```
1 /Library/Java/JavaVirtualMachines/adoptopenjdk-11.jdk/
   Contents/Home/bin/java "-javaagent:/Applications/IntelliJ
   IDEA CE.app/Contents/lib/idea_rt.jar=54909:/Applications/
   IntelliJ IDEA CE.app/Contents/bin" -Dfile.encoding=UTF-8 -
   classpath /Users/wangzhongxuan/IdeaProjects/UNO GAME8-java/
   out/production/UNO_GAME8-java Main
2 Here's the draw Pile after shuffled.
 3 Card Number: 9 Color: Yellow
4 Card Number: 3 Color: Red
5 Card Number: 4 Color: Red
6 Card Number: 6 Color: Red
7 Card Number: 1 Color: Red
8 Wild
9 Card Number: 8 Color: Yellow
10 Card Number: 5 Color: Yellow
11 Action: DRAWTWO Color: Blue
12 Card Number: 5 Color: Red
13 Action: SKIP Color: Blue
14 Card Number: 9 Color: Yellow
15 Card Number: 2 Color: Red
16 Card Number: 1 Color: Green
17 Action: REVERSE Color: Red
18 Card Number: 8 Color: Red
19 Card Number: 5 Color: Red
20 Card Number: 8 Color: Green
21 Card Number: 3 Color: Yellow
22 Card Number: 3 Color: Blue
23 Card Number: 0 Color: Green
24 Action: DRAWTWO Color: Yellow
25 Wild
26 Action: REVERSE Color: Yellow
27 Action: REVERSE Color: Blue
28 Card Number: 5 Color: Blue
29 Action: REVERSE Color: Green
30 Action: DRAWTWO Color: Red
31 Wild
32 Card Number: 1 Color: Yellow
33 Action: REVERSE Color: Yellow
34 Card Number: 3 Color: Blue
35 Card Number: 3 Color: Green
36 Card Number: 0 Color: Yellow
37 Card Number: 1 Color: Blue
38 Action: DRAWTWO Color: Blue
39 Card Number: 7 Color: Red
40 Action: DRAWTWO Color: Yellow
41 WildFour
42 Action: REVERSE Color: Blue
43 Card Number: 3 Color: Yellow
44 Card Number: 4 Color: Green
45 Card Number: 1 Color: Blue
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46 Card Number: 5 Color: Green
47 Card Number: 0 Color: Red
48 Card Number: 4 Color: Yellow
49 Card Number: 2 Color: Green
50 Card Number: 9 Color: Green
51 Card Number: 4 Color: Yellow
52 Action: REVERSE Color: Red
53 Card Number: 1 Color: Red
54 Card Number: 7 Color: Yellow
55 Card Number: 8 Color: Blue
56 Card Number: 5 Color: Yellow
57 Card Number: 8 Color: Red
58 Card Number: 7 Color: Green
59 Card Number: 4 Color: Red
60 Card Number: 2 Color: Yellow
61 Wild
62 Action: SKIP Color: Yellow
63 Card Number: 0 Color: Blue
64 Card Number: 2 Color: Green
65 Card Number: 6 Color: Green
66 Card Number: 7 Color: Red
67 Action: SKIP Color: Blue
68 Action: SKIP Color: Green
69 Card Number: 8 Color: Blue
70 Card Number: 3 Color: Green
71 Card Number: 4 Color: Green
72 Card Number: 1 Color: Green
73 Card Number: 6 Color: Blue
74 Card Number: 7 Color: Blue
75 Card Number: 6 Color: Yellow
76 Action: SKIP Color: Red
77 Action: DRAWTWO Color: Red
78 Card Number: 2 Color: Yellow
79 Card Number: 9 Color: Blue
80 Card Number: 6 Color: Green
81 Card Number: 8 Color: Green
82 Card Number: 7 Color: Yellow
83 Card Number: 7 Color: Blue
84 Card Number: 4 Color: Blue
85 Card Number: 3 Color: Red
86 Action: DRAWTWO Color: Green
87 Card Number: 5 Color: Green
88 Card Number: 6 Color: Blue
89 WildFour
90 Card Number: 6 Color: Red
91 Card Number: 7 Color: Green
92 Card Number: 4 Color: Blue
93 Card Number: 1 Color: Yellow
94 Action: DRAWTWO Color: Green
95 Action: SKIP Color: Yellow
```

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96 Action: REVERSE Color: Green
