```
# Importing necessary libraries
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import classification_report, confusion_matrix, accuracy_score

# Load the dataset
from google.colab import files
uploaded = files.upload()
df = pd.read_csv("Testing.csv")

# Basic info
print(df.head())
print(df.describe())
print(df.info())
print(df.columns)

# Check for null values
print(df.isnull().sum())

# Correlation matrix
sns.heatmap(df.drop('prognosis', axis=1).corr(), annot=True)
plt.show()

# Splitting the dataset
X = df.drop('prognosis', axis=1)
y = df['prognosis']
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=0)

# Logistic Regression
model = LogisticRegression()
model.fit(X_train, y_train)

# Predictions
predictions = model.predict(X_test)

# Evaluation
print("Accuracy:", accuracy_score(y_test, predictions))
print("Confusion Matrix:\n", confusion_matrix(y_test, predictions))
print("Classification Report:\n", classification_report(y_test, predictions))
```

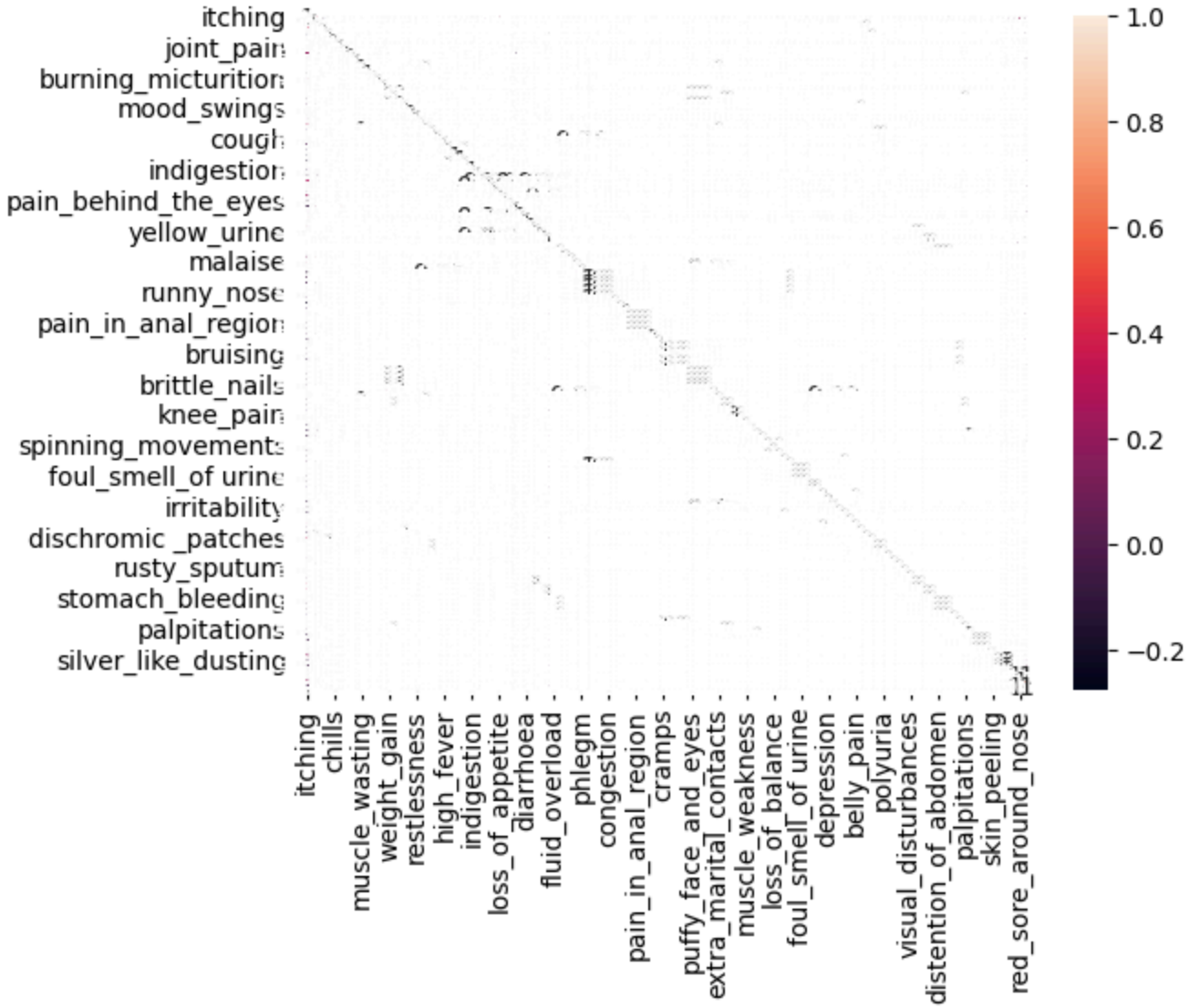
Choose Files Testing.csv

- **Testing.csv**(text/csv) - 13781 bytes, last modified: 5/7/2025 - 100% done

```
Saving Testing.csv to Testing.csv
   itching  skin_rash  nodal_skin_eruptions  continuous_sneezing  shivering  \
0        1          1                     1                    0          0
1        0          0                     0                    1          1
2        0          0                     0                    0          0
3        1          0                     0                    0          0
4        1          1                     0                    0          0

   chills  joint_pain  stomach_pain  acidity  ulcers_on_tongue  ...  \
0       0           0             0        0                 0  ...
1       1           0             0        0                 0  ...
2       0           0             1        1                 1  ...
3       0           0             0        0                 0  ...
4       0           0             1        0                 0  ...

   blackheads  scurring  skin_peeling  silver_like_dusting  \
0           0         0             0                    0
1           0         0             0                    0
2           0         0             0                    0
3           0         0             0                    0
4           0         0             0                    0

   small_dents_in_nails  inflammatory_nails  blister  red_sore_around_nose  \
0                     0                   0        0                     0
1                     0                   0        0                     0
2                     0                   0        0                     0
3                     0                   0        0                     0
4                     0                   0        0                     0

   yellow_crust_ooze            prognosis
0                  0     Fungal infection
1                  0               Allergy
2                  0                  GERD
3                  0  Chronic cholestasis
4                  0         Drug Reaction

[5 rows x 133 columns]
         itching  skin_rash  nodal_skin_eruptions  continuous_sneezing  \
count  42.000000  42.000000             42.000000            42.000000
mean    0.166667   0.190476              0.023810             0.047619
std     0.377195   0.397437              0.154303             0.215540
min     0.000000   0.000000              0.000000             0.000000
25%     0.000000   0.000000              0.000000             0.000000
50%     0.000000   0.000000              0.000000             0.000000
75%     0.000000   0.000000              0.000000             0.000000
max     1.000000   1.000000              1.000000             1.000000

       shivering     chills  joint_pain  stomach_pain    acidity  \
count  42.000000  42.000000   42.000000     42.000000  42.000000
mean    0.023810   0.166667    0.142857      0.047619   0.047619
std     0.154303   0.377195    0.354169      0.215540   0.215540
min     0.000000   0.000000    0.000000      0.000000   0.000000
25%     0.000000   0.000000    0.000000      0.000000   0.000000
50%     0.000000   0.000000    0.000000      0.000000   0.000000
