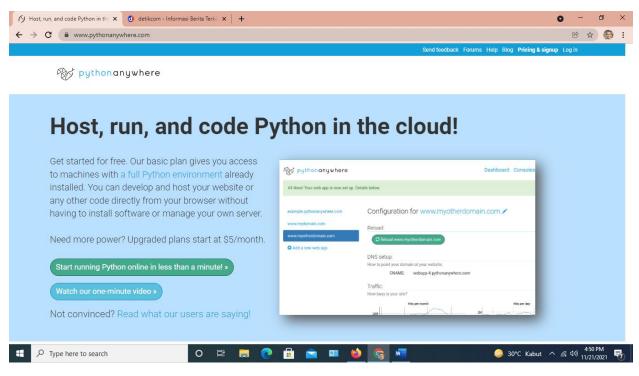
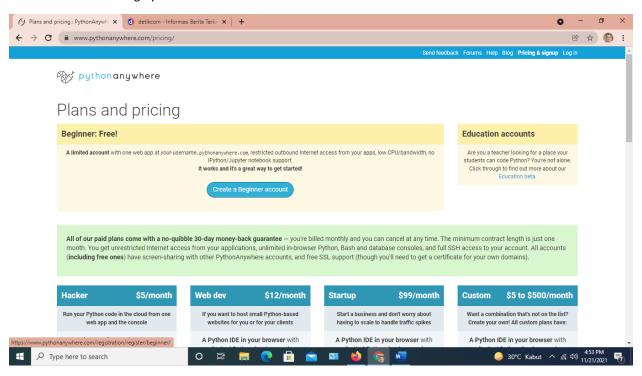
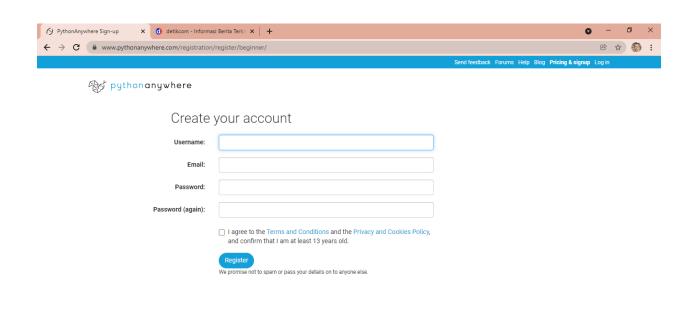
Buka situs pythonanywhere.com