97 Action: SKIP Color: Green
98 Card Number: 2 Color: Red
99 Card Number: 6 Color: Yellow
100 Card Number: 2 Color: Blue
101 Card Number: 9 Color: Green
102 Card Number: 9 Color: Red
103 Card Number: 9 Color: Blue
104 WildFour
105 Card Number: 5 Color: Blue
106 Action: SKIP Color: Red
107 WildFour
108 Card Number: 8 Color: Yellow
109 Card Number: 2 Color: Blue
110 Card Number: 9 Color: Red
111 -----
112 It would be closed in 2s...
113 Welcome to UNO!
114 First thing first, how many players would you like to add?
115 2
116 Player 1 is ready to be set the name!
117 a
118 Player 2 is ready to be set the name!
119 b
120 Get u! Names will be assigned to those players! Cards will
     be dealt!
121 Game starts in 1s! The first player plays first!
122 1 - - - Card Number: 9 Color: Yellow
123 2 - - - Card Number: 3 Color: Red
124 3 - - - Card Number: 4 Color: Red
125 4 - - - Card Number: 6 Color: Red
126 5 - - - Card Number: 1 Color: Red
127 6 - - Wild
128 7 - - - Card Number: 8 Color: Yellow
129 0
130 Player a finished! He played Wild
131 1 - - - Card Number: 5 Color: Yellow
132 2 - - - Action: DRAWTWO Color: Blue
133 3 - - - Card Number: 5 Color: Red
134 4 - - - Action: SKIP Color: Blue
135 5 - - - Card Number: 9 Color: Yellow
136 6 - - - Card Number: 2 Color: Red
137 7 - - - Card Number: 1 Color: Green
138 0
139 Player b finished! He played Action: DRAWTWO Color: Blue
140 Player a is halted for this round!
141 1 - - - Card Number: 9 Color: Yellow
142 2 - - - Card Number: 3 Color: Red
143 3 - - - Card Number: 4 Color: Red
144 4 - - - Card Number: 6 Color: Red
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145 5 - - - Card Number: 1 Color: Red
146 6 - - - Card Number: 8 Color: Yellow
147 7 - - - Action: REVERSE Color: Red
148 8 - - - Card Number: 8 Color: Red
149 3
150 Player a finished! He played null
151 1 - - - Card Number: 5 Color: Yellow
152 2 - - - Card Number: 5 Color: Red
153 3 - - - Action: SKIP Color: Blue
154 4 - - - Card Number: 9 Color: Yellow
155 5 - - - Card Number: 2 Color: Red
156 6 - - - Card Number: 1 Color: Green
157 3
158 Player b finished! He played Action: SKIP Color: Blue
159 Player a is halted for this round!
160 1 - - - Card Number: 9 Color: Yellow
161 2 - - - Card Number: 3 Color: Red
162 3 - - - Card Number: 4 Color: Red
163 4 - - - Card Number: 6 Color: Red
164 5 - - - Card Number: 1 Color: Red
165 6 - - - Card Number: 8 Color: Yellow
166 7 - - - Action: REVERSE Color: Red
167 8 - - - Card Number: 8 Color: Red
168 9 - - - Card Number: 5 Color: Red
169 3
170 Player a finished! He played null
171 1 - - - Card Number: 5 Color: Yellow
172 2 - - - Card Number: 5 Color: Red
173 3 - - - Card Number: 9 Color: Yellow
