

OBACM - SPARQL QUERY

Prefixes:

PREFIX OBACM: <http://ju.se/Ontology-BasedAccessControlModule#>

PREFIX odrl: <http://www.w3.org/ns/odrl/2/>

PREFIX prov: <http://www.w3.org/ns/prov#>

CQ1: What role is assigned to a user?

```
SELECT ?user ?role WHERE {  
  ?user a OBACM:User ;  
  OBACM:hasRole ?role .  
}
```

CQ2: What context is associated with a user?

```
SELECT ?user ?context WHERE {  
  ?user a OBACM:User ;  
  OBACM:hasContext ?context .  
}
```

CQ3: What is the role and context assigned policies?

```
SELECT ?policy ?role ?context WHERE {  
  ?policy a OBACM:AccessControlPolicy ;  
  OBACM:assigneeRole ?role ;  
  OBACM:hasCondition ?context .  
}
```

CQ4: Which access control policies are assigned to assets?

```
SELECT ?policy ?asset WHERE {  
  ?policy a OBACM:AccessControlPolicy ;  
  odrl:permission ?permission .  
  ?permission odrl:target ?asset .  
}
```

CQ5: What permissions does a policy have?

```
SELECT ?policy ?permission WHERE {  
  ?policy a OBACM:AccessControlPolicy ;  
  odrl:permission ?permission .  
}
```

CQ6: What actions does a permission allow?

```
SELECT ?permission ?action WHERE {  
  ?permission a odrl:Permission ;  
  odrl:action ?action .  
}
```

CQ7: Which role is allowed to do what action to which asset?

```
SELECT ?role ?action ?asset WHERE {  
  ?policy a OBACM:AccessControlPolicy ;  
  OBACM:assigneeRole ?role ;  
  odrl:permission ?permission .  
}
```

```

    ?permission odr1:action ?action ;
        odr1:target ?asset .
}

```

CQ8: What types of actions are modelled within OBACM?

```

SELECT DISTINCT ?action WHERE {
    ?permission odr1:action ?action .
}

```

CQ9: Who is the assignee of a specific policy?

```

SELECT ?policy ?assignee WHERE {
    ?policy a OBACM:AccessControlPolicy ;
        odr1:assignee ?assignee .
}

```

CQ10: When does a request start?

```

SELECT ?request ?time WHERE {
    ?request a OBACM:UserRequestAction ;
        prov:startedAtTime ?time .
}

```

CQ11: Which user is responsible for a user request action?

```

SELECT ?request ?user
WHERE {
    ?request OBACM:requestedBy ?user .
}

```

CQ12: Which roles are associated with policy permissions?

```

SELECT DISTINCT ?policy ?role
WHERE {
    ?policy OBACM:assigneeRole ?role .
}

```

CQ13: What assets are being requested in a user action?

```

SELECT DISTINCT ?request ?asset
WHERE {
    ?request OBACM:requestedAsset ?asset .
}

```

CQ14: Which users are affected by a given policy?

```

SELECT DISTINCT ?policy ?user
WHERE {
    ?policy OBACM:assigneeRole ?role .
    ?user OBACM:hasRole ?role .
}

```

CQ15: What was the outcome of a user request?

```

SELECT ?request ?decision
WHERE {
    ?request OBACM:generatedDecision ?decision .
}

```

CQ16: Which action and asset were part of the request?

```

SELECT ?request ?action ?asset
WHERE {

```

```

    ?request OBACM:requestedAction ?action ;
    OBACM:requestedAsset ?asset .
}

```

CQ17: Which user request led to this decision?

```

SELECT ?request ?decision
WHERE {
    ?decision OBACM:generatedDecision ?request .
}

```

CQ18: Which asset is targeted by a permission?

```

SELECT ?permission ?asset
WHERE {
    ?permission odr1:target ?asset .
}

```

CQ19: What types of actions was requested by a user?

```

SELECT ?user ?role ?action
WHERE {
    ?policy odr1:assignee ?user .
    ?user OBACM:hasRole ?role.
    ?policy odr1:permission ?permission.
    ?permission odr1:action ?action .
}

```

CQ20: Which requests involve what action?

```

SELECT ?request ?action
WHERE {
    ?request OBACM:requestedAction ?action .
}

```

CQ21: What contextual credentials does a user possess?

```

SELECT ?user ?context
WHERE {
    ?user OBACM:hasContext ?context .
}

```