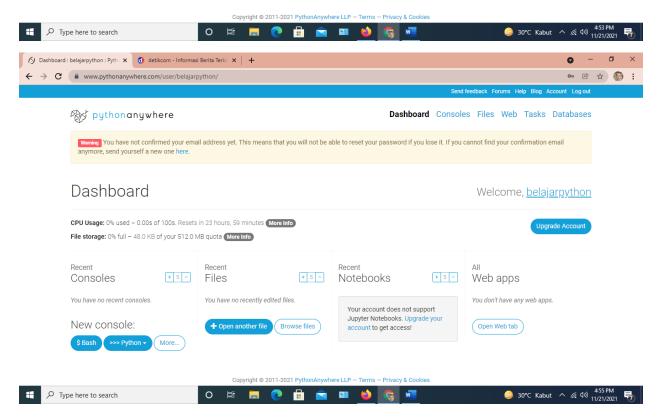


Pilih menu Start running Python online

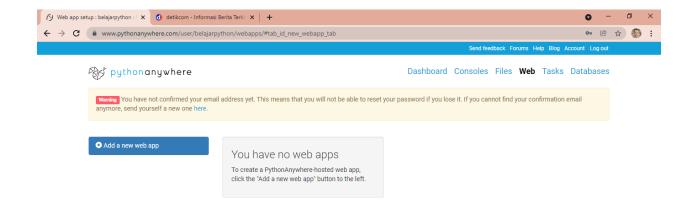


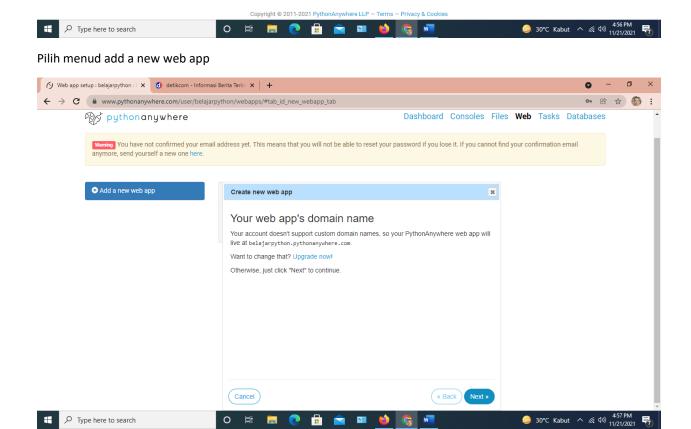
Pilih create a Begiiner account

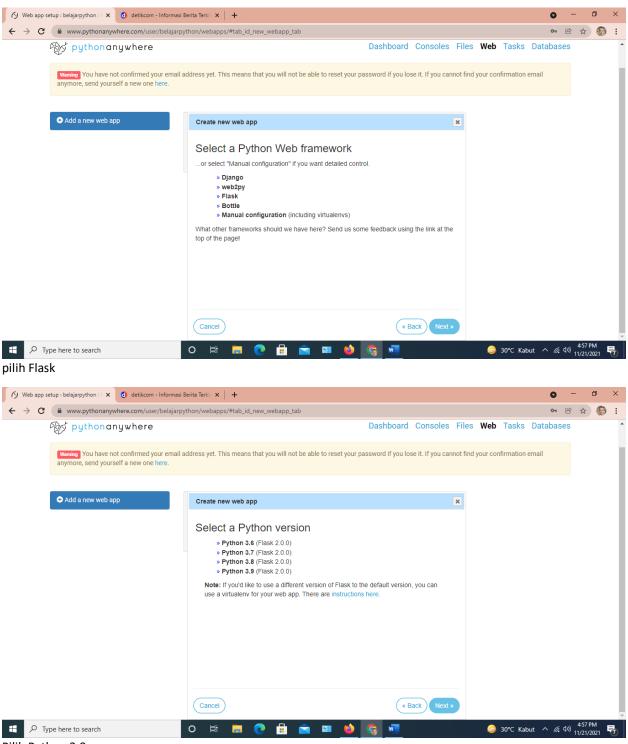




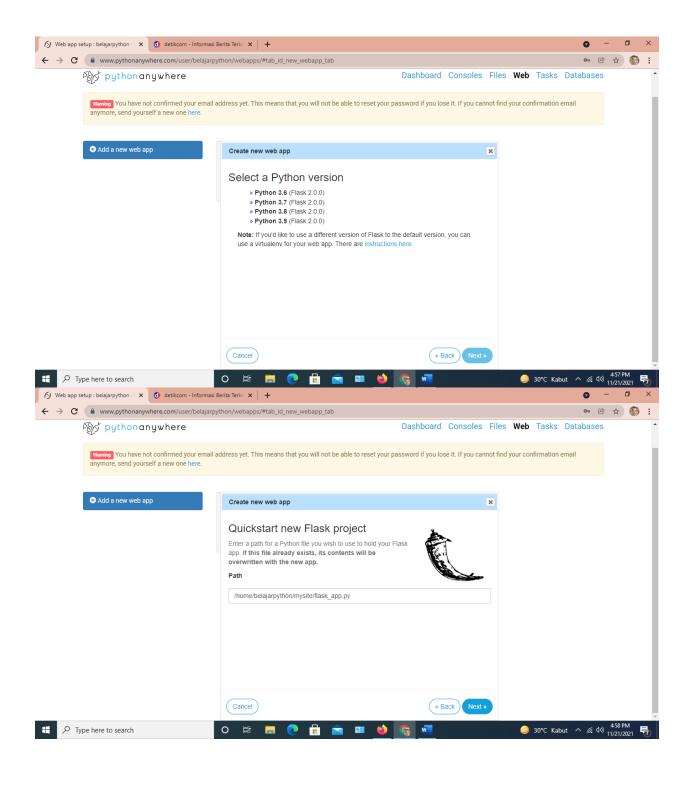
Pilih menu web

