```
#  logisticregression model == classification model and target data categori
# in backend
# activation function == ese mathematical function jo humra data ke andar no
```

```
import numpy as np
import pandas as pd
```

```
df=pd.read_csv('/content/covid_toy - covid_toy (1).csv')
df.head(2)
```

	age	gender	fever	cough	city	has_covid
0	60	Male	103.0	Mild	Kolkata	No
1	27	Male	100.0	Mild	Delhi	Yes

Next steps: (Generate code with df)   (New interactive sheet)

```
df.isnull().sum()
```

	0
age	0
gender	0
fever	10
cough	0
city	0
has_covid	0

dtype: int64

```
df['fever']=df['fever'].fillna(df['fever'].mean())
```

```
df.isnull().sum()
```

	0
age	0
gender	0
fever	0
cough	0
city	0
has_covid	0

dtype: int64

```python
from sklearn.preprocessing import LabelEncoder
```

```python
lb=LabelEncoder()
```

```python
df['gender']=lb.fit_transform(df['gender'])
df['cough']=lb.fit_transform(df['cough'])
df['city']=lb.fit_transform(df['city'])
```

```python
df.head(2)
```

	age	gender	fever	cough	city	has_covid
0	60	1	103.0	0	2	No
1	27	1	100.0	0	1	Yes

Next steps: [Generate code with df]   [New interactive sheet]

```python
x=df.drop('has_covid',axis=1)
y=df['has_covid']
```

```python
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.2,random_stat
```

```python
from sklearn.linear_model import LogisticRegression
lr=LogisticRegression()
```

```python
# lr.fit(x_train,y_train)
lr.fit(x_train, y_train)
```

```
▼ LogisticRegression    ⓘ ⓘ
LogisticRegression()
```

```
y_pred=lr.predict(x_test)          # UNSEEN DATA
```

```
from sklearn.metrics import accuracy_score                    # ACCURACY_SC
```

```
accuracy_score(y_test,y_pred)
```
```
0.55
```