**作业1：知识图谱数据模型与查询语言**

**小组成员：\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. 使用Jena Fuseki导入music\_1000\_triples.nt数据集（从智慧树下载），执行课程视频“实战-Jena.mp4”中所演示的所有SPARQL查询，并给出查询结果截图。

**给出music\_1000\_triples.nt数据集导入成功截图：**

(1) 查询1

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

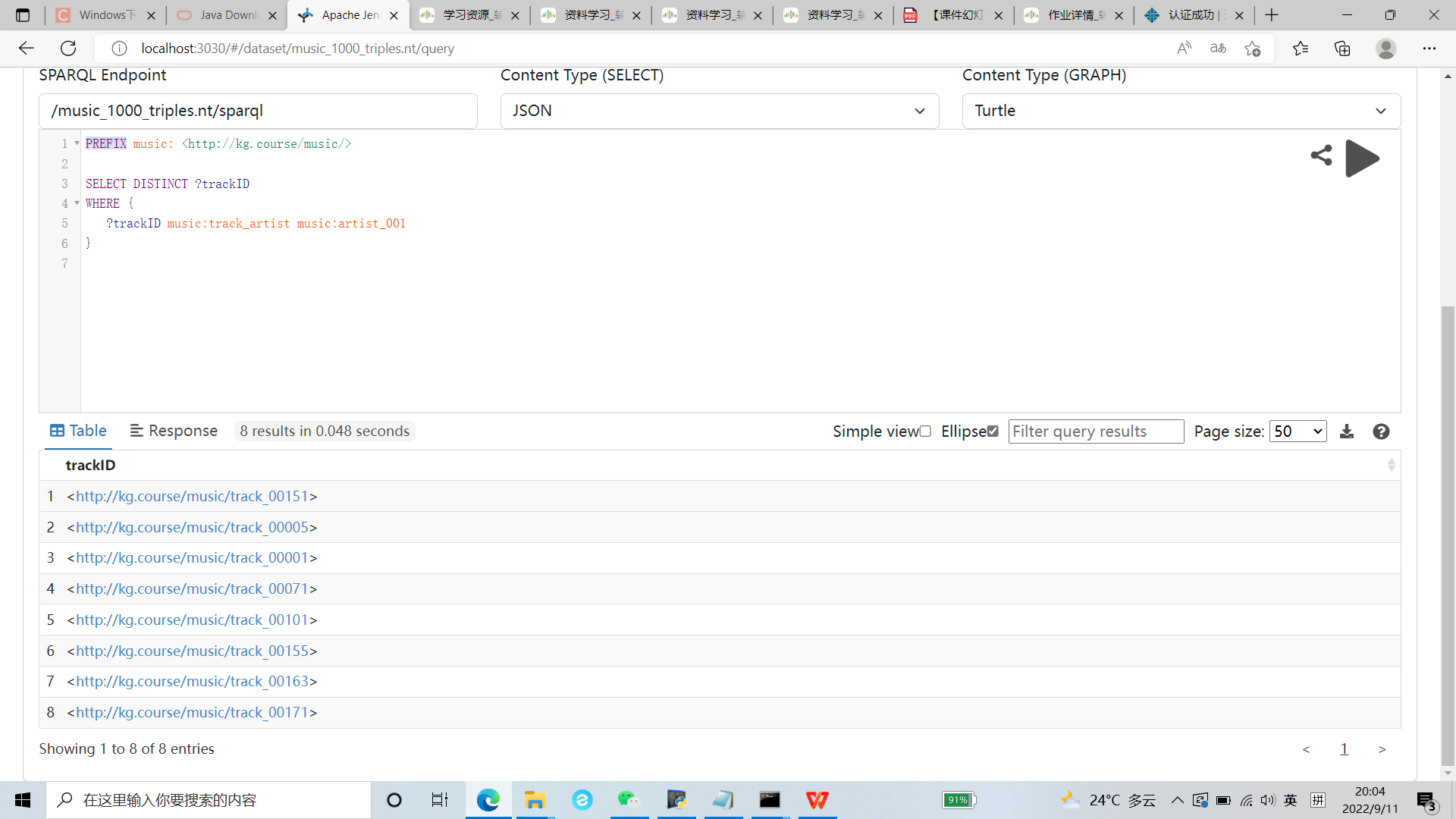
