

Queries: (These queries are written in a single line in JQuery functions, because to run this on hosted Fuseki on AWS, we needed to have a single line SPARQL queries.)

- 1) Find the trandate where the frequency of the given hours is greater than 100.

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns%23>PREFIX owl:
<http://www.w3.org/2002/07/owl%23>PREFIX rdfs: <http://www.w3.org/2000/01/rdf-
schema%23>PREFIX xsd: <http://www.w3.org/2001/XMLSchema%23>PREFIX sdfc:
<http://www.semanticweb.org/jaypatel/ontologies/2022/10/SDFC%23>SELECT ?tdate
?date ?freq WHERE{      ?trandate a sdfc:TRANDATE .      ?trandate
sdfc:hasPeopleCount ?peoplecount .  ?trandate
sdfc:hasDate ?date .  ?peoplecount sdfc:hasFreq ?freq .      ?trandate
sdfc:hasTranDate ?tdate .      FILTER(?freq > 100 )      }
```

- 2) Find the avg length of stay for the TRANDATE.

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns%23>PREFIX owl:
<http://www.w3.org/2002/07/owl%23>PREFIX rdfs: <http://www.w3.org/2000/01/rdf-
schema%23>PREFIX xsd: <http://www.w3.org/2001/XMLSchema%23>PREFIX sdfc:
<http://www.semanticweb.org/jaypatel/ontologies/2022/10/SDFC%23>SELECT ?tdate
?date ?avgstay WHERE{      ?trandate a sdfc:TRANDATE .      ?trandate
sdfc:hasPeopleCount ?peoplecount .  ?trandate
sdfc:hasDate ?date .  ?peoplecount sdfc:hasFreq ?freq .      ?trandate
sdfc:hasTranDate ?tdate .  ?trandate sdfc:hasAvgLenStay ?avgstay . }
```

- 3) Find the frequency and hour for the given TRANDATE.

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns%23>PREFIX owl:
<http://www.w3.org/2002/07/owl%23>PREFIX rdfs: <http://www.w3.org/2000/01/rdf-
schema%23>PREFIX xsd: <http://www.w3.org/2001/XMLSchema%23>PREFIX sdfc:
<http://www.semanticweb.org/jaypatel/ontologies/2022/10/SDFC%23>SELECT ?tdate
?hour ?freq WHERE{      ?trandate a sdfc:TRANDATE .      ?trandate
sdfc:hasPeopleCount ?peoplecount .  ?trandate
sdfc:hasDate ?date .  ?peoplecount sdfc:hasFreq ?freq .      ?trandate
sdfc:hasTranDate ?tdate .?trandate
sdfc:hasPeopleCount ?peoplecount . ?peoplecount sdfc:hasFreq ?freq . ?trandate
sdfc:hasTranDate ?tdate . ?trandate sdfc:hasHour ?hour }
```

- 4) Find the list of TRANDATE and hours for which the gym is open for a specific TRANDATE.

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns%23>PREFIX owl:
<http://www.w3.org/2002/07/owl%23>PREFIX rdfs: <http://www.w3.org/2000/01/rdf-
schema%23>PREFIX xsd: <http://www.w3.org/2001/XMLSchema%23>PREFIX sdfc:
<http://www.semanticweb.org/jaypatel/ontologies/2022/10/SDFC%23>SELECT ?tranda
te ?hours ?open WHERE{ ?indv a sdfc:TRANDATE . ?indv
sdfc:hasTranDate ?trandate . ?indv sdfc:hasHour ?hours . ?indv
sdfc:isOpen ?open . FILTER(?open=True). }
```

- 5) For the given TRANDATE, find the amount by which prevFreq has grown from prevFreq2.

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns%23>PREFIX owl:
<http://www.w3.org/2002/07/owl%23>PREFIX rdfs: <http://www.w3.org/2000/01/rdf-
schema%23>PREFIX xsd: <http://www.w3.org/2001/XMLSchema%23>PREFIX sdfc:
<http://www.semanticweb.org/jaypatel/ontologies/2022/10/SDFC%23>SELECT ?tranda
te ?prevfrequency ?difference WHERE{ ?indv a sdfc:TRANDATE . ?indv
sdfc:hasTranDate ?trandate . ?indv sdfc:hasPeopleCount ?freq . ?freq
sdfc:hasPrevFreq ?prevfrequency . ?freq sdfc:hasPrevFreq2 ?prevfrequency2 .
BIND(?prevfrequency - ?prevfrequency2 as ?difference) }
```

- 6) Triplets:

```
SELECT ?subject ?predicate ?object WHERE {?subject ?predicate ?object}LIMIT 25
```