

# DATA ANALYTICS WITH R, EXCEL AND TABLAEU

## ASSIGNMENT 6.1 ANSWERS

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### Question no:

5)

1. Import the Titanic Dataset from the link  
Titanic Data Set.

Perform the following:

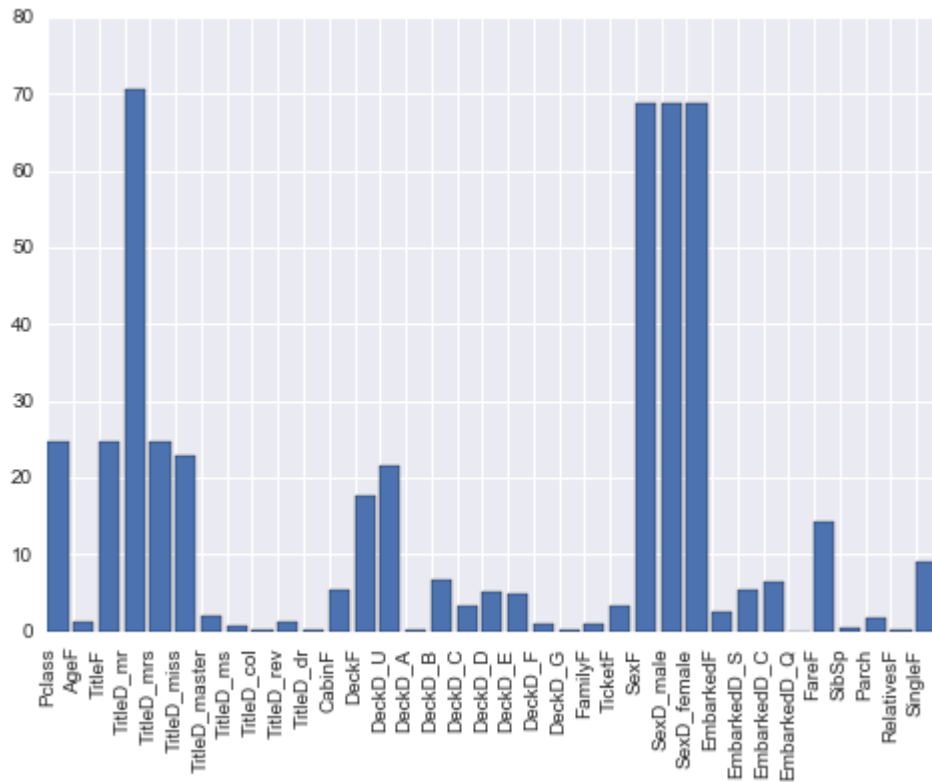
- a. Preprocess the passenger names to come up with a list of titles that represent families and represent using appropriate visualization graph.
- b. Represent the proportion of people survived from the family size using a graph.
- c. Impute the missing values in Age variable using Mice Library, create two different graphs showing Age distribution before and after imputation.

### Ans:

```
from sklearn.feature_selection import SelectKBest
selector = SelectKBest(k=5)
selector.fit(train_data_munged[predictors], train_data_munged["Survived"])

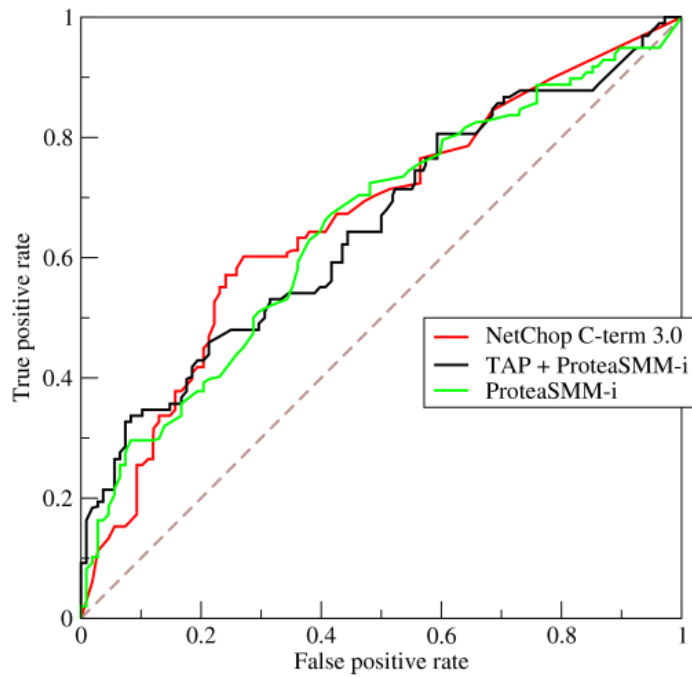
scores = -np.log10(selector.pvalues_)

plt.bar(range(len(predictors)), scores)
plt.xticks(range(len(predictors)), predictors, rotation='vertical')
plt.show()
```



b. Represent the proportion of people survived from the family size using a graph.

**Ans**



```
tempData <- mice(data,m=5,maxit=50,meth='pmm',seed=500)
summary(tempData)
```

**Multiply imputed data set**

**Call:**

```
mice(data = data, m = 5, method = "pmm", maxit = 50, seed = 500)
```

**Number of multiple imputations: 5**

**Missing cells per column:**

Ozone	Solar.R	Wind	Temp
37	7	7	5

**Imputation methods:**

Ozone	Solar.R	Wind	Temp
"pmm"	"pmm"	"pmm"	"pmm"

**VisitSequence:**

Ozone	Solar.R	Wind	Temp
1	2	3	4

**PredictorMatrix:**

	Ozone	Solar.R	Wind	Temp
Ozone	0	1	1	1
Solar.R	1	0	1	1
Wind	1	1	0	1
Temp	1	1	1	0

**Random generator seed value: 500**