SELECT DISTINCT ?trackID

WHERE {

?trackID music:track\_artist music:artist\_001

}

**查询结果截图：**



(2) 查询2

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT DISTINCT ?trackID ?name

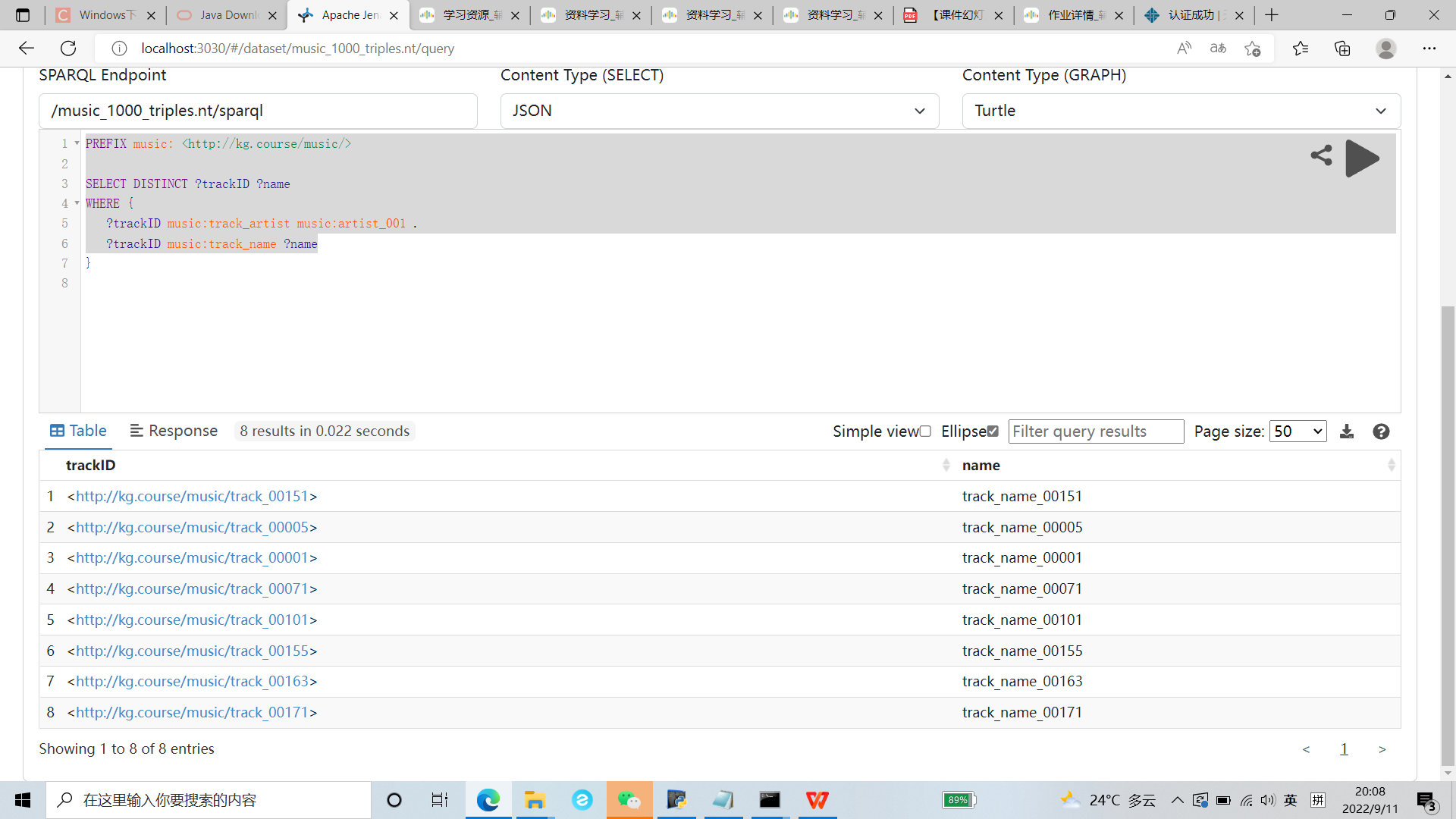
WHERE {

?trackID music:track\_artist music:artist\_001 .

