Sample output for Test Cases

Stats 102A Homework 4

The results here are for your information only. They do not provide guidance on how to approach the problem.

Your output for the test cases should match the output here almost exactly.

Test Case 1

```
dice <- PresetDice$new(
  rolls = c(3,4),
  verbose = TRUE
)
set.seed(16)
player1 <- Player$new(verbose = TRUE, pos = 24)
monopoly <- SpaceTracker$new(verbose = TRUE)

for(i in 1:1){
  cat("--- Turn", i,"---\n")
  take_turn(player1, monopoly)
  cat("\n")
}
```



```
## --- Turn 1 ---
## Dice Rolled: 3 4
## Player starts at 24: Indiana Avenue.
## Player moves forward 7.
## Player is now at 31: Go to jail.
## Player goes to jail.
## Added tally to 11: Jail.
```

```
print(setNames(monopoly$counts, 1:40))
```

```
##  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
##  0  0  0  0  0  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
## 27 28 29 30 31 32 33 34 35 36 37 38 39 40
##  0  0  0  0  0  0  0  0  0  0  0  0  0  0
```

Test Case 2

```
dice <- PresetDice$new(
  rolls = c(3,4, 4,3, 1,1, 3,4, 5,3),
  verbose = TRUE
)
set.seed(135)
chance <- CardDeck$new(chancedeck, verbose = TRUE)
community <- CardDeck$new(communitydeck, verbose = TRUE)
player1 <- Player$new(verbose = TRUE)
monopoly <- SpaceTracker$new(verbose = TRUE)

for(i in 1:4){
  cat("--- Turn", i,"---\n")
  take_turn(player1, monopoly)
  cat("\n")
}
```

INFORMATION ONLY

```
## --- Turn 1 ---
## Dice Rolled: 3 4
## Player starts at 1: Go.
## Player moves forward 7.
## Player is now at 8: Chance.
## Added tally to 8: Chance.
## Draw a Chance card.
## Card: Advance to Go
## Player moves to 1: Go.
## Added tally to 1: Go.
##
## --- Turn 2 ---
## Dice Rolled: 4 3
## Player starts at 1: Go.
## Player moves forward 7.
## Player is now at 8: Chance.
## Added tally to 8: Chance.
## Draw a Chance card.
## Card: Take a ride on the Reading Railroad
## Player moves to 6: Reading Railroad.
## Added tally to 6: Reading Railroad.
##
## --- Turn 3 ---
## Dice Rolled: 1 1
## Doubles count is now 1.
## Player starts at 6: Reading Railroad.
## Player moves forward 2.
## Player is now at 8: Chance.
## Added tally to 8: Chance.
## Draw a Chance card.
## Card: Advance token to the nearest Railroad
## Player moves to 16: Pennsylvania Railroad.
## Added tally to 16: Pennsylvania Railroad.
##
```

```
## Player rolled doubles, so they take another turn.
## Dice Rolled: 3 4
## Player starts at 16: Pennsylvania Railroad.
## Player moves forward 7.
## Player is now at 23: Chance.
## Added tally to 23: Chance.
## Draw a Chance card.
## Card: Advance token to nearest Utility
## Player moves to 29: Water Works.
## Added tally to 29: Water Works.
##
## --- Turn 4 ---
## Dice Rolled: 5 3
## Player starts at 29: Water Works.
## Player moves forward 8.
## Player is now at 37: Chance.
## Added tally to 37: Chance.
## Draw a Chance card.
## Card: Bank pays you dividend of $50
```

```
print(setNames(monopoly$counts, 1:40))
```

```
##  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
##  1  0  0  0  0  1  0  3  0  0  0  0  0  0  0  1  0  0  0  0  0  0  1  0  0  0
## 27 28 29 30 31 32 33 34 35 36 37 38 39 40
##  0  0  1  0  0  0  0  0  0  0  1  0  0  0
```

Test Case 3

```
dice <- PresetDice$new(
  rolls = c(3,3, 2,2, 2,1, 3,1), verbose = TRUE)

player1 <- Player$new(verbose = TRUE)
monopoly <- SpaceTracker$new(verbose = TRUE)
for(i in 1:2){
  cat("--- Turn", i,"---\n")
  take_turn(player1, monopoly)
  cat("\n")
}
```

