Definition: An entity is an ORGANISM (all individual life forms such as microorganisms, plants, animals, mammals, insects, fungi, bacteria etc.), PHENOMENA (occurring natural, biological, physical or chemical processes such as decomposition, colonisation, deforestation, as well as events, such as climate change etc.), MATTER (chemical and biological compounds, and natural elements, such as carbon, sediment, sand etc.), ENVIRONMENT (natural and man-made environments organisms live in, such as groundwater, garden, aquarium, mountain etc.), QUALITY (data parameters measured or observed, phenotypes and traits, such as volume, age, structure, morphology etc.), and LOCATION (geographic location such as China, the United States etc.).
Dates, times, and adjectives are not entities.

Named entity categories, definitions, and real-world examples.

Example 1: ['In', 'this', 'dataset', 'EFN-tree-visiting', 'arthropods', 'were', 'collected', 'on', 'all', 'EFN', 'tree', 'species', '(', 'Ailanthus', 'altissima', ',', 'Idesia', 'polycarpa', ',', 'Melia', 'azedarach', ',', 'Triadica', 'sebifera', ',', 'Triadica', 'cochinchinensis', ',', '<', 'b', '>', 'excluding', 'Diospyros', 'japonica', '<', '/b', '>', ')', 'of', 'the', 'main', 'experiment', '(', 'Site', 'A', 'and', 'B', ')', '.']
Answer: [['In', 'O'], ['this', 'O'], ['dataset', 'O'], ['EFN-tree-visiting', 'O'], ['arthropods', 'B-ORGANISM'], ['were', 'O'], ['collected', 'O'], ['on', 'O'], ['all', 'O'], ['EFN', 'O'], ['tree', 'B-ORGANISM'], ['species', 'I-ORGANISM'], ['(', 'O'], ['Ailanthus', 'B-ORGANISM'], ['altissima', 'I-ORGANISM'], [',', 'O'], ['Idesia', 'B-ORGANISM'], ['polycarpa', 'I-ORGANISM'], [',', 'O'], ['Melia', 'B-ORGANISM'], ['azedarach', 'I-ORGANISM'], [',', 'O'], ['Triadica', 'B-ORGANISM'], ['sebifera', 'I-ORGANISM'], [',', 'O'], ['Triadica', 'B-ORGANISM'], ['cochinchinensis', 'I-ORGANISM'], [',', 'O'], ['<', 'O'], ['b', 'O'], ['>', 'O'], ['excluding', 'O'], ['Diospyros', 'B-ORGANISM'], ['japonica', 'I-ORGANISM'], ['<', 'O'], ['/b', 'O'], ['>', 'O'], [')', 'O'], ['of', 'O'], ['the', 'O'], ['main', 'O'], ['experiment', 'O'], ['(', 'O'], ['Site', 'O'], ['A', 'O'], ['and', 'O'], ['B', 'O'], [')', 'O'], ['.', 'O']]

Example 2: ['(', 'LAI', ':', 'Leaf', 'area', 'index', 'measured', 'above', 'the', 'planted', 'seedlings', '(', '1m', 'height', ')', 'in', 'each', 'subplot', ')', 'dimensionless', 'real', 'Leaf', 'Area', 'Index', '(', 'LAI', ')', 'Leaf', 'area', 'index', '(', 'LAI', ')', 'is', 'a', 'dimensionless', 'quantity', 'that', 'characterizes', 'plant', 'canopies', '.']
Answer: [['(', 'O'], ['LAI', 'O'], [':', 'O'], ['Leaf', 'B-QUALITY'], ['area', 'I-QUALITY'], ['index', 'I-QUALITY'], ['measured', 'O'], ['above', 'O'], ['the', 'O'], ['planted', 'B-ORGANISM'], ['seedlings', 'I-ORGANISM'], ['(', 'O'], ['1m', 'O'], ['height', 'B-QUALITY'], [')', 'O'], ['in', 'O'], ['each', 'O'], ['subplot', 'O'], [')', 'O'], ['dimensionless', 'O'], ['real', 'O'], ['Leaf', 'B-QUALITY'], ['Area', 'I-QUALITY'], ['Index', 'I-QUALITY'], ['(', 'O'], ['LAI', 'O'], [')', 'O'], ['Leaf', 'B-QUALITY'], ['area', 'I-QUALITY'], ['index', 'I-QUALITY'], ['(', 'O'], ['LAI', 'O'], [')', 'O'], ['is', 'O'], ['a', 'O'], ['dimensionless', 'O'], ['quantity', 'O'], ['that', 'O'], ['characterizes', 'O'], ['plant', 'B-ENVIRONMENT'], ['canopies', 'I-ENVIRONMENT'], ['.', 'O']]

Example 3: ['means', 'that', 'Anja', 'found', 'this', 'tag', 'on', 'a', 'debris', 'object', 'that', 'might', 'have', 'been', 'tagged', 'by', 'Christian', 'Wirth', ';', 'Datagroup', 'description', ':', 'CSP', 'metal', 'tag', 'number', '(', 'trees', ',', 'woody', 'debris', ')', ';', 'Datagroup', 'description', ':', 'CSP', 'tree', 'individuals', 'were', 'marked', 'mostly', 'with', 'metal', 'tags', 'but', 'also', 'additional', 'tags', 'were', 'used', '.']
Answer: [['means', 'O'], ['that', 'O'], ['Anja', 'O'], ['found', 'O'], ['this', 'O'], ['tag', 'O'], ['on', 'O'], ['a', 'O'], ['debris', 'O'], ['object', 'O'], ['that', 'O'], ['might', 'O'], ['have', 'O'], ['been', 'O'], ['tagged', 'O'], ['by', 'O'], ['Christian', 'O'], ['Wirth', 'O'], [';', 'O'], ['Datagroup', 'O'], ['description', 'O'], [':', 'O'], ['CSP', 'O'], ['metal', 'B-MATTER'], ['tag', 'O'], ['number', 'O'], ['(', 'O'], ['trees', 'B-ORGANISM'], [',', 'O'], ['woody', 'B-ENVIRONMENT'], ['debris', 'O'], [')', 'O'], [';', 'O'], ['Datagroup', 'O'], ['description', 'O'], [':', 'O'], ['CSP', 'O'], ['tree', 'B-ORGANISM'], ['individuals', 'O'], ['were', 'O'], ['marked', 'O'], ['mostly', 'O'], ['with', 'O'], ['metal', 'B-MATTER'], ['tags', 'O'], ['but', 'O'], ['also', 'O'], ['additional', 'O'], ['tags', 'O'], ['were', 'O'], ['used', 'O'], ['.', 'O']]

Examples of the task. The LM is given a list of indices and tokens, and is expected to retrieve the NE instance, NE category, and NE indices.

In this example, the model is presented with 3 random example sentences.

Generate a Python list with annotated tokens from the sentence: ['This', 'system', 'is', 'an', 'important', 'model', 'for', 'understanding', 'how', 'microbial', 'communities', 'degrade', 'plant', 'biomass', 'in', 'natural', 'systems', 'and', 'has', 'direct', 'relevancy', 'for', 'bioenergy', ',', 'given', 'recent', 'interest', 'in', 'cellulosic', 'biofuels', '.'].
The answer should be of the same format as the answers in the examples.
DO NOT HALLUCINATE

Instructions: The LM needs to follow the output guidelines and generate a nested Python list.