PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

PREFIX onto: <http://www.semanticweb.org/asifcomputer/ontology/2025/ui\_ux\_automation#>

SELECT ?principle ?context

WHERE {

?principle rdf:type onto:ContrastPrinciple ;

onto:appliesToContext ?context .

# only ENVIRONMENTAL contexts

?context rdf:type onto:EnvironmentalContext .

}

**Viva-Ready Description:**

“Which VisibilityPrinciple are applied in EnvironmentalContext requiring low user attention?”

By modeling each **VisibilityPrinciple** (e.g. Contrast, Emphasis, Balance) and tagging which **EnvironmentalContext** (e.g. “noisy factory floor,” “glare-filled outdoor”) demands low user focus, our automated UI/UX tool can instantly recommend the right visual rules for any scenario.

* **Client Benefit:** As soon as a product brief specifies an environment where users have limited attention, the system runs a SPARQL query against the ontology and returns exactly those visibility principles—such as high contrast ratios or bold emphasis—that guarantee legible, glance-able interfaces.
* **Automation Value:** Designers no longer manually sift through guidelines; they receive a tailored checklist of principles that align with real-world contexts, ensuring rapid, accurate compliance with client requirements.
* **Outcome:** Faster design iterations, built-in contextual adaptability, and clear audit trails showing why each principle was selected for that low-attention environment.