App.py

```
import tensorflow as tf
import tensorflow_hub as hub
import warnings
warnings.filterwarnings('ignore')
import h5py
import numpy as np
import os
from flask import Flask, app,request,render_template
from tensorflow import keras
import cv2
import tensorflow_hub as hub


model = tf.keras.models.load_model(filepath='rice.h5',custom_objects={'KerasLayer':hub.KerasLayer})
app = Flask(__name__)

@app.route('/')
def home():
    return render_template('index.html')

@app.route('/details')
def pred():
    return render_template('details.html')
```

```
@app.route('/result',methods = ['GET','POST'])
def predict():
    if request.method == "POST":
        f=request.files['image']
        basepath=os.path.dirname(__file__) #getting the current path i.e where app.py is present
        #print("current path",basepath)
        filepath=os.path.join(basepath,'Data','val',f.filename) #from anywhere in the system we can give image but we
        want that image later  to process so we are saving it to uploads folder for reusing
        #print("upload folder is",filepath)
        f.save(filepath)

        a2 = cv2.imread(filepath)
        a2 = cv2.resize(a2,(224,224))
        a2 = np.array(a2)
        a2 = a2/255
        a2 = np.expand_dims(a2, 0)

        pred = model.predict(a2)
        pred = pred.argmax()
```

```
        df_labels = {
            'arborio' : 0,
            'basmati' : 1,
            'ipsala' : 2,
            'jasmine' : 3,
            'karacadag': 4
        }

        for i, j in df_labels.items():
            if pred == j:
                prediction = i

        return render_template('results.html', prediction_text = prediction)


if __name__ == "__main__":
    app.run(debug= True)
```