INFORMATION ONLY

```
## --- Turn 1 ---
## Dice Rolled: 3 3
## Doubles count is now 1.
## Player starts at 1: Go.
## Player moves forward 6.
## Player is now at 7: Oriental Avenue.
## Added tally to 7: Oriental Avenue.
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 2 2
## Doubles count is now 2.
## Player starts at 7: Oriental Avenue.
## Player moves forward 4.
## Player is now at 11: Jail.
## Added tally to 11: Jail.
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 2 1
## Player starts at 11: Jail.
## Player moves forward 3.
## Player is now at 14: States Avenue.
## Added tally to 14: States Avenue.
##
## --- Turn 2 ---
## Dice Rolled: 3 1
## Player starts at 14: States Avenue.
## Player moves forward 4.
## Player is now at 18: Community Chest.
## Added tally to 18: Community Chest.
## Draw a Community Chest card.
## Card: Life insurance matures. Collect $100
```

```
print(setNames(monopoly$counts, 1:40))
```

```
##  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
##  0  0  0  0  0  0  1  0  0  0  1  0  0  1  0  0  0  1  0  0  0  0  0  0  0  0
## 27 28 29 30 31 32 33 34 35 36 37 38 39 40
##  0  0  0  0  0  0  0  0  0  0  0  0  0  0
```

Test Case 4

```
dice <- PresetDice$new(
  rolls = c(3,3, 3,3, 3,3, 5,6, 5,6, 5,6),
  verbose = TRUE
)

player1 <- Player$new(verbose = TRUE)
monopoly <- SpaceTracker$new(verbose = TRUE)

for(i in 1:4){
  cat("--- Turn", i,"---\n")
  take_turn(player1, monopoly)
  cat("\n")
}
```

INFORMATION ONLY

```
## --- Turn 1 ---
## Dice Rolled: 3 3
## Doubles count is now 1.
## Player starts at 1: Go.
## Player moves forward 6.
## Player is now at 7: Oriental Avenue.
## Added tally to 7: Oriental Avenue.
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 3 3
## Doubles count is now 2.
## Player starts at 7: Oriental Avenue.
## Player moves forward 6.
## Player is now at 13: Electric Company.
## Added tally to 13: Electric Company.
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 3 3
## Doubles count is now 3.
## Player goes to jail.
## Added tally to 11: Jail.
##
## --- Turn 2 ---
## Dice Rolled: 5 6
## Player stays in jail.
## Added tally to 11: Jail.
##
## --- Turn 3 ---
## Dice Rolled: 5 6
## Player stays in jail.
## Added tally to 11: Jail.
##
## --- Turn 4 ---
## Dice Rolled: 5 6
## Player's third turn in jail. Player must exit jail.
## Player exits jail.
## Player starts at 11: Jail.
```

```
## Player moves forward 11.
## Player is now at 22: Kentucky Avenue.
## Added tally to 22: Kentucky Avenue.
```

```
print(setNames(monopoly$counts, 1:40))
```

```
##  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
##  0  0  0  0  0  0  1  0  0  0  3  0  1  0  0  0  0  0  0  0  0  1  0  0  0  0
## 27 28 29 30 31 32 33 34 35 36 37 38 39 40
##  0  0  0  0  0  0  0  0  0  0  0  0  0  0
```

Test Case 5

```
dice <- PresetDice$new(
  rolls = c(3,3, 1,2, 3,3, 3,4),
  verbose = TRUE
)

player1 <- Player$new(verbose = TRUE, pos = 25)
monopoly <- SpaceTracker$new(verbose = TRUE)

for(i in 1:3){
  cat("--- Turn", i,"---\n")
  take_turn(player1, monopoly)
  cat("\n")
}
```

INFORMATION ONLY

```
## --- Turn 1 ---
## Dice Rolled: 3 3
## Doubles count is now 1.
## Player starts at 25: Illinois Avenue.
## Player moves forward 6.
## Player is now at 31: Go to jail.
## Player goes to jail.
## Added tally to 11: Jail.
##
## --- Turn 2 ---
## Dice Rolled: 1 2
## Player stays in jail.
## Added tally to 11: Jail.
##
## --- Turn 3 ---
## Dice Rolled: 3 3
## In jail but rolled doubles.
## Player exits jail.
## Player starts at 11: Jail.
## Player moves forward 6.
## Player is now at 17: St. James Place.
## Added tally to 17: St. James Place.
```

```
print(setNames(monopoly$counts, 1:40))
```

```
##  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
##  0  0  0  0  0  0  0  0  0  0  2  0  0  0  0  0  1  0  0  0  0  0  0  0  0  0
## 27 28 29 30 31 32 33 34 35 36 37 38 39 40
##  0  0  0  0  0  0  0  0  0  0  0  0  0  0
```

