```
#build a_model_to_predict_if_person_would_survive_or_not_using decisio
algorithm
```

build
a_model_to_predict_if_person_would_survive_
decision tree algorithm

```
import pandas as pd


df= pd.read_csv("/content/titanic.csv")
df.head()
```

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S

```
df.drop(['PassengerId','Name','SibSp','Parch','Ticket','Cabin','Embarked'], axis='columns', inplace=True)


df.head()
```

	Survived	Pclass	Sex	Age	Fare
0	0	3	male	22.0	7.2500
1	1	1	female	38.0	71.2833
2	1	3	female	26.0	7.9250
3	1	1	female	35.0	53.1000
4	0	3	male	35.0	8.0500

```
inputs=df.drop('Survived',axis='columns')
target=df.Survived


inputs.Sex=inputs.Sex.map({'male':1,'female':2})


inputs.Age[:10]
```

```
0    22.0
1    38.0
2    26.0
3    35.0
4    35.0
5     NaN
6    54.0
7     2.0
8    27.0
9    14.0
Name: Age, dtype: float64
```

```
inputs.Age = inputs.Age.fillna(inputs.Age.mean())


inputs.head()
```

	Pclass	Sex	Age	Fare
0	3	1	22.0	7.2500
1	1	2	38.0	71.2833
2	3	2	26.0	7.9250
3	1	2	35.0	53.1000
4	3	1	35.0	8.0500

```
from sklearn.model_selection import train_test_split
X_train,X_test,y_train,y_test=train_test_split(inputs,target,test_size=0.2)
```

```
len(X_train)
```

```
712
```

```
len(X_test)
```

```
179
```

```
from sklearn import tree
model = tree.DecisionTreeClassifier()
```

```
model.fit(X_train,y_train)
```

```
DecisionTreeClassifier
DecisionTreeClassifier()
```

```
model.score(X_test,y_test)
```

```
1.0
```

Start coding or generate with AI.

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