

Untitled

Nick Lauerman

11/4/2019

```
halls <- 1:8
doorSymbols <- c("Surf",
                 "Turf",
                 "Fin",
                 "Feather",
                 "Hook",
                 "Crook")

makeRoom <- function(){
  doors <- sample(doorSymbols, 6)
  outHall <- sample(halls,1)
  fountainPresent <- sample(c(TRUE,FALSE),1)
  if(fountainPresent){
    fountainPosion <- sample(c("Yes","No"),1)
  } else {
    fountainPosion <- " "
  }
  hold <- NULL
  hold <- data.frame(roomName = " ",
                    outHallway = outHall,
                    FountainPresent = fountainPresent,
                    FountainPosioned = fountainPosion,
                    door1 = doors[1],
                    door2 = doors[2],
                    door3 = doors[3],
                    door4 = doors[4],
                    door5 = doors[5],
                    door6 = doors[6])

  return(hold)
}

roomList <- NULL
for(i in 1:10000){
  currentRoom <- makeRoom()
  roomList <- rbind(roomList,currentRoom)
}

table(roomList$outHallway)

##
##      1      2      3      4      5      6      7      8
## 1206 1205 1284 1261 1291 1238 1255 1260

table(roomList$FountainPresent)

##
## FALSE  TRUE
##  4996  5004
```

```
table(roomList$FountainPosioned)
```

```
##  
##   No   Yes  
## 2524 2480 4996
```

```
table(roomList$door1)
```

```
##  
##      Fin      Surf  Crook Feather  Turf      Hook  
##      1702      1682      1601      1711      1707      1597
```

```
table(roomList$door2)
```

```
##  
##  Crook      Turf      Hook      Surf      Fin Feather  
##      1670      1648      1714      1658      1711      1599
```

```
table(roomList$door3)
```

```
##  
## Feather      Surf      Hook      Fin  Crook      Turf  
##      1682      1672      1643      1673      1685      1645
```

```
table(roomList$door4)
```

```
##  
##      Surf      Turf Feather  Crook      Hook      Fin  
##      1663      1701      1711      1621      1691      1613
```

```
table(roomList$door5)
```

```
##  
##      Hook      Fin  Crook Feather  Surf      Turf  
##      1706      1664      1717      1653      1609      1651
```

```
table(roomList$door6)
```

```
##  
##      Turf      Fin  Hook      Surf  Crook Feather  
##      1648      1637      1649      1716      1706      1644
```

```
prop.table(table(roomList$outHallway))
```

```
##  
##      1      2      3      4      5      6      7      8  
## 0.1206 0.1205 0.1284 0.1261 0.1291 0.1238 0.1255 0.1260
```

```
prop.table(table(roomList$FountainPresent))
```

```
##  
## FALSE TRUE  
## 0.4996 0.5004
```

```
prop.table(table(roomList$FountainPosioned))
```

```
##  
##      No      Yes  
## 0.2524 0.2480 0.4996
```

```
prop.table(table(roomList$door1))
```

```
##
##      Fin      Surf      Crook Feather      Turf      Hook
## 0.1702 0.1682 0.1601 0.1711 0.1707 0.1597
```

```
prop.table(table(roomList$door2))
```

```
##
##      Crook      Turf      Hook      Surf      Fin Feather
## 0.1670 0.1648 0.1714 0.1658 0.1711 0.1599
```

```
prop.table(table(roomList$door3))
```

```
##
## Feather      Surf      Hook      Fin      Crook      Turf
## 0.1682 0.1672 0.1643 0.1673 0.1685 0.1645
```

```
prop.table(table(roomList$door4))
```

```
##
##      Surf      Turf Feather      Crook      Hook      Fin
## 0.1663 0.1701 0.1711 0.1621 0.1691 0.1613
```

```
prop.table(table(roomList$door5))
```

```
##
##      Hook      Fin      Crook Feather      Surf      Turf
## 0.1706 0.1664 0.1717 0.1653 0.1609 0.1651
```

```
prop.table(table(roomList$door6))
```

```
##
##      Turf      Fin      Hook      Surf      Crook Feather
## 0.1648 0.1637 0.1649 0.1716 0.1706 0.1644
```

```
hist(roomList$outHallway)
```

Histogram of roomList\$outhHallway