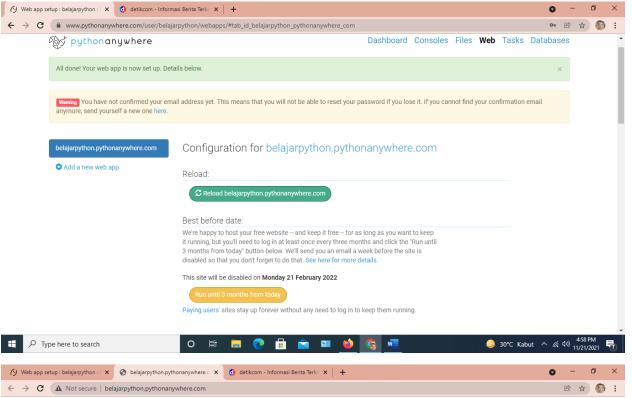






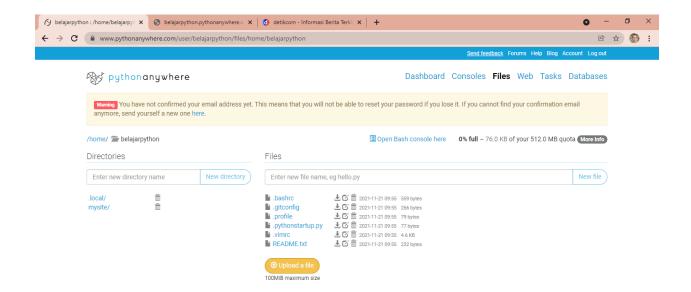
Pilih Python 3.9

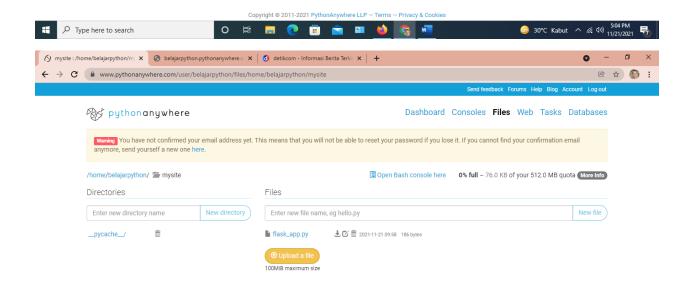




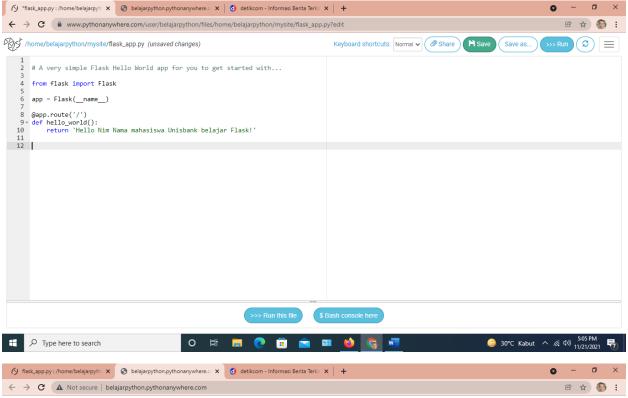
Hello from Flask!







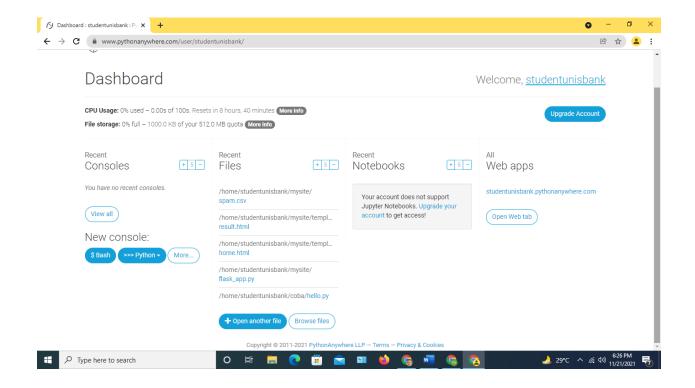




Hello Nim Nama mahasiswa Unisbank belajar Flask!



