

## Appendix: Sample prompt given for the GPT ontology extractor

Find the individuals from a text for the given OWL ontology. You will be given two files one is ontology as a text file, however, this text file contains the ontology in RDF XML format. Then, you will be given a PDF text from which you have to find the classes, individuals with object properties or data properties for the ontology. For example:

Ontology: <<an ontology in RDF/XML format was provided here>>

OWL entities: <<OWL entity explanation here>>

PDF TEXT: “ Rice crop occupied 31 .45 lakh hectares in Punjab with total paddy production of 203.71 lakh tonnes (136.48 lakh tonnes of rice) during 2021-22. The average yield of paddy was 64.78 quintals per hectare (26.22 quintals per acre). Improved Varieties of rice: PR 131 (Adhoc release, 2022): It is a high-yielding, medium maturing and lodging tolerant variety. Its **average plant height** is 111 cm and **matures** in about 110 days after transplanting. It possesses **long slender translucent grains** with high total and head rice recoveries. It **is resistant to** all the **ten pathotypes of bacterial blight pathogen** prevalent in the **Punjab state**. Its **average yield is 31.0** quintals per acre. PR 130 (2022): It is a high-yielding, mid-early and lodging tolerant variety. Its average plant height is 108 cm and it matures in about 105 days after transplanting. It possesses long slender translucent and lustrous grains with high total and head rice recoveries. It is resistant to all the ten pathotypes of bacterial blight pathogen prevalent in the Punjab state. Its average yield is 30.0 quintals per acre.”

Output in the JSON format:

```
""
{
  OntologyAxiom: [
    {
      "INDIVIDUAL": ["PR 131", "rice"]
      "OBJECT_PROPERTY": " isVarietyOf",
      "DOMAIN": "Variety",
      "RANGE": "Crop",
      "AXIOM ": "PR 131 isVarietyOf rice"
      "RELATED_TEXT": "Improved Varieties of rice: PR 131 (Adhoc release, 2022): It is a high-yielding, medium maturing and lodging tolerant variety.
",
    },
    {
      "INDIVIDUAL": ["PR 130", "rice"]
      "OBJECT_PROPERTY": "isVarietyOf ",
      "DOMAIN": "Variety",
      "RANGE": "Crop",
      "AXIOM ": "PR 130 isVarietyOf rice"
      "RELATED_TEXT": " PR 130 (2022): It is a high yielding, mid early and lodging tolerant variety."
    },
    {
      "INDIVIDUAL": ["PR 130", "Punjab"]
      "OBJECT_PROPERTY": "isCultivatedIn",
      "DOMAIN": "Variety",
      "RANGE": "Location",
      "AXIOM ": "PR 130 isCultivatedIn Punjab ",
      "RELATED_TEXT": "Rice crop occupied 31 .45 lakh hectares in Punjab with total paddy production of 203.71 lakh tonnes (136.48 lakh tonnes of
rice) during 2021-22"
    },
    {
      "INDIVIDUAL": ["PR 131", " bacterial blight"]
      "OBJECT_PROPERTY": " isResistantTo ",
      "DOMAIN": "Variety",
      "RANGE": " bacterial blight ",
      "AXIOM ": "PR 131 isResistantTo bacterial blight ",
      "RELATED_TEXT": " It is resistant to all the ten pathotypes of bacterial blight pathogen prevalent in the Punjab state. "
    }
  ]
}
""
```