174 4 - - - Card Number: 2 Color: Red
175 5 - - - Card Number: 1 Color: Green
176 3
177 Player b finished! He played null
178 1 - - - Card Number: 9 Color: Yellow
179 2 - - - Card Number: 3 Color: Red
180 3 - - - Card Number: 4 Color: Red
181 4 - - - Card Number: 6 Color: Red
182 5 - - - Card Number: 1 Color: Red
183 6 - - - Card Number: 8 Color: Yellow
184 7 - - - Action: REVERSE Color: Red
185 8 - - - Card Number: 8 Color: Red
186 9 - - - Card Number: 5 Color: Red
187 10 - - - Card Number: 8 Color: Green
188 3
189 Player a finished! He played null
190 1 - - - Card Number: 5 Color: Yellow
191 2 - - - Card Number: 5 Color: Red
192 3 - - - Card Number: 9 Color: Yellow
193 4 - - - Card Number: 2 Color: Red
194 5 - - - Card Number: 1 Color: Green
```

```
195 6 - - - Card Number: 3 Color: Yellow
196 3
197 Player b finished! He played null
198 1 - - - Card Number: 9 Color: Yellow
199 2 - - - Card Number: 3 Color: Red
200 3 - - - Card Number: 4 Color: Red
201 4 - - - Card Number: 6 Color: Red
202 5 - - - Card Number: 1 Color: Red
203 6 - - - Card Number: 8 Color: Yellow
204 7 - - - Action: REVERSE Color: Red
205 8 - - - Card Number: 8 Color: Red
206 9 - - - Card Number: 5 Color: Red
207 10 - - - Card Number: 8 Color: Green
208 11 - - - Card Number: 3 Color: Blue
209 3
210 Player a finished! He played Card Number: 3 Color: Blue
211 1 - - - Card Number: 5 Color: Yellow
212 2 - - - Card Number: 5 Color: Red
213 3 - - - Card Number: 9 Color: Yellow
214 4 - - - Card Number: 2 Color: Red
215 5 - - - Card Number: 1 Color: Green
216 6 - - - Card Number: 3 Color: Yellow
217 7 - - - Card Number: 0 Color: Green
218 3
219 Player b finished! He played Card Number: 3 Color: Yellow
220 1 - - - Card Number: 9 Color: Yellow
221 2 - - - Card Number: 3 Color: Red
222 3 - - - Card Number: 4 Color: Red
223 4 - - - Card Number: 6 Color: Red
224 5 - - - Card Number: 1 Color: Red
225 6 - - - Card Number: 8 Color: Yellow
226 7 - - - Action: REVERSE Color: Red
227 8 - - - Card Number: 8 Color: Red
228 9 - - - Card Number: 5 Color: Red
229 10 - - - Card Number: 8 Color: Green
230 4
231 Player a finished! He played Card Number: 9 Color: Yellow
232 1 - - - Card Number: 5 Color: Yellow
233 2 - - - Card Number: 5 Color: Red
234 3 - - - Card Number: 9 Color: Yellow
235 4 - - - Card Number: 2 Color: Red
236 5 - - - Card Number: 1 Color: Green
237 6 - - - Card Number: 0 Color: Green
238 4
239 Player b finished! He played Card Number: 9 Color: Yellow
240 1 - - - Card Number: 3 Color: Red
241 2 - - Card Number: 4 Color: Red
242 3 - - - Card Number: 6 Color: Red
243 4 - - - Card Number: 1 Color: Red
244 5 - - - Card Number: 8 Color: Yellow
```

