Lösung zu Aufgabe 1

```python
import json

with open("countries.json", encoding="UTF-8") as file:
  countries = json.load(file)

for country in countries:
  print(f"{country['capital']} ist die Hauptstadt von {country['name']}")
```

Lösung zu Aufgabe 2

```python
def countries_to_capitals(countries):
  result = []
  for country in countries:
  result.append(country["capital"])
  return result
```

Lösung zu Aufgabe 3

```python
def filter_countries_by_regions(countries, regions):
  result = []
  for country in countries:
    if country["region"] in regions:
      result.append(country)
  return result
```

Lösung zu Aufgabe 4

```python
import random


def shuffle_list(input):
  first = input[0]
  others = []
  for item in input:
    if item != first:
      others.append(item)
  random.shuffle(others)
  result = others[0:3]
  result.append(first)
  random.shuffle(result)
  return result
```