

## ASSIGNMENT 8.1

### Problem Statement

Use the package **-RcmdrPlugin.IPSUR-** `data(RcmdrTestDrive)` and perform the below operations:

a. Calculate the average salary by gender and smoking status.

**##Mean salary by Gender**

**`tapply(RcmdrTestDrive$salary, list(RcmdrTestDrive$gender, RcmdrTestDrive$smoking), mean)`**

```
      Nonsmoker   Smoker
Female  692.9093  733.2122
Male    740.9080  751.4900
```

b. Which gender has the highest mean salary?

**`tapply(RcmdrTestDrive$salary , RcmdrTestDrive$gender ,mean)`**

```
Female      Male
698.0911  743.3915
```

c. Report the highest mean salary.

**`max(mean(RcmdrTestDrive$salary))`**

```
[1] 724.5164
```

d. Compare the spreads for the genders by calculating the standard deviation of salary by gender. **`tapply(RcmdrTestDrive$salary, RcmdrTestDrive$gender, sd)`**

```
Female      Male
130.7053  158.5423
```