HW2

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```r
deck <- read.csv('deck.csv')
deck <- rbind(deck, deck, deck, deck)
head(deck)
```

```
##    face   suit value
## 1  king spades    10
## 2 queen spades    10
## 3  jack spades    10
## 4   ten spades    10
## 5  nine spades     9
## 6 eight spades     8
```

```r
shuffle_deck <- function(){
    deck <- deck[sample(1:nrow(deck)), ]
    rownames(deck)<- c(1:208)
    deck
}
head(shuffle_deck())
```

```
##    face     suit value
## 1   two    clubs     2
## 2 queen diamonds    10
## 3 three    clubs     3
## 4   ace    clubs     1
## 5  nine diamonds     9
## 6 three diamonds     3
```

```r
start_game <- function() {
  deck <<- shuffle_deck()
  dealers <<- deck[1:2, ]
  your <<- deck[3:4, ]
  i <<- 5
  cat('Dealers hand:\n', unlist(dealers[1, ]),'\n', unlist(dealers[2, ]))
  cat('\nsum:', sum(dealers$value))
  cat('\nYour hand:\n', unlist(your[1, ]),'\n', unlist(your[2, ]))
  cat('\nsum:', sum(your$value))
}
```

```r
deal <- function(){
 your[nrow(your) + 1,] <<- deck[i, ]
```

```
  your
  i <<- i+1
  cat('\nDealers hand:\n', unlist(dealers[1, ]),'\n', unlist(dealers[2, ]))
  cat('\nsum:', sum(dealers$value))
  cat('\nYour hand:\n')
  for (j in 1:nrow(your)){
    cat(' ',unlist(your[j, ]),'\n')
  }
  cat('sum:', sum(your$value))
}
```

```
stop_game <- function() {
  if (sum(your$value) > 21){
    cat('\nLOse')
  } else {
    if (sum(dealers$value > 21)){
      cat('\nWIn')
  } else {
    if (sum(your$value)>sum(dealers$value)){
      cat('\nWin')
    } else {
      cat('\nLose')
    }
  }}
}
```

Game1

```
start_game()
```

```
## Dealers hand:
##  seven hearts 7
##  ace clubs 1
## sum: 8
## Your hand:
##  jack spades 10
##  ten spades 10
## sum: 20
```

```
deal()
```

```
##
## Dealers hand:
##  seven hearts 7
##  ace clubs 1
## sum: 8
## Your hand:
##   jack spades 10
##   ten spades 10
##   three clubs 3
## sum: 23
```

```
stop_game()
```

```
##
## LOse
```

Game2

```
start_game()
```

```
## Dealers hand:
##  three diamonds 3
##  ten clubs 10
## sum: 13
## Your hand:
##  jack spades 10
##  king hearts 10
## sum: 20
```

```
deal()
```

```
##
## Dealers hand:
##  three diamonds 3
##  ten clubs 10
## sum: 13
## Your hand:
##   jack spades 10
##   king hearts 10
##   jack clubs 10
## sum: 30
```

```
deal()
```

```
##
## Dealers hand:
##  three diamonds 3
##  ten clubs 10
## sum: 13
## Your hand:
##   jack spades 10
##   king hearts 10
##   jack clubs 10
##   king clubs 10
## sum: 40
```

```
stop_game()
```

```
##
## LOse
```