



Session 17

Assignment 1 Question

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1. Introduction

This assignment will help you to consolidate the concepts learnt in the session.

2. Problem Statement

Predicting Survival in the Titanic Data Set

We will be using a decision tree to make predictions about the Titanic data set from Kaggle. This data set provides information on the Titanic passengers and can be used to predict whether a passenger survived or not.

Loading Data and modules

```
import numpy as np
```

```
import pandas as pd
```

```
import seaborn as sb
```

```
import matplotlib.pyplot as plt
```

```
import sklearn
```

```
from pandas import Series, DataFrame
```

```
from pylab import rcParams
```

```
from sklearn import preprocessing
```

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

```
from sklearn.cross_validation import train_test_split
```

```
from sklearn import metrics
```

```
from sklearn.metrics import classification_report
```

```
Url=
```

```
https://raw.githubusercontent.com/BigDataGal/Python-for-Data-Science/master/titanic-train.csv
```

```
titanic = pd.read_csv(url)
```

```
titanic.columns  
['PassengerId', 'Survived', 'Pclass', 'Name', 'Sex', 'Age', 'SibSp', 'Parch', 'Ticket', 'Fare', 'Cabin', 'Embarked']
```

You use only Pclass, Sex, Age, SibSp (Siblings aboard), Parch (Parents/children aboard), and Fare to predict whether a passenger survived.

NOTE: The solution shared through Github should contain the source code used and the screenshot of the output.

3. Output

N/A