```
Title: Choose gamemode
    Description: This use case describes how to select a game mode and start a game.
    System under design: Quarto app (Main Menu).
    Primary Actor: Quarto App user.
    Goal: Select a game mode and start the game.
    Precomdition: None.
7
    Following use cases: Choose Competitive Mode, Choose AI Mode, Choose Casual Mode
   Success Post-Condition: Gamemode that user selected starts.
8
9
10
   Actor:
                                             System Processes:

    User opens Quarto app.
    User selects Play button.

                                            2. System displays main menu screen.
11
                                            4. System displays Gamemode selection
12
13
                                                      menu that displays 3 options
14
                                                a) Competitive.
                                                b) Vs AI.
15
16
                                                c) Casual.
17
    5. User Selects Vs AI
                                             6. System registers the user hitting
18
                                                       "VS AI" and starts a game.
19
20
    7. User starts playing Quarto against AI.
21
22
23
   After system displays gamemode options starting at 5 and ending at 6:
24
    5.1. User selects "Competitive". 6.1. System starts Competitive game.
25
26
    5.2. User selects "Casual".
                                       6.2. System starts casual game.
27
    ______
    _____
28
29
   Title: Choose language
30
   Description: Use case describes steps required to change language
31
   System Under Design: Quarto App(Settings)
   Primary actor: User
33
   Goal: Change the language of the app.
34 Precondition: None
35
    Following use cases: None
36
    Success Post-Condition: Langauge is changed in the app.
37
38
    Actor:
                                                 System Processes:
39
    1. User opens quarto app.

    User opens quarto app.
    User selects "settings" option.
    User selects "Language & Region" option
    System displays main menu.
    System display settings page.
    System displays "Language"

                                                2. System displays main menu.
40
41
42
                                                     & Region" page.
    6. User selects "Choose Language" option. 7. System displays all available
43
44
                                                          languages for the app.
                                                9. System changes all language
45
    8. User selects "Spanish".
                                                         in the app to spanish.
46
47
    10. User can now use the app in spanish.
48
    ______
    _____
49
50 Title: Place piece
51
   Description: Use case describes how a user can place a piece.
52
    System Under design: Quarto app(in game)
   Primary Actor: User
54
   Goal: Place a piece in a valid spot.
55
    Pre-condition: Start a game of Quarto from mode selection menu.
56
    Following use cases: Claim Victory
57
    Success Post-Condition: User places valid quarto piece on board.
58
                                                  System
59
   Actor:
    Processes:
60
    1. User Selects piece from given options 2. System relays iformation to
61
                                                                       opponent
62
                                                   3. System shows new board after
63
                                                                  opponents move.
64
                                                   4. System displays what piece
65
                                                                 User must place.
    5. User places the preselected piece on board. 6. System updates board after
66
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67
                                                             user moves piece.
 68
                                               7. System asks user which piece his
 69
                                                            opponent must move.
 70
     8. User selects piece for opponent.
 71
 72
     Alternate Paths:
 73
     At step 6. The user could place a winning piece.
     5. User places pre selected piece. 6. System displays Victory screen
74
75
     7. User celebrates the win.
     ______
 76
77
78
    Title: Open Shop
79
     Description: Use case describes how a a user can use the shop.
    System Under Design: Quarto app(shop)
80
 81
    Primary Actor: User
    Goal: Have user enter shop.
 82
 83 Pre-Condition: None
 84 Following use cases: Account creation, Verify Age
85
    Success Post-Condition: User is able to access shop page.
86
87
                                               System Processes:
    Actor:
88 1. User opens Quarto app.
                                                2. System displays main menu.
     3. User selects shop option.
89
                                                4. User opens shop page.
 90
     5. User is able purchase items in shop.
 91
 92
 93
    Alternate Paths:
 94
    At step step 4. User may not have created account.
 9.5
    Actor:
                                               System Processes:
 96
                                               4. System asks user to sign in or
97
                                                             create an account.
98
     5. User selects create account
                                               6. System displays create account
99
100
     7. User enters information required by system. 8. System Asks for user to verify
101
102
     8. User vefiys age.
                                               9. System allows user to access shop.
103
     10. User is able to access shop.
104
     ______
105
106
     Title: Open leaderboard
107
     Description: Use case describes how user wil check competitive leaderboard
108
     System Under Design: Quarto app
109
    Primary Actor: User
110
    Goal: Check Competitive leaderboard
111
    Pre-Condition: None.
112
     Following cases: None
113
     Success Post-Condition: User is able to see their rating.
114
115
    Actor:
                                                    System Processes:
116
                                                    2. System displays profile page.
    1. User selects profile option in main menu.
117
                                                    4. System displays users stats
     3. User selects Stats option.
118
119
     5.User selects Competitive leaderboard option
                                                  6. System displays competitive
120
                                                      leaderboard, as well as users
121
                                                                           rank.
122
     7. User can now look at competitive leaderboard.
123
     ______
     _____
124
125
     Title: Offer piece
126
     Description: Use case describes how to offer a piece for the opponents turn.
127
     System Under Design: Quarto app(ingame)
128 Primary Actor: User
129 Goal: Offer piece to opponent
130 Pre-Condition: start a game of quarto.
```

