

This Python 3 environment comes with many helpful analytics libraries installed

It is defined by the kaggle/python Docker image: <https://github.com/kaggle/docker-python>

For example, here's several helpful packages to load

```
import numpy as np # linear algebra
```

```
import pandas as pd # data processing, CSV file I/O (e.g. pd.read_csv)
```

Input data files are available in the read-only "../input/" directory

For example, running this (by clicking run or pressing Shift+Enter) will list all files under the input directory

```
import os
```

```
for dirname, _, filenames in os.walk('/kaggle/input'):
```

```
    for filename in filenames:
```

```
        print(os.path.join(dirname, filename))
```

You can write up to 20GB to the current directory (/kaggle/working/) that gets preserved as output when you create a version using "Save & Run All"

You can also write temporary files to /kaggle/temp/, but they won't be saved outside of the current session

```
train_data = pd.read_csv('/kaggle/input/titanic/train.csv')
```

```
train_data.head()
```

```
test_data = pd.read_csv('/kaggle/input/titanic/test.csv')
```

```
test_data.head()
```

```
import pandas as pd
```

```
import xgboost as xgb
```

```
from sklearn.model_selection import train_test_split
```

```
from sklearn.metrics import accuracy_score
```

```
features = ['Sex', 'Pclass', 'Parch', 'SibSp']
```

```
X = pd.get_dummies(train_data[features])
```

```
y = train_data['Survived']
```

```
X_train, X_val, y_train, y_val = train_test_split(X, y, test_size=0.2, random_state=42)
xgb_model = xgb.XGBClassifier(n_estimators=100, max_depth=5, learning_rate=0.1,
random_state=1)
xgb_model.fit(X_train, y_train)

y_pred = xgb_model.predict(X_val)

X_test = pd.get_dummies(test_data[features])
test_predictions = xgb_model.predict(X_test)

output = pd.DataFrame({'PassengerId': test_data.PassengerId, 'Survived':
test_predictions})
output.to_csv('submission.csv', index=False)
print("Your submission was successfully saved!")
```