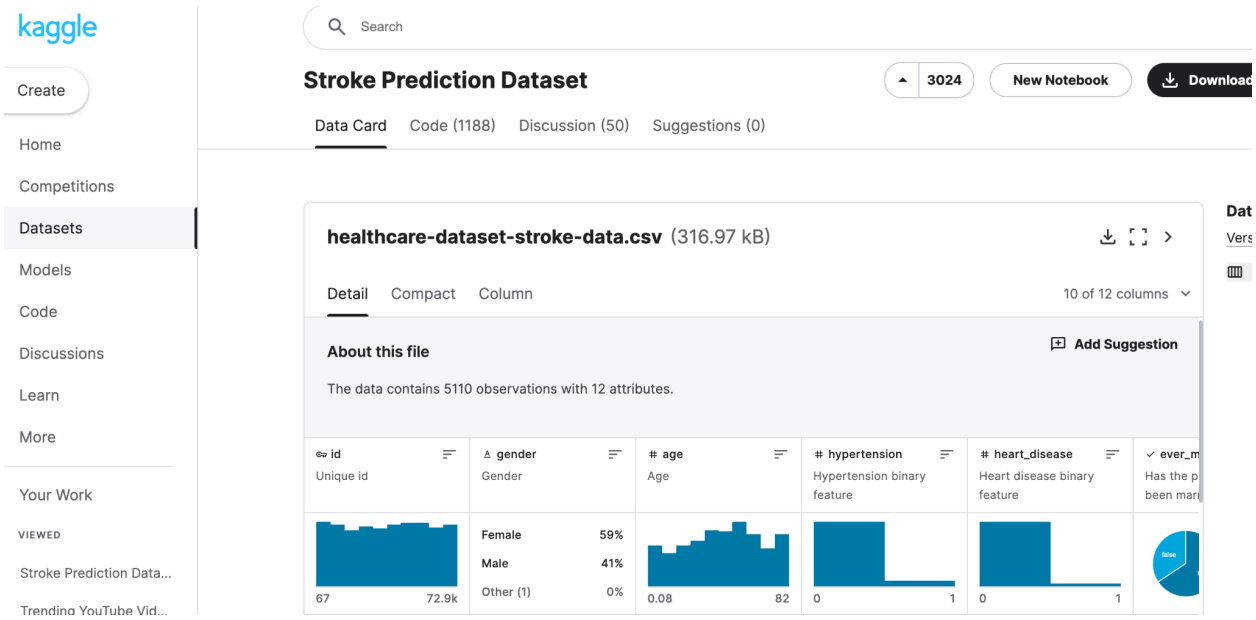
Week4: Deployment on Flask

Name: Awwab Ahmed
Batch code: LISUM34
Submission date: June 26, 2024
Submitted to: Data Glacier

Steps of Deployment:

First, I selected the Stroke Prediction Dataset and downloaded it form Kaggle



I loaded the file into my IDE and encoded the categorical columns:

```
label_encoders = {}
categorical_columns = ['gender', 'ever_married', 'work_type', 'Residence_type', 'smoking_status']

for col in categorical_columns:
    le = LabelEncoder()
    df[col] = le.fit_transform(df[col])
    label_encoders[col] = le
```

Then, I trained the model.

```
X_train, X_test, y_train, y_test = train_test_split(x, y, test_size=0.2, random_state=42)
```

```
scaler = StandardScaler()
X_train = scaler.fit_transform(X_train)
X_test = scaler.transform(X_test)
```

+ Code + Markdo

```
model = RandomForestClassifier(random_state=42)
model.fit(X_train, y_train)
```

Then, I saved the model as a pickle file.

```
pickle.dump(model,open('model.pkl','wb'))
```

Then, I created a python file to deploy the model to flask.

Week4 > app.py > predict

```
1  import numpy as np
2  from flask import Flask, request,render_template
3  import pickle
4
5  app = Flask(__name__)
6  m (variable) app: Flask 'model.pkl', 'rb'))
7
8  @app.route('/')
9  def home():
10     return render_template('index.html')
11
12 @app.route('/predict',methods=['POST'])
13 def predict():
14     int_features = [int(float(x)) for x in request.form.values()]
15     final_features = [np.array(int_features)]
16     prediction = model.predict(final_features)
17
18     return render_template('index.html', prediction_text='Is this patient likely to get a stroke?: {}'.format(prediction))
19
20 if __name__ == "__main__":
21     app.run(debug=True)
```

I also created the webpage in an index.html file.