My Solution

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Part 1

Identify the Elf Carrying the most Calories

Initialize DF

```
## [1] id       calories
## <0 rows> (or 0-length row.names)
```

Read in the data

```
lines <- readLines(file('./data/input.txt'), skipNul = FALSE)
```

```
## Warning in readLines(file("./data/input.txt"), skipNul = FALSE): incomplete
## final line found on './data/input.txt'
```

```
elfNum = 1

for (line in lines){
  if (line == ""){
    elfNum = elfNum + 1
  }
  else{
    df[nrow(df) + 1,] = c(elfNum, line)
  }
}

elfNum = 0

df$id <- as.integer(df$id)
df$calories <- as.integer(df$calories)

head(df)
```

```
##   id calories
## 1  1    15931
## 2  1     8782
## 3  1    16940
```

```
## 4  1    14614
## 5  2     4829
## 6  2    12415
```

Aggregate the data

```
df = df %>%
    group_by(id) %>%
    summarise(calories = sum(calories))

head(df)
```

```
## # A tibble: 6 x 2
##      id calories
##   <int>    <int>
## 1     1    56267
## 2     2    50143
## 3     3    47308
## 4     4    64230
## 5     5    47238
## 6     6    51084
```

Print the max

```
topElves <- df[which.max(df$calories),]
topElves
```

```
## # A tibble: 1 x 2
##      id calories
##   <int>    <int>
## 1    22    70116
```

Part 1 Complete

Answer: Elf 4 carrying 70,116 calories

Part 2

Identify the top three Elves and print their combined calories

```
topElves <- NULL
numTopElves = 3

while (numTopElves > 0){
```

```
  if (is.null(topElves)){
    # Find top elf and add to new df
    topElves <- df[which.max(df$calories),]

    # Isolating id of top elf
    tElf <- topElves[nrow(topElves),]
    tElf <- as.double(tElf[,1])

    #Removing Top elf from circulation
    df <- df %>%
      filter(!(df['id']) == tElf)

    # Deprecate exit var
    numTopElves = numTopElves - 1
  }
  else {
    # Add subsequent highest elf
    topElves[nrow(topElves) + 1,] = df[which.max(df$calories),]

    # Isolating id of subsequent elf
    tElf <- topElves[nrow(topElves),]
    tElf <- as.double(tElf[,1])

    # Removing from circulation
    df <- df %>%
    filter(!(df['id']) == tElf)

    # Deprecate exit var
    numTopElves = numTopElves - 1
  }
}

print(topElves)
```

```
## # A tibble: 3 x 2
##      id calories
##   <int>    <int>
## 1    22    70116
## 2   235    68706
## 3   131    67760
```

```
topElves %>%
  summarise(sum(calories))
```

```
## # A tibble: 1 x 1
##   `sum(calories)`
##             <int>
## 1          206582
```

Part 2 Complete

Answer: The top 3 elves were carrying 206582 combined calories