

D2 - Competency Questions

Giulio Billi & Cono Cirone

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Competency Questions List

Group Member: Giulio Billi

1. **Question:** Which outdoor activities in Berlin have a “Free” budget?

- **Rationale:** Verifies the system can filter by the intersection of three distinct parameters (Location, Setting, Budget).
- **Type:** Selection
- **Predicate Arity:** N-ary
- **Relation Type:** Object Property
- **Domain-Independent Elements:** Spatial (“Berlin”)

2. **Question:** Is there any Museum in Munich that operates on Sundays?

- **Rationale:** Verifies the ability to link venues to specific days of the week while filtering by location.
- **Type:** Binary
- **Predicate Arity:** N-ary
- **Relation Type:** Object Property
- **Domain-Independent Elements:** Spatial (“Munich”), Temporal (“Sunday”)

3. **Question:** What is the category of the “Mercedes-Benz Museum”?

- **Rationale:** Verifies that a specific venue is correctly linked to its classification in the taxonomy.
- **Type:** Selection
- **Predicate Arity:** Binary
- **Relation Type:** Object Property
- **Domain-Independent Elements:** None

Group Member: Cono Cirone

4. **Question:** How many indoor Nightlife Venues in Hamburg have a “Medium” budget?

- **Rationale:** Tests the aggregation of specific venue types with budget and location filters.
- **Type:** Counting
- **Predicate Arity:** N-ary
- **Relation Type:** Object Property
- **Domain-Independent Elements:** Spatial (“Hamburg”)

5. **Question:** Which park in Hamburg close after 18:00?

- **Rationale:** Tests the data property logic required for filtering by specific hours. (Day independent)

- **Type:** Selection
- **Predicate Arity:** N-ary
- **Relation Type:** Datatype Property
- **Domain-Independent Elements:** Spatial (“Hamburg”), Temporal (“18:00”, “after”)

6. **Question:** What is the duration of the guided tour “Old Town Walk”?

- **Rationale:** Ensures that the system can display the length of a tour.
- **Type:** Selection
- **Predicate Arity:** Binary
- **Relation Type:** Object Property
- **Domain-Independent Elements:** Temporal

Improvements from previous submission

Addressing the feedback from the first submission, we renamed the **WeatherSuitability** class to **LocationSetting** to better reflect the possible values (Indoor and Outdoor). Consequently, we also updated the relationship with Activity from **hasWeatherSuitability** to **hasLocationSetting**.