```

```
75%     0.000000   0.000000    0.000000      0.000000   0.000000
max     1.000000   1.000000    1.000000      1.000000   1.000000

       ulcers_on_tongue  ...  pus_filled_pimples  blackheads   scurring  \
count         42.000000  ...           42.000000   42.000000  42.000000
mean           0.023810  ...            0.023810    0.023810   0.023810
std            0.154303  ...            0.154303    0.154303   0.154303
min            0.000000  ...            0.000000    0.000000   0.000000
25%            0.000000  ...            0.000000    0.000000   0.000000
50%            0.000000  ...            0.000000    0.000000   0.000000
75%            0.000000  ...            0.000000    0.000000   0.000000
max            1.000000  ...            1.000000    1.000000   1.000000

       skin_peeling  silver_like_dusting  small_dents_in_nails  \
count     42.000000            42.000000             42.000000
mean       0.047619             0.023810              0.023810
std        0.215540             0.154303              0.154303
min        0.000000             0.000000              0.000000
25%        0.000000             0.000000              0.000000
50%        0.000000             0.000000              0.000000
75%        0.000000             0.000000              0.000000
max        1.000000             1.000000              1.000000

       inflammatory_nails    blister  red_sore_around_nose  yellow_crust_ooze
count           42.000000  42.000000             42.000000          42.000000
mean             0.023810   0.023810              0.047619           0.023810
std              0.154303   0.154303              0.215540           0.154303
min              0.000000   0.000000              0.000000           0.000000
25%              0.000000   0.000000              0.000000           0.000000
50%              0.000000   0.000000              0.000000           0.000000
75%              0.000000   0.000000              0.000000           0.000000
max              1.000000   1.000000              1.000000           1.000000

[8 rows x 132 columns]
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 42 entries, 0 to 41
Columns: 133 entries, itching to prognosis
dtypes: int64(132), object(1)
memory usage: 43.8+ KB
None
Index(['itching', 'skin_rash', 'nodal_skin_eruptions', 'continuous_sneezing',
       'shivering', 'chills', 'joint_pain', 'stomach_pain', 'acidity',
       'ulcers_on_tongue',
       ...
       'blackheads', 'scurring', 'skin_peeling', 'silver_like_dusting',
       'small_dents_in_nails', 'inflammatory_nails', 'blister',
       'red_sore_around_nose', 'yellow_crust_ooze', 'prognosis'],
      dtype='object', length=133)
itching                 0
skin_rash               0
nodal_skin_eruptions    0
continuous_sneezing     0
shivering               0
                       ..
inflammatory_nails      0
blister                 0
red_sore_around_nose    0
```

```
red_sore_around_nose    0
yellow_crust_ooze       0
prognosis               0
Length: 133, dtype: int64
```




```
Accuracy: 0.0
Confusion Matrix:
 [[0 0 0 0 0 0 0 0 0 0 1 0 0 0]
 [0 0 0 0 0 1 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 1 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 1 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0 0 0 0 0 0]
 [0 0 1 0 0 0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 1 0 0 0 0 0]
 [0 0 0 0 0 0 0 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 1 0 0 0 0 0 0 0]
 [0 0 0 0 0 0 1 0 0 0 0 0 0 0]
 [0 0 0 0 0 1 0 0 0 0 0 0 0 0]]
Classification Report:
                                              precision    recall  f1-score   suppor

(vertigo) Paroymsal  Positional Vertigo       0.00      0.00      0.00       1.0
```

Acne	0.00	0.00	0.00	1.0
Cervical spondylosis	0.00	0.00	0.00	0.0
Dimorphic hemmorhoids(piles)	0.00	0.00	0.00	1.0
Drug Reaction	0.00	0.00	0.00	1.0
Fungal infection	0.00	0.00	0.00	0.0
Heart attack	0.00	0.00	0.00	0.0
Hypertension	0.00	0.00	0.00	1.0
Hypoglycemia	0.00	0.00	0.00	0.0
Migraine	0.00	0.00	0.00	1.0
Paralysis (brain hemorrhage)	0.00	0.00	0.00	0.0
Pneumonia	0.00	0.00	0.00	1.0
Tuberculosis	0.00	0.00	0.00	1.0
Varicose veins	0.00	0.00	0.00	1.0