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import os
from os.path import join, splitext, getsize
import cobra # cobra

#
model_dir = "models"

# model_dir
json_files = [
    "Burkholderia.gladioli_10_model.json",
    "Burkholderia.gladioli_11_model.json",
    "Burkholderia.gladioli_12_model.json",
    "Burkholderia.gladioli_13_model.json",
    "Burkholderia.gladioli_14_model.json",
    "Burkholderia.gladioli_15_model.json",
    "Burkholderia.gladioli_16_model.json",
    "Burkholderia.gladioli_17_model.json",
    "Burkholderia.gladioli_18_model.json",
    "Burkholderia.gladioli_19_model.json",
    "Burkholderia.gladioli_1_model.json",
    "Burkholderia.gladioli_20_model.json",
    "Burkholderia.gladioli_21_model.json",
    "Burkholderia.gladioli_22_model.json",
    "Burkholderia.gladioli_23_model.json",
    "Burkholderia.gladioli_2_model.json",
    "Burkholderia.gladioli_3_model.json",
    "Burkholderia.gladioli_4_model.json",
    "Burkholderia.gladioli_5_model.json",
    "Burkholderia.gladioli_6_model.json",
    "Burkholderia.gladioli_7_model.json",
    "Burkholderia.gladioli_8_model.json",
    "Burkholderia.gladioli_9_model.json",
    "Pantoea.dispersa_10_model.json",
    "Pantoea.dispersa_11_model.json",
    "Pantoea.dispersa_12_model.json",
    "Pantoea.dispersa_13_model.json",
    "Pantoea.dispersa_14_model.json",
    "Pantoea.dispersa_15_model.json",
    "Pantoea.dispersa_16_model.json",
    "Pantoea.dispersa_17_model.json",
    "Pantoea.dispersa_18_model.json",
    "Pantoea.dispersa_19_model.json",

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"Pantoea.dispersa_20_model.json",
"Pantoea.dispersa_21_model.json",
"Pantoea.dispersa_22_model.json",
"Pantoea.dispersa_23_model.json",
"Pantoea.dispersa_24_model.json",
"Pantoea.dispersa_25_model.json",
"Pantoea.dispersa_26_model.json",
"Pantoea.dispersa_27_model.json",
"Pantoea.dispersa_28_model.json",
"Pantoea.dispersa_29_model.json",
"Pantoea.dispersa_2_model.json",
"Pantoea.dispersa_3_model.json",
"Pantoea.dispersa_4_model.json",
"Pantoea.dispersa_5_model.json",
"Pantoea.dispersa_6_model.json",
"Pantoea.dispersa_7_model.json",
"Pantoea.dispersa_8_model.json",
"Pantoea.dispersa_9_model.json",
"Pantoea.dispersa_B_model.json",
"Pantoea.dispersa_model.json",
"Pantoea.stewartii_2_model.json",
"Pantoea.stewartii_3_model.json",
"Pantoea.stewartii_4_model.json",
"Pantoea.stewartii_5_model.json",
"Pantoea.stewartii_model.json"
]

#
# "Burkholderia.gladioli" → "Bg", "Pantoea.dispersa" → "Pd", "Pantoea.stewartii" → "Ps"
species_mapping = {
    "Burkholderia.gladioli": "Bg",
    "Pantoea.dispersa": "Pd",
    "Pantoea.stewartii": "Ps"
}

#
counters = {species: 1 for species in species_mapping}

#
models = {}

for json_file in json_files:

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file_path = join(model_dir, json_file)

#
if getsize(file_path) == 0:
    print(f"    : {file_path},    : ")
    continue

try:
    #      JSON
    model = cobra.io.load_json_model(file_path)
except Exception as e:
    print(f"    : {file_path},    : {e}")
    continue

new_key = None
#      Pd_1_model
for species, prefix in species_mapping.items():
    if json_file.startswith(species):
        new_key = f"{prefix}_{counters[species]}_model"
        counters[species] += 1
        break

#
if new_key is None:
    new_key = splitext(json_file)[0]

models[new_key] = model

print("    ")
for key in models:
    print(key)

```

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: models\Burkholderia.gladioli_10_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_11_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_12_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_13_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_14_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_15_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_16_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_17_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_18_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_19_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Burkholderia.gladioli_1_model.json, : Expecting value: line 1 column 1 (char 0)

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: models\Pantoea.stewartii_3_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Pantoea.stewartii_4_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Pantoea.stewartii_5_model.json, : Expecting value: line 1 column 1 (char 0)
: models\Pantoea.stewartii_model.json,   : Expecting value: line 1 column 1 (char 0)
```