In [2]:
```
import spacy
import sys
import matplotlib.pyplot as plt
from collections import Counter


def extract_categories(text, language):
    """Generates a text and returns the named entities and their categories.

    Args:
        text (str): The path of the textfile we want to find the named entities in.
        language (str): The language of the text.

    Returns:
        A dict with named entities as keys and their categories as values
        and a pie chart for a better visualisation.

    Example:
      >>> extract_categories("John_eats_an_apple.txt", "english")
      {'John': PERS}
    """
    if language == "russian":
        nlp = spacy.load("ru_core_news_sm")
        file_text = open(text, encoding="utf8").read()
        file_doc = nlp(file_text)
    if language == "english":
        nlp = spacy.load("en_core_web_sm")
        file_text = open(text, encoding="utf8").read()
        file_doc = nlp(file_text)
    if language == "german":
        nlp = spacy.load('de_core_news_sm')
        file_text = open(text, encoding="utf8").read()
        file_doc = nlp(file_text)
    categories = {}
    for ent in file_doc.ents:
        categories[ent] = ent.label_
    frequency_of_labels = dict(Counter(categories.values()))
    plt.pie(frequency_of_labels.values(), labels=frequency_of_labels.keys())
    plt.show()
    return categories
```