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1. import numpy as np
2. import sqlite3
3. from keras.models import load_model
4. from keras.utils import load_img, img_to_array
5.
6. def predict(filepath, genus):
7.     conn = sqlite3.connect("Species_data.db")
8.     model = load_model(models(genus))
9.     img = load_img(filepath, target_size=(229, 229))
10.    x = img_to_array(img)
11.    x = np.expand_dims(x, axis=0)
12.    pred = np.argmax(model.predict(x))
13.    cursor = conn.execute(f"SELECT GENUS, CONTENT FROM SPECIESDB WHERE  

    SPECIES=='{genus}' AND ID=='{pred}'")
14.    val = cursor.fetchall()[0]
15.    genus_value = val[0]
16.    content = val[1]
17.    return [genus_value, content]
18.
19. def models(classes):
20.     if classes == "Animals":
21.         return 'models/animals.h5'
22.     elif classes == "Birds":
23.         return 'models/birds.h5'
24.     elif classes == "Leaves":
25.         return 'models/leaves.h5'
26.     elif classes == "Flowers":
27.         return 'models/flowers.h5'
28.     elif classes == "Insects":
29.         return 'models/insects.h5'
30.     elif classes == "Sea Animals":
31.         return 'models/sea.h5'

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