Success Post-Condition: Opponent is given the piece they must place.

131

132

Following cases: none

```
133
134
     Actor:
                                                    System Processes:
                                                    2. System displays "Would you like
135
     1. User selects piece from side bar
                                                                 to offer this piece?"
136
137
     3. User selects yes on pop up window.
                                                    4. System relays what piece user has
138
                                                                 chosen to opponent.
139
     5. User sees opponent place piece selected by user.
     ______
140
     ______
141
142
    Title: Open Rule Book
    Description: Use case describes the steps required by user to open the rule book.
143
144 System Under Design: Quarto App (Main Menu)
    Primary Actor: User
145
146
    Goal: Open rule book
147
    Pre-Condition: none
     Following cases: Open tutorial
148
149
    Success Post-Condition: User is able to read complete rule book.
150
151
    Actor:
                                             System Processes:
152 1. User opens Quarto app.
                                             2. System displays main menu.
153

    User selects Tutorial button.

                                             4. System displays two options
154
                                              a)Open Rule Book
155
                                              b)Play through tutorial
     5. User selects "Open Rule Book"
156
                                            6.System Displays rule book to user.
157
     7. User now has access to Quarto Rules.
158
     ______
     _____
159
160
    Title: Play through tutorial
Description: Use case describes how a user can play through the tutorial.
162 System Under Design: Quarto App (Main Menu)
163 Primary Actor: User
164 Goal: Play the tutorial
165 Pre-Condition: none.
166
     Following cases: Open Tutorial
167
     Success Post-Condition: User is able to play the tutorial.
168
169
    Actor:
                                                System Processes:
170
     1. User opens quarto app.
                                                2. System displays main menu
171
     3. User selects tutorial option
                                                4. System Displays tutorial page
172
                                                               with two options
173
                                                   a) Open Rule Book
174
                                                   b) Play through tutorial
175
     5. User selects "Play Through tutorial"
                                                6. System Starts tutorial game.
176
177
     Alternate paths:
178
     At step 2 if the user is a new user.
179
180
                                                System Processes:
     Actor:
181
                                                 2. System recognizes new player
182
                                                   and displays "Would you like to
183
                                                              play the tutorial"
184
                                                4. System starts tutorial game.
     3. User selects yes
186
187
     Title: Rotate Board
188
     Description: Use case describes how user can rotate board.
189
     System Under Design: Quarto app(Standard game procedure)
190 Primary Actor: User
191
    Goal: Rotate game board
192 Pre-Condition: Quarto game has started.
193 Following cases: none
194
    Success Post-Condition: user is able to rotate board.
195
196
                                             System Processes:
     Actor:
197
     1. User taps right side rotate button
                                             2. System rotates board 90 degrees
198
                                                                  to the right
```

```
4. System rotates board 90 degrees
199
     3. User taps left side roatate button
200
                                                       to the left
                                            6. System rotates board 90 degrees to
201
     5. User taps left side rotate button
202
                                                                     the left
203
     7. User now has the board orientated the way they want.
204
     ______
205
206
    Title: Open Ghost Mode
207
    Description: use case describes how to open ghost mode
208 System Under Design: Quarto App(Standard game procedure)
209 Primary Actor: User
210 Goal: Activate ghost mode
211
     Pre-Condition: none
212
    Following cases: none
213
     Success Post-Condition: User successfully has game in ghost mode (lower opacity
214
215
216
     Actor:
                                           System Processes:
     1. User opens quarto app
217
                                           2. System displays main menu.
     3. User selects settings button
4. System displays settings menu
5. User selects Came board tab
218
219
     5.User selects Game board tab
                                           6. System displays gameboard settings
220
221
     7. User selects "ghost mode on" button.
222
     ______
     ______
223
224
     Title: Choose Item skin
225
     Description: Use case describes how user can select an item skin.
226
    System Under Design: Quarto app(Account/Shop Menu)
227
    Primary Actor: User
228
    Goal: Change skin of board pieces
229
    Pre-condition: user has already created an account
230
    Following cases: none
231
     Success Post-condition: Skins of board pieces changed.
232
233
     Actor:
                                               System Processes:
234
     1. User opens quarto app
                                               2. System displays main menu
235
     3. User selects shop option
                                               4. System displays shop menu
     5. User selects "purchased skins"
236
                                              6. System displays all user
                                                              purchased skins.
237
     7. User selects new skin to be used in game 8. System asks if the user wants
238
239
                                                             to equip the skin
240
     9. User selects "yes".
241
242
243
      Title: Choose Competitive Mode
244
      Description: Use case describes how to start a competitive game.
245
      System Under Design: Quarto App(Online Game)
246
     Primary Actor: User
247
     Goal: Start a competitive game
248
      Pre-Condition: Have created an account.
249
      Following cases: Choose Gamemode, Create Account, Match Score with Opponent,
250
                                                                    Update Score
251
      Success Post-Condition: User starts a game of competitive quarto
252
253
      Actor:
                                              System Processes:
      1. User opens quarto app
254
                                              2. System displays main menu
255
      3. User selects "Play Game"
                                              4. System displays gamemode
256
                                                                selection screen
      5. User selects competitive option 6. System searchs for opponent
257
258
                                                               and starts game
259
      7. User plays competitive game of quarto
260
261
      Alternate Paths:
262
      At step 6 the user could have not had an account
263
264
      Actor:
                                             System Processes:
```