Test Case 6

```
## You must use these dice for Part 1
dice <- PresetDice$new(
  rolls = c(6,4, 5,3, 3,5, 4,4, 4,4, 2,2, 4,3, 4,4, 1,4,
            3,4, 1,2, 3,6, 5,4, 5,5, 1,2, 5,4, 3,3, 6,1,
            1,1, 2,3, 5,5, 5,4, 4,1, 2,2, 2,4),
  verbose = TRUE
)
set.seed(2)
chance <- CardDeck$new(chancedeck, verbose = TRUE)
community <- CardDeck$new(communitydeck, verbose = TRUE)
# if your chance cards different from mine,
# check to make sure sample(15) returns the following
# > set.seed(2)
# > sample(15)
#  [1]  5  6 14  8  1 11  9  2  3 10  7 12  4 13 15
```

```
player1 <- Player$new(verbose = TRUE)
monopoly <- SpaceTracker$new(verbose = TRUE)

for(i in 1:20){
  cat("--- Turn", i,"---\n")
  take_turn(player1, monopoly)
  cat("\n")
}
```

INFORMATION ONLY

```
## --- Turn 1 ---
## Dice Rolled: 6 4
## Player starts at 1: Go.
## Player moves forward 10.
## Player is now at 11: Jail.
## Added tally to 11: Jail.
##
## --- Turn 2 ---
## Dice Rolled: 5 3
## Player starts at 11: Jail.
## Player moves forward 8.
## Player is now at 19: Tennessee Avenue.
## Added tally to 19: Tennessee Avenue.
##
## --- Turn 3 ---
## Dice Rolled: 3 5
## Player starts at 19: Tennessee Avenue.
## Player moves forward 8.
## Player is now at 27: Atlantic Avenue.
## Added tally to 27: Atlantic Avenue.
##
## --- Turn 4 ---
## Dice Rolled: 4 4
## Doubles count is now 1.
## Player starts at 27: Atlantic Avenue.
```

```
## Player moves forward 8.
## Player is now at 35: Pennsylvania Avenue.
## Added tally to 35: Pennsylvania Avenue.
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 4 4
## Doubles count is now 2.
## Player starts at 35: Pennsylvania Avenue.
## Player moves forward 8.
## Player is now at 3: Community Chest.
## Added tally to 3: Community Chest.
## Draw a Community Chest card.
## Card: You have won second prize in a beauty contest
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 2 2
## Doubles count is now 3.
## Player goes to jail.
## Added tally to 11: Jail.
##
## --- Turn 5 ---
## Dice Rolled: 4 3
## Player stays in jail.
## Added tally to 11: Jail.
##
## --- Turn 6 ---
## Dice Rolled: 4 4
## In jail but rolled doubles.
## Player exits jail.
## Player starts at 11: Jail.
## Player moves forward 8.
## Player is now at 19: Tennessee Avenue.
## Added tally to 19: Tennessee Avenue.
##
## --- Turn 7 ---
## Dice Rolled: 1 4
## Player starts at 19: Tennessee Avenue.
## Player moves forward 5.
## Player is now at 24: Indiana Avenue.
## Added tally to 24: Indiana Avenue.
##
## --- Turn 8 ---
## Dice Rolled: 3 4
## Player starts at 24: Indiana Avenue.
## Player moves forward 7.
## Player is now at 31: Go to jail.
## Player goes to jail.
## Added tally to 11: Jail.
##
## --- Turn 9 ---
## Dice Rolled: 1 2
## Player stays in jail.
## Added tally to 11: Jail.
##
```

```
## --- Turn 10 ---
## Dice Rolled: 3 6
## Player stays in jail.
## Added tally to 11: Jail.
##
## --- Turn 11 ---
## Dice Rolled: 5 4
## Player's third turn in jail. Player must exit jail.
## Player exits jail.
## Player starts at 11: Jail.
## Player moves forward 9.
## Player is now at 20: New York Avenue.
## Added tally to 20: New York Avenue.
##
## --- Turn 12 ---
## Dice Rolled: 5 5
## Doubles count is now 1.
## Player starts at 20: New York Avenue.
## Player moves forward 10.
## Player is now at 30: Marvin Gardens.
## Added tally to 30: Marvin Gardens.
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 1 2
## Player starts at 30: Marvin Gardens.
## Player moves forward 3.
## Player is now at 33: North Carolina Avenue.
## Added tally to 33: North Carolina Avenue.
##
## --- Turn 13 ---
## Dice Rolled: 5 4
## Player starts at 33: North Carolina Avenue.
## Player moves forward 9.
## Player is now at 2: Mediterranean Avenue.
## Added tally to 2: Mediterranean Avenue.
##
## --- Turn 14 ---
## Dice Rolled: 3 3
## Doubles count is now 1.
## Player starts at 2: Mediterranean Avenue.
## Player moves forward 6.
## Player is now at 8: Chance.
## Added tally to 8: Chance.
## Draw a Chance card.
## Card: Advance token to the nearest Railroad
## Player moves to 16: Pennsylvania Railroad.
## Added tally to 16: Pennsylvania Railroad.
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 6 1
