

Medical Cost Personal Insurance Project

import Required Libraries:

```
In [ ]: import pandas as pd
        from sklearn.model_selection import train_test_split
        from xgboost import XGBClassifier
        from sklearn.metrics import accuracy_score, classification_report, confusion_matrix
```

Load Data

```
In [ ]: import pandas as pd
        import numpy as np
        import matplotlib.pyplot as plt
        import seaborn as sns
```

```
In [ ]: # Loading the csv data to a pandas DataFrame
        insurance_data = pd.read_csv("insurance.csv")
        insurance_data
```

```
In [ ]:
```

| | age | sex | bmi | children | smoker | region | charges |
|------|-----|--------|--------|----------|--------|-----------|-------------|
| 0 | 19 | female | 27.900 | 0 | yes | southwest | 16884.92400 |
| 1 | 18 | male | 33.770 | 1 | no | southwest | 1725.55230 |
| 2 | 28 | male | 33.000 | 3 | no | southwest | 4449.46200 |
| 3 | 33 | male | 22.705 | 0 | no | northwest | 21984.47061 |
| 4 | 32 | male | 28.880 | 0 | no | northwest | 3866.85520 |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1333 | 50 | male | 30.970 | 3 | no | northwest | 10600.54830 |
| 1334 | 18 | female | 31.920 | 0 | no | northwest | 2205.98080 |