265 6. System prompts user to create 266 an account 267 8. System then allows user to find 7. User creates account 268 opponent and starts game 269 9. User plays competitive game of quarto 270 ______ 2.71 272 Title: Create Account 273 Description: Use case describes how to create an account System Under design: Quarto App (Account) 274 275 Primary actor: User Goal: Create an account for user 2.76 277 Pre-Conidtion: none 278 Following cases: Verify Age 279 Success Post-Conditions: Account created for user 280 281 Actor: System Processes: 282 1. User opens quarto app 2. System displays 283 main menu screen 284 3. User selects settings option 4. System displays 285 settings page 286 5. User selects account option 6. System asks user 287 to enter information 288 7. User enters required information and selects "submit" 8. System asks user to 289 verify age 290 9. User verifys age 10. System accepts 291 verification and 292 creates account for user 293 11. User is now logged in to their account ______ 294 _____ 295 296 Title: Choose AI mode 297 Description: Use case describes how to select AI mode 298 System Under Design: Quarto app (Online Game) Primary actor: User 299 300 Goal: Start AI game 301 Pre-Condition: none 302 Following cases: Choose gamemode 303 Success Post-Conditon: User starts game of quarto against AI 304 305 System Process 306 1. User opens quarto app 2. System Displays main menu 307 2. User selects "Play Game" 3. System displays gamemode 308 selection screen 309 4. User Selects AI mode option 5. System asks user to select 310 difficulty level 7. System starts AI game 311 6. User selects difficulty level from given options 312 8. User plays game of quarto against AI 313 314 315 Title: Choose Casual mode Description: Use case describes how to select Casual mode 316 317 System Under Design: Quarto App (Online Game) 318 Primary actor: User 319 Goal: Start Casual Game 320 Pre-Condition: none 321 Following cases: Choose gamemode 322 Success Post-Condition: User starts casual game of quarto 323 324 System Processes: Actor: 325 2. System Displays main menu 1. User opens quarto app 326 2. User selects "Play Game" 3. System displays gamemode 327 selection screen 4. User selects "Casual" 328 5. System starts a casual game 329 6. User plays casual game of quarto 330