## Player starts at 16: Pennsylvania Railroad.
## Player moves forward 7.
## Player is now at 23: Chance.
## Added tally to 23: Chance.
```

```
## Draw a Chance card.
## Card: Take a ride on the Reading Railroad
## Player moves to 6: Reading Railroad.
## Added tally to 6: Reading Railroad.
##
## --- Turn 15 ---
## Dice Rolled: 1 1
## Doubles count is now 1.
## Player starts at 6: Reading Railroad.
## Player moves forward 2.
## Player is now at 8: Chance.
## Added tally to 8: Chance.
## Draw a Chance card.
## Card: You have been elected Chairman of the Board
##
## Player rolled doubles, so they take another turn.
## Dice Rolled: 2 3
## Player starts at 8: Chance.
## Player moves forward 5.
## Player is now at 13: Electric Company.
## Added tally to 13: Electric Company.
##
## --- Turn 16 ---
## Dice Rolled: 5 5
## Doubles count is now 1.
## Player starts at 13: Electric Company.
## Player moves forward 10.
## Player is now at 23: Chance.
## Added tally to 23: Chance.
## Draw a Chance card.
## Card: Go to Jail
## Player goes to jail.
## Added tally to 11: Jail.
##
## --- Turn 17 ---
## Dice Rolled: 5 4
## Player stays in jail.
## Added tally to 11: Jail.
##
## --- Turn 18 ---
## Dice Rolled: 4 1
## Player stays in jail.
## Added tally to 11: Jail.
##
## --- Turn 19 ---
## Dice Rolled: 2 2
## In jail but rolled doubles.
## Player exits jail.
## Player starts at 11: Jail.
## Player moves forward 4.
## Player is now at 15: Virginia Avenue.
## Added tally to 15: Virginia Avenue.
##
## --- Turn 20 ---
```

```
## Dice Rolled: 2 4
## Player starts at 15: Virginia Avenue.
## Player moves forward 6.
## Player is now at 21: Free Parking.
## Added tally to 21: Free Parking.
```

```
monopoly$counts
```

```
##  [1] 0 1 1 0 0 1 0 2 0 0 9 0 1 0 1 1 0 0 2 1 1 0 2 1 0 0 1 0 0 1 0 0 1 0 1 0 0 0
## [39] 0 0
```

```
cbind(gameboard, counts = monopoly$counts)
```

```
##    space                 title counts
## 1      1                    Go      0
## 2      2  Mediterranean Avenue      1
## 3      3       Community Chest      1
## 4      4         Baltic Avenue      0
## 5      5            Income Tax      0
## 6      6      Reading Railroad      1
## 7      7       Oriental Avenue      0
## 8      8               Chance      2
## 9      9        Vermont Avenue      0
## 10    10    Connecticut Avenue      0
## 11    11                  Jail      9
## 12    12     St. Charles Place      0
## 13    13      Electric Company      1
## 14    14         States Avenue      0
## 15    15       Virginia Avenue      1
## 16    16 Pennsylvania Railroad      1
## 17    17       St. James Place      0
## 18    18       Community Chest      0
## 19    19      Tennessee Avenue      2
## 20    20       New York Avenue      1
## 21    21          Free Parking      1
## 22    22       Kentucky Avenue      0
## 23    23               Chance      2
## 24    24        Indiana Avenue      1
## 25    25       Illinois Avenue      0
## 26    26        B & O Railroad      0
## 27    27       Atlantic Avenue      1
## 28    28        Ventnor Avenue      0
## 29    29           Water Works      0
## 30    30        Marvin Gardens      1
## 31    31            Go to jail      0
## 32    32        Pacific Avenue      0
## 33    33 North Carolina Avenue      1
## 34    34       Community Chest      0
## 35    35   Pennsylvania Avenue      1
## 36    36   Short Line Railroad      0
## 37    37               Chance      0
## 38    38            Park Place      0
## 39    39            Luxury Tax      0
## 40    40             Boardwalk      0
```