

Name :Yehia Ahmed Hassan EL-Boudy (20191311656).

Ahmed Hany Mohamed Abdulawahab (20191310663).

Mamoun Mohamed Hassan Abdelbaey (20191312895).

ID Number : 20191311656.

Subject : Data science methodolgy.

To Professor :Dr/ Magda Matbouly

---

## Project

# Logistic Regression

Logistic Regression is a Machine Learning algorithm which is used for the classification problems, it is a predictive analysis algorithm and based on the concept of probability.

- In this model, we split the data set into two different sets to test the accuracy of our model and predict the percentage of survival rates by storing each feature in a list, and training it with the survival feature which is goal feature.

- 

```
from sklearn.linear_model import LogisticRegression
```

```
lr = LogisticRegression()
```

```
X_Age = trainML[['Age']].values
```

```
y = trainML['Survived'].values
```

```
#Training the model
```

```
lr.fit(X_Age,y)
```

```
#Making a prediction
```

```
y_predict = lr.predict(X_Age)
```

```
(y == y_predict).mean()
```

```
0.6182432432432432
```

```
X_Fare = trainML[['Fare']].values
```

```
lr.fit(X_Fare,y)
```

```
y_predict = lr.predict(X_Fare)
```

```
(y == y_predict).mean()
```

```
0.6621621621621622
```

```
X_sex = pd.get_dummies(trainML['Sex']).values
```

```
lr.fit(X_sex,y)
```

```
y_predict = lr.predict(X_sex)
```

```
(y == y_predict).mean()
```

```
0.786036036036036
```