```
245 6 - - - Action: REVERSE Color: Red
246 7 - - - Card Number: 8 Color: Red
247 8 - - - Card Number: 5 Color: Red
248 9 - - - Card Number: 8 Color: Green
249 4
250 Player a finished! He played Card Number: 8 Color: Yellow
251 1 - - - Card Number: 5 Color: Yellow
252 2 - - - Card Number: 5 Color: Red
253 3 - - - Card Number: 2 Color: Red
254 4 - - - Card Number: 1 Color: Green
255 5 - - - Card Number: 0 Color: Green
256 4
257 Player b finished! He played Card Number: 5 Color: Yellow
258 1 - - - Card Number: 3 Color: Red
259 2 - - - Card Number: 4 Color: Red
260 3 - - - Card Number: 6 Color: Red
261 4 - - - Card Number: 1 Color: Red
262 5 - - - Action: REVERSE Color: Red
263 6 - - - Card Number: 8 Color: Red
264 7 - - - Card Number: 5 Color: Red
265 8 - - - Card Number: 8 Color: Green
266 4
267 Player a finished! He played Card Number: 5 Color: Red
268 1 - - - Card Number: 5 Color: Red
269 2 - - - Card Number: 2 Color: Red
270 3 - - - Card Number: 1 Color: Green
271 4 - - - Card Number: 0 Color: Green
272 1
273 Player b finished! He played Card Number: 5 Color: Red
274 1 - - - Card Number: 3 Color: Red
275 2 - - - Card Number: 4 Color: Red
276 3 - - - Card Number: 6 Color: Red
277 4 - - - Card Number: 1 Color: Red
278 5 - - - Action: REVERSE Color: Red
279 6 - - - Card Number: 8 Color: Red
280 7 - - - Card Number: 8 Color: Green
281 1
282 Player a finished! He played Action: REVERSE Color: Red
283 Player b is halted for this round!
284 1 - - - Card Number: 2 Color: Red
285 2 - - - Card Number: 1 Color: Green
286 3 - - - Card Number: 0 Color: Green
287 1
288 Player b finished! He played Card Number: 2 Color: Red
289 1 - - - Card Number: 3 Color: Red
290 2 - - - Card Number: 4 Color: Red
291 3 - - - Card Number: 6 Color: Red
292 4 - - - Card Number: 1 Color: Red
293 5 - - - Card Number: 8 Color: Red
294 6 - - - Card Number: 8 Color: Green
```

```
295 1
296 Player a finished! He played Card Number: 8 Color: Red
297 1 - - - Card Number: 1 Color: Green
298 2 - - - Card Number: 0 Color: Green
299 1
300 Player b finished! He played null
301 1 - - - Card Number: 3 Color: Red
302 2 - - - Card Number: 4 Color: Red
303 3 - - - Card Number: 6 Color: Red
304 4 - - - Card Number: 1 Color: Red
305 5 - - - Card Number: 8 Color: Green
306 1
307 Player a finished! He played Card Number: 8 Color: Green
308 1 - - - Card Number: 1 Color: Green
309 2 - - - Card Number: 0 Color: Green
310 3 - - - Action: DRAWTWO Color: Yellow
311 2
312 Player b finished! He played Card Number: 1 Color: Green
313 1 - - - Card Number: 3 Color: Red
314 2 - - - Card Number: 4 Color: Red
315 3 - - - Card Number: 6 Color: Red
316 4 - - - Card Number: 1 Color: Red
317 2
318 Player a finished! He played Card Number: 1 Color: Red
319 1 - - - Card Number: 0 Color: Green
320 2 - - - Action: DRAWTWO Color: Yellow
321 1
322 Player b finished! He played null
323 1 - - - Card Number: 3 Color: Red
324 2 - - - Card Number: 4 Color: Red
325 3 - - - Card Number: 6 Color: Red
326 1
327 Player a finished! He played Card Number: 6 Color: Red
328 1 - - - Card Number: 0 Color: Green
329 2 - - - Action: DRAWTWO Color: Yellow
330 \ 3 - - - Wild
331 1
332 Player b shouted out: UNO!
333 Player b finished! He played Wild
334 1 - - - Card Number: 3 Color: Red
335 2 - - - Card Number: 4 Color: Red
336 0
337 Player a shouted out: UNO!
338 Player a finished! He played Card Number: 4 Color: Red
339 1 - - - Card Number: 0 Color: Green
340 2 - - - Action: DRAWTWO Color: Yellow
341 1
342 Player b finished! He played null
343 1 - - - Card Number: 3 Color: Red
344 1
```

```
345 Wow! Player a has been running out of cards! Other players
     card will be calculated to this lucky player!
