

Assignment 4.1

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```
df <- data.frame (PatientID = c(1,2,3,4),
                  AdmDate = c("10/15/2009", "11/01/2009 ", "10/21/2009", "10/28/2009 "),
                  Age = c(25,34,28,52),
                  Diabetes =c("Type1", "Type2", "Type1", "Type1"),
                  Status=c("Poor", "Improved", "Excellent", "Poor")
)
print(df)
```

| ## | PatientID | AdmDate | Age | Diabetes | Status |
|------|-----------|------------|-----|----------|-----------|
| ## 1 | 1 | 10/15/2009 | 25 | Type1 | Poor |
| ## 2 | 2 | 11/01/2009 | 34 | Type2 | Improved |
| ## 3 | 3 | 10/21/2009 | 28 | Type1 | Excellent |
| ## 4 | 4 | 10/28/2009 | 52 | Type1 | Poor |

```
subset1<-data.frame(df$PatientID,df$Age)
print(subset1)
```

| ## | df.PatientID | df.Age |
|------|--------------|--------|
| ## 1 | 1 | 25 |
| ## 2 | 2 | 34 |
| ## 3 | 3 | 28 |
| ## 4 | 4 | 52 |

```
type1<- subset(df,Diabetes=="Type1")
print(type1)
```

| ## | PatientID | AdmDate | Age | Diabetes | Status |
|------|-----------|------------|-----|----------|-----------|
| ## 1 | 1 | 10/15/2009 | 25 | Type1 | Poor |
| ## 3 | 3 | 10/21/2009 | 28 | Type1 | Excellent |
| ## 4 | 4 | 10/28/2009 | 52 | Type1 | Poor |

```
sum(df[ "Status"]== "Poor")
```

| |
|----------|
| ## [1] 2 |
|----------|

```
summary(df)
```

| ## | PatientID | AdmDate | Age | Diabetes |
|-------------|-----------|------------------|----------|----------|
| ## Min. | :1.00 | Length:4 | Min. | :25.00 |
| ## 1st Qu.: | :1.75 | Class :character | 1st Qu.: | :27.25 |
| ## Median : | :2.50 | Mode :character | Median : | :31.00 |
| ## Mean : | :2.50 | | Mean : | :34.75 |
| ## 3rd Qu.: | :3.25 | | 3rd Qu.: | :38.50 |
| ## Max. | :4.00 | | Max. | :52.00 |
| ## Status | | | | |
| ## Length: | 4 | | | |
| ## Class : | character | | | |
| ## Mode : | character | | | |
| ## | | | | |
| ## | | | | |
| ## | | | | |

```
age<-df$Age
mean(age)
```

| |
|--------------|
| ## [1] 34.75 |
|--------------|

```
my_matrix<-matrix(data = 1:10, nrow=5 , ncol=2,byrow=TRUE)
s <- c("First", "Second", "Third")

a = c(12, 14,16, 20)

MyList<- "My First List"
criteria<-list(a,my_matrix,s)
names(criteria)<-c("Age", "Matrix" , "Score")
cat(MyList)
```

| |
|------------------|
| ## My First List |
|------------------|

```
print(criteria)
```

| |
|---------------------------------|
| ## \$Age |
| ## [1] 12 14 16 20 |
| ## |
| ## \$Matrix |
| ## [,1] [,2] |
| ## [1,] 1 2 |
| ## [2,] 3 4 |
| ## [3,] 5 6 |
| ## [4,] 7 8 |
| ## [5,] 9 10 |
| ## |
| ## \$Score |
| ## [1] "First" "Second" "Third" |

```
cat(a)
```

| |
|----------------|
| ## 12 14 16 20 |
|----------------|