?trackID music:track\_name ?name

}

**查询结果截图：**



(3) 查询3

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?trackID ?albumID ?name

WHERE {

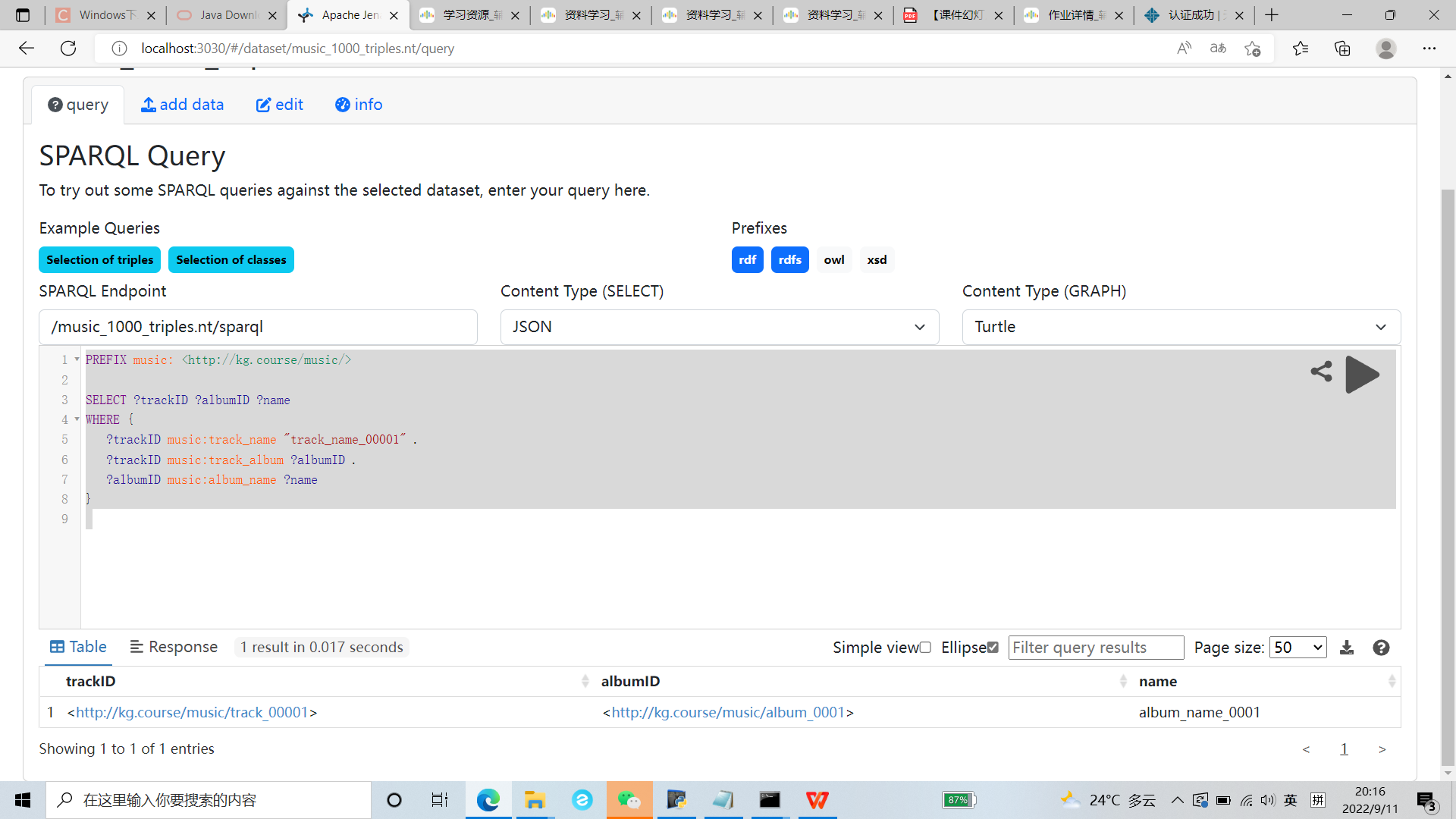
?trackID music:track\_name "track\_name\_00001" .

?trackID music:track\_album ?albumID .