346 Card Number: 4 Color: Red
347 Wild
348 Card Number: 6 Color: Red
349 Card Number: 1 Color: Red
350 Card Number: 1 Color: Green
351 Card Number: 8 Color: Green
352 Card Number: 8 Color: Red
353 Card Number: 2 Color: Red
354 Action: REVERSE Color: Red
355 Card Number: 5 Color: Red
356 Card Number: 5 Color: Red
357 Card Number: 5 Color: Yellow
358 Card Number: 8 Color: Yellow
359 Card Number: 9 Color: Yellow
360 Card Number: 9 Color: Yellow
361 Card Number: 3 Color: Yellow
362 Card Number: 3 Color: Blue
363 Action: SKIP Color: Blue
364 Action: DRAWTWO Color: Blue
365 Wild
366 Cards would be reassigned!
367 Card Number: 7 Color: Yellow
368 Card Number: 1 Color: Yellow
369 Wild
370 Action: REVERSE Color: Blue
371 Action: DRAWTWO Color: Green
372 Action: SKIP Color: Yellow
373 Card Number: 6 Color: Blue
374 Card Number: 4 Color: Yellow
375 Card Number: 5 Color: Red
376 Card Number: 8 Color: Green
377 Card Number: 9 Color: Green
378 Card Number: 2 Color: Yellow
379 Wild
380 WildFour
381 Action: SKIP Color: Blue
382 Card Number: 7 Color: Yellow
383 Card Number: 7 Color: Blue
384 Card Number: 4 Color: Blue
385 Card Number: 5 Color: Yellow
386 WildFour
387 Card Number: 5 Color: Blue
388 Card Number: 6 Color: Green
389 Card Number: 8 Color: Red
390 Card Number: 6 Color: Red
391 Card Number: 0 Color: Yellow
392 Card Number: 3 Color: Green
393 Card Number: 6 Color: Yellow
```

```
394 Card Number: 1 Color: Red
395 Card Number: 3 Color: Yellow
396 Card Number: 5 Color: Green
397 Card Number: 3 Color: Blue
398 Action: DRAWTWO Color: Blue
399 Card Number: 4 Color: Green
400 Card Number: 9 Color: Blue
401 Action: REVERSE Color: Green
402 Card Number: 8 Color: Green
403 Card Number: 0 Color: Green
404 Card Number: 9 Color: Yellow
405 Card Number: 9 Color: Red
406 Card Number: 2 Color: Green
407 Card Number: 6 Color: Green
408 Card Number: 2 Color: Yellow
409 Card Number: 5 Color: Green
410 Card Number: 3 Color: Red
411 Card Number: 0 Color: Blue
412 Card Number: 2 Color: Blue
413 Action: REVERSE Color: Blue
414 Action: SKIP Color: Yellow
415 Card Number: 7 Color: Green
416 Card Number: 1 Color: Red
417 Card Number: 3 Color: Blue
418 Action: SKIP Color: Green
419 Card Number: 3 Color: Yellow
420 Card Number: 1 Color: Yellow
421 Card Number: 0 Color: Red
422 Action: DRAWTWO Color: Red
423 Action: SKIP Color: Red
424 Card Number: 9 Color: Blue
425 Card Number: 6 Color: Blue
426 Action: REVERSE Color: Red
427 Card Number: 1 Color: Green
428 Action: REVERSE Color: Red
429 Action: DRAWTWO Color: Blue
430 Card Number: 1 Color: Green
431 Card Number: 5 Color: Blue
432 Card Number: 3 Color: Red
433 WildFour
434 Action: DRAWTWO Color: Yellow
435 Card Number: 2 Color: Red
436 Card Number: 2 Color: Red
437 Wild
438 Card Number: 6 Color: Red
439 Action: DRAWTWO Color: Yellow
440 Card Number: 9 Color: Yellow
441 Card Number: 5 Color: Red
442 Action: REVERSE Color: Yellow
443 Card Number: 6 Color: Yellow
```

```
444 Card Number: 4 Color: Green
445 Card Number: 4 Color: Red
446 Card Number: 9 Color: Green
447 Card Number: 7 Color: Green
448 Card Number: 1 Color: Blue
449 Card Number: 4 Color: Red
450 Action: DRAWTWO Color: Red
451 Card Number: 3 Color: Green
452 Card Number: 2 Color: Blue
453 Card Number: 7 Color: Red
454 Card Number: 7 Color: Red
455 Card Number: 9 Color: Red
456 Card Number: 8 Color: Red
457 Card Number: 8 Color: Blue
458 Card Number: 8 Color: Yellow
459 Card Number: 1 Color: Blue
460 Action: REVERSE Color: Yellow
461 Action: REVERSE Color: Green
462 Action: DRAWTWO Color: Green
463 Action: SKIP Color: Red
464 Card Number: 2 Color: Green
465 Card Number: 4 Color: Blue
466 Wild
467 Card Number: 7 Color: Blue
468 Card Number: 8 Color: Yellow
469 WildFour
470 Card Number: 4 Color: Yellow
471 Card Number: 5 Color: Yellow
472 Card Number: 8 Color: Blue
473 Action: SKIP Color: Green
474 Action: SKIP Color: Blue
475 -----
476 It would be closed in 2s...
477 Exception in thread "main" java.lang.
    IndexOutOfBoundsException: Index 0 out of bounds for
    length 0
478
        at java.base/jdk.internal.util.Preconditions.
    outOfBounds(Preconditions.java:64)
479
        at java.base/jdk.internal.util.Preconditions.
    outOfBoundsCheckIndex(Preconditions.java:70)
480
        at java.base/jdk.internal.util.Preconditions.
    checkIndex(Preconditions.java:248)
481
        at java.base/java.util.Objects.checkIndex(Objects.java
    :372)
482
        at java.base/java.util.ArrayList.get(ArrayList.java:
    458)
483
        at Dealer.play(Dealer.java:87)
484
        at Main.main(Main.java:52)
485
486 Process finished with exit code 1
```