1

```
# 1 Create a data frame based on the following data
userHeightWeight <- data.frame(name = c("Joe", "Sue", "Jane", "Adam", "Bob", "Dale", "Kim", "Trish"),
                               height = c(167, 145, 155, 190, 164, 155, 152, 161),
                               weight = c(63, 55, 57, 71, 70, 52, 53, 61))

userHeightWeight
```

```
+ userHeightWeight
   name height weight
1   Joe    167     63
2   Sue    145     55
3  Jane    155     57
4  Adam    190     71
5   Bob    164     70
6  Dale    155     52
7   Kim    152     53
8 Trish    161     61
>
```

2

```
# 2 Use the first column of previous data frame and create a second data frame
userGender <- data.frame(name = userHeightWeight[1], Sex = c("M", "F", "F", "M", "M", "M", "F", "F"))

userGender
```

```
userGender
 name Sex
  Joe   M
  Sue   F
 Jane   F
 Adam   M
  Bob   M
 Dale   M
  Kim   F
Trish   F
```

3

```
# 3 Combine the two data frames into one data frame object
users <- merge.data.frame(userHeightWeight, userGender)

users
```

```
users
 name height weight Sex
 Adam    190     71   M
  Bob    164     70   M
 Dale    155     52   M
 Jane    155     57   F
  Joe    167     63   M
  Kim    152     53   F
  Sue    145     55   F
Trish    161     61   F
```

4

```
# 4 In this exercise you are working with a built in objects state.abb and state.center.
# Part A
stateLocations <- data.frame(stateAbrv = state.abb, state.center["x"],
state.center["y"])
colnames(stateLocations)[2] <- "Lat"
colnames(stateLocations)[3] <- "Long"

# Part B
searchStates <- c("NY", "PA", "MA", "VT", "CT", "NJ", "MD", "NH", "RI")

# Part C
filteredLocations <- stateLocations[match(searchStates, stateLocations$stateAbrv),]
filteredLocations
```

```
filteredLocations
 stateAbrv      Lat    Long
        NY -75.1449 43.1361
        PA -77.4500 40.9069
        MA -71.5800 42.3645
        VT -72.5450 44.2508
        CT -72.3573 41.5928
        NJ -74.2336 39.9637
        MD -76.6459 39.2778
        NH -71.3924 43.3934
        RI -71.1244 41.5928
```

5	# 5 Print the names of the top 5 states with the highest life expectancy lifeExpects <- data.frame(state.x77) sortedLifeExpects <- head(lifeExpects[order(lifeExpects$Life.Exp, decreasing = TRUE),] , n = 5) sortedLifeExpects["Life.Exp"]	> sortedLifeExpects["Life.Exp"] Life.Exp Hawaii 73.60 Minnesota 72.96 Utah 72.90 North Dakota 72.78 Nebraska 72.60