

EXP:7

```
from sklearn.datasets import load_breast_cancer

from sklearn.model_selection import train_test_split

from sklearn.linear_model import LogisticRegression

from sklearn.metrics import accuracy_score

X, y = load_breast_cancer(return_X_y=True)

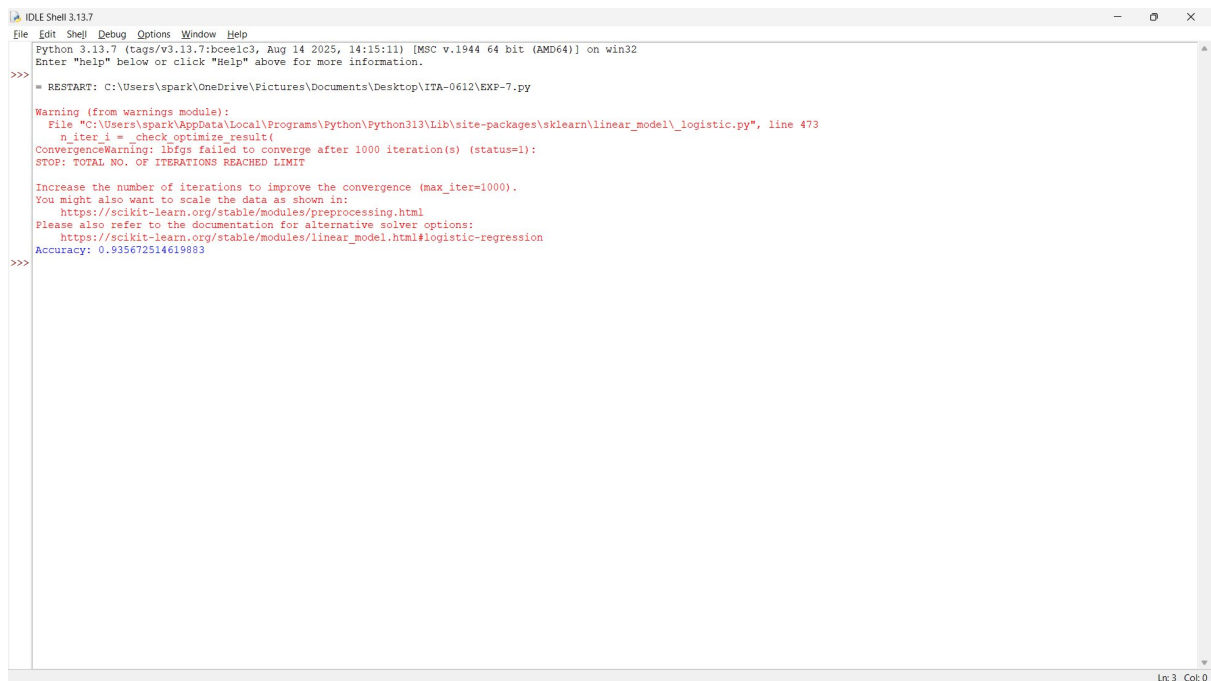
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3)

model = LogisticRegression(max_iter=1000)

model.fit(X_train, y_train)

y_pred = model.predict(X_test)

print("Accuracy:", accuracy_score(y_test, y_pred))
```



```
IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.
>>>
= RESTART: C:\Users\spark\OneDrive\Pictures\Documents\Desktop\ITA-0612\EXP-7.py
Warning (from warnings module):
  File "C:\Users\spark\AppData\Local\Programs\Python\Python313\Lib\site-packages\sklearn\linear_model\logistic.py", line 473
    n_iter_1 = _check_optimize_result(
ConvergenceWarning: lbfgs failed to converge after 1000 iteration(s) (status=1):
STOP: TOTAL NO. OF ITERATIONS REACHED LIMIT

Increase the number of iterations to improve the convergence (max_iter=1000).
You might also want to scale the data as shown in:
  https://scikit-learn.org/stable/modules/preprocessing.html
Please also refer to the documentation for alternative solver options:
  https://scikit-learn.org/stable/modules/linear_model.html#logistic-regression
Accuracy: 0.935672514619883
>>>
```