7. 6. 1.]
694 num_QC: [5. 3. 2. 2. 5. 2. 2. 4. 4. 5. 3. 3. 4. 2. 2. 5. 2. 5.]
695 Objective function values and some other indicators:
696 Obj0 = 10.00      Obj1 = 75.00      Obj0 + Obj1 = 85.00
697 Total movement of crane: 20.00
698 Total waiting time in berth position: 55.00
699 Total index of q during berthing: 1259.00
700 Specific arrangement for each vessel:
701 V_id: 0          li: 5.0           xi: 9.5       bow of i: 7.0           tail of i: 12.0      gama_i0: 0.0        gama_i1: 0.0
702 .0              work load gap_i: 0   gama_i1 + 1: 1.0    gama_i1 - gama_i0: 0.0 duration_time_i: 1.0    demand_i: 100.0    work load_i:
703 V_id: 1          li: 5.0           xi: 17.5      bow of i: 15.0           tail of i: 20.0      gama_i0: 4.0        gama_i1: 6
704 .0              work load gap_i: 0   gama_i1 + 1: 7.0    gama_i1 - gama_i0: 2.0 duration_time_i: 3.0    demand_i: 140.0    work
705 V_id: 2          li: 3.0           xi: 21.5      bow of i: 20.0           tail of i: 23.0      gama_i0: 4.0        gama_i1: 6
706 .0              work load gap_i: 0   gama_i1 + 1: 7.0    gama_i1 - gama_i0: 2.0 duration_time_i: 3.0    demand_i: 100.0    work
707 V_id: 3          li: 3.0           xi: 17.5      bow of i: 16.0           tail of i: 19.0      gama_i0: 0.0        gama_i1: 1
708 .0              work load gap_i: 0   gama_i1 + 1: 2.0    gama_i1 - gama_i0: 1.0 duration_time_i: 2.0    demand_i: 80.0     work
709 V_id: 4          li: 7.0           xi: 22.5      bow of i: 19.0           tail of i: 26.0      gama_i0: 0.0        gama_i1: 0
710 .0              work load gap_i: 0   gama_i1 + 1: 1.0    gama_i1 - gama_i0: 0.0 duration_time_i: 1.0    demand_i: 100.0    work
711 V_id: 5          li: 3.0           xi: 1.5       bow of i: 0.0            tail of i: 3.0       gama_i0: 4.0        gama_i1: 7.0
712 .0              work load gap_i: 0   gama_i1 + 1: 8.0    gama_i1 - gama_i0: 3.0 duration_time_i: 4.0    demand_i: 140.0    work load_i:
713 V_id: 6          li: 7.0           xi: 3.5       bow of i: 0.0            tail of i: 7.0       gama_i0: 0.0        gama_i1: 3.0
714 .0              work load gap_i: 0   gama_i1 + 1: 4.0    gama_i1 - gama_i0: 3.0 duration_time_i: 4.0    demand_i: 140.0    work load_i:
715 V_id: 7          li: 9.0           xi: 23.5      bow of i: 19.0           tail of i: 28.0      gama_i0: 2.0        gama_i1: 3
716 .0              work load gap_i: 0   gama_i1 + 1: 4.0    gama_i1 - gama_i0: 1.0 duration_time_i: 2.0    demand_i: 160.0    work
717 V_id: 8          li: 6.0           xi: 11.0      bow of i: 8.0            tail of i: 14.0      gama_i0: 7.0        gama_i1: 8
718 .0              work load gap_i: 0   gama_i1 + 1: 9.0    gama_i1 - gama_i0: 1.0 duration_time_i: 2.0    demand_i: 160.0    work
719 V_id: 9          li: 7.0           xi: 22.5      bow of i: 19.0           tail of i: 26.0      gama_i0: 1.0        gama_i1: 1
720 .0              work load gap_i: 0   gama_i1 + 1: 2.0    gama_i1 - gama_i0: 0.0 duration_time_i: 1.0    demand_i: 80.0     work
721 V_id: 10         li: 3.0           xi: 13.5      bow of i: 12.0           tail of i: 15.0      gama_i0: 3.0        gama_i1: 1
722 .0              work load gap_i: 0   gama_i1 + 1: 6.0    gama_i1 - gama_i0: 2.0 duration_time_i: 3.0    demand_i: 140.0    work
723 V_id: 11         li: 5.0           xi: 2.5       bow of i: 0.0            tail of i: 5.0       gama_i0: 8.0        gama_i1: 10.
724 .0              work load gap_i: 0   gama_i1 + 1: 11.0   gama_i1 - gama_i0: 2.0 duration_time_i: 3.0    demand_i: 140.0    work
725 V_id: 12         li: 4.0           xi: 10.0      bow of i: 8.0            tail of i: 12.0      gama_i0: 6.0        gama_i1: 1
726 .0              work load gap_i: 0   gama_i1 + 1: 7.0    gama_i1 - gama_i0: 0.0 duration_time_i: 1.0    demand_i: 80.0     work
727 V_id: 13         li: 4.0           xi: 14.0      bow of i: 12.0           tail of i: 16.0      gama_i0: 0.0        gama_i1: 1
728 .0              work load gap_i: 0   gama_i1 + 1: 3.0    gama_i1 - gama_i0: 2.0 duration_time_i: 3.0    demand_i: 120.0    work
729 V_id: 14         li: 5.0           xi: 9.5       bow of i: 7.0            tail of i: 12.0      gama_i0: 2.0        gama_i1: 5
730 .0              work load gap_i: 0   gama_i1 + 1: 6.0    gama_i1 - gama_i0: 3.0 duration_time_i: 4.0    demand_i: 140.0    work
731 V_id: 15         li: 8.0           xi: 24.0      bow of i: 20.0           tail of i: 28.0      gama_i0: 7.0        gama_i1: 1
732 .0              work load gap_i: 0   gama_i1 + 1: 9.0    gama_i1 - gama_i0: 1.0 duration_time_i: 2.0    demand_i: 160.0    work
733 V_id: 16         li: 3.0           xi: 6.5       bow of i: 5.0            tail of i: 8.0       gama_i0: 6.0        gama_i1: 9.0
734 .0              work load gap_i: 0   gama_i1 + 1: 10.0   gama_i1 - gama_i0: 3.0 duration_time_i: 4.0    demand_i: 140.0    work

```

unknown

718 V_id: 17 li: 5.0 xi: 9.5 bow of i: 7.0 tail of i: 12.0 gama_i0: 1.0 gama_i1: 1
.0 gama_i1 + 1: 2.0 gama_i1 - gama_i0: 0.0 duration_time_i: 1.0 demand_i: 100.0 work
load_i: 100.0 work load gap_i: 0

719

720 Algorithm finished and the total CPU time: 452 s

721 End

722