http://studentunisbank.pythonanywhere.com/



/home/studentunisbank/mysite/flask_app.py

import pandas as pd

from flask import Flask,render_template,url_for,request

from sklearn.model_selection import train_test_split

```
import pickle
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.naive_bayes import MultinomialNB
from sklearn.externals import joblib
app = Flask(__name__)
@app.route('/')
def home():
        return render_template('home.html')
@app.route('/predict',methods=['POST'])
def predict():
  df = pd.read csv('/home/studentunisbank/mysite/spam.csv')
  df.drop(['Unnamed: 2', 'Unnamed: 3', 'Unnamed: 4'], axis=1, inplace=True)
  df['label'] = df['class'].map({'ham': 0, 'spam': 1})
  y = df['label']
        # Features and Labels
  X = df['message']
  cv = CountVectorizer()
  X = cv.fit_transform(X)
        # Fit the Data
        # Extract Feature With CountVectorizer
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.33, random_state=42)
        #Naive Bayes Classifier
 clf = MultinomialNB()
 clf.fit(X_train,y_train)
 clf.score(X test,y test)
        #Alternative Usage of Saved Model
        # joblib.dump(clf, 'NB spam model.pkl')
        # NB spam model = open('NB spam model.pkl','rb')
        # clf = joblib.load(NB_spam_model)
 if request.method == 'POST':
    message = request.form['message']
    data = [message]
    vect = cv.transform(data).toarray()
    my prediction = clf.predict(vect)
  return render_template('result.html',prediction = my_prediction)
if __name__ == '__main__':
        app.run(debug=True)
/home/studentunisbank/mysite/templates/home.html
<!DOCTYPE html>
<html>
<head>
<title> Welcome </title>
k rel="stylesheet" type="text/css" href="/static/style.css">
</head>
<body>
        <header>
                <div class="container">
                <div id="brandname">
                         Machine Learning App with Flask
                </div>
                <h2>Spam Detector For SMS Messages</h2>
        </div>
        </header>
        <div class="ml-container">
                <form action="{{ url for('predict')}}" method="POST">
                Enter Your Message Here
                <!-- <input type="text" name="comment"/> -->
                <textarea name="message" rows="4" cols="50"></textarea>
                <br/>
                <input type="submit" class="btn-info" value="predict">
```

```
</form>
       </div>
/home/studentunisbank/mysite/templates/result.html
<!DOCTYPE html>
<html>
<head>
       <title></title>
 <link rel="stylesheet" type="text/css" href="/static/style.css">
</head>
<body>
       <header>
               <div class="container">
               <div id="brandname">
                       ML App
               </div>
               <h2>Spam Detector For SMS Messages</h2>
       </div>
       </header>
       <b>Results for Comment</b>
       <div class="results">
       {% if prediction == 1%}
       <h2 style="color:red;">Spam</h2>
       {% elif prediction == 0%}
       <h2 style="color:blue;">Not a Spam (It is a Ham)</h2>
       {% endif %}
       </div>
<a href="http://studentunisbank.pythonanywhere.com/">Back</a>
</body>
</html>
/home/studentunisbank/style/style.css
body{
       font:15px/1.5 Arial, Helvetica, sans-serif;
       padding: 0px;
       background-color:#f4f3f3;
}
.container{
       width:100%;
       margin: auto;
       overflow: hidden;
}
```

```
header{
        background:#03A9F4;#35434a;
        border-bottom:#448AFF 3px solid;
        height:120px;
        width:100%;
        padding-top:30px;
}
.main-header{
                         text-align:center;
                         background-color: blue;
                         height:100px;
                         width:100%;
                         margin:0px;
                 }
#brandname{
        float:left;
        font-size:30px;
        color: #fff;
        margin: 10px;
}
header h2{
        text-align:center;
        color:#fff;
}
.btn-info {background-color: #2196F3;
        height:40px;
        width:100px;} /* Blue */
.btn-info:hover {background: #0b7dda;}
.resultss{
        border-radius: 15px 50px;
  background: #345fe4;
  padding: 20px;
 width: 200px;
 height: 150px;
}
```