?albumID music:album\_name ?name

}

**查询结果截图：**



(4) 查询4

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?歌曲ID ?专辑ID ?专辑名

WHERE {

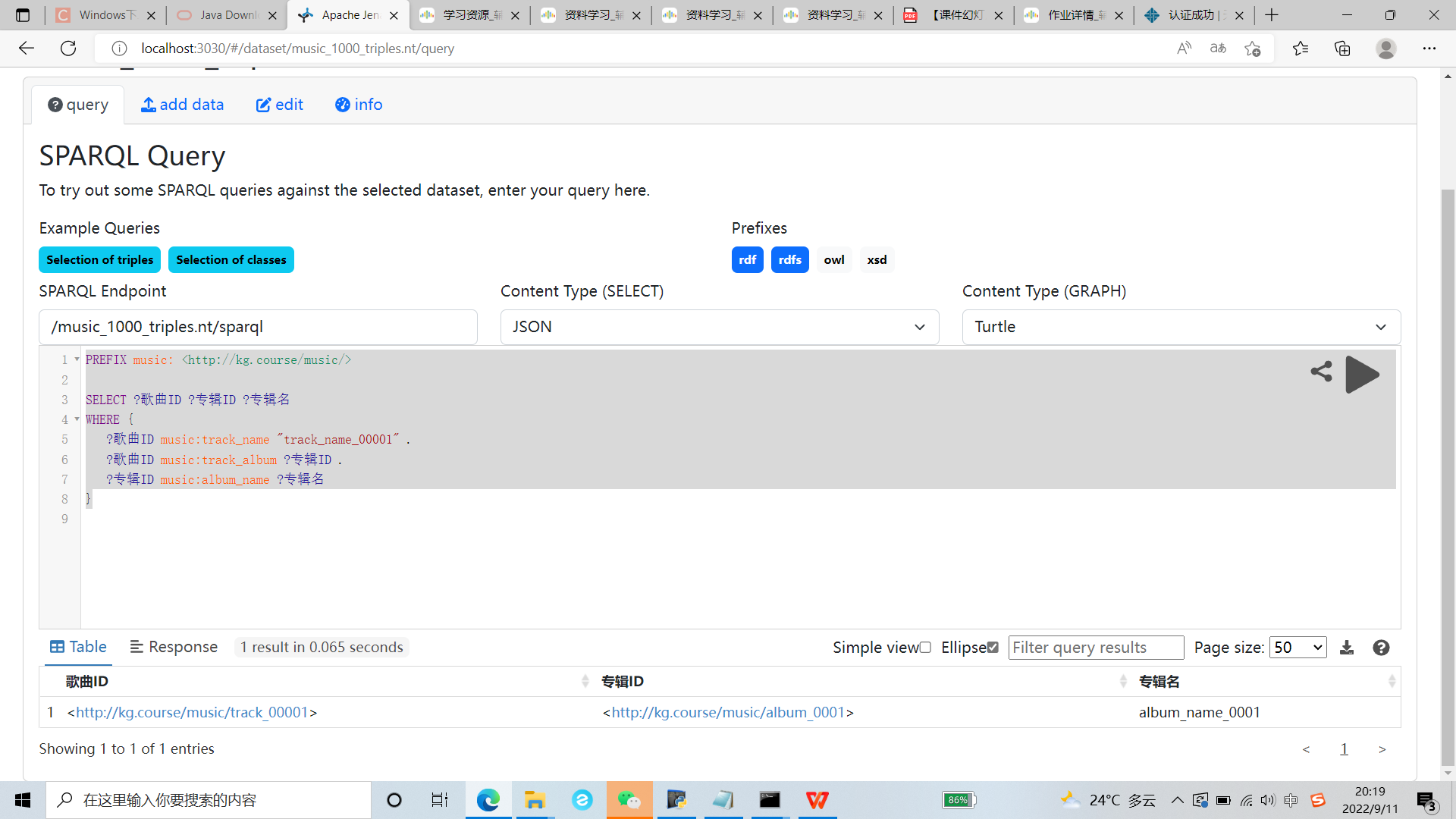
?歌曲ID music:track\_name "track\_name\_00001" .

?歌曲ID music:track\_album ?专辑ID .

?专辑ID music:album\_name ?专辑名

}

**查询结果截图：**



(5) 查询5

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?歌曲ID ?专辑ID (CONCAT ("专辑名", ":", ?专辑名) AS ?专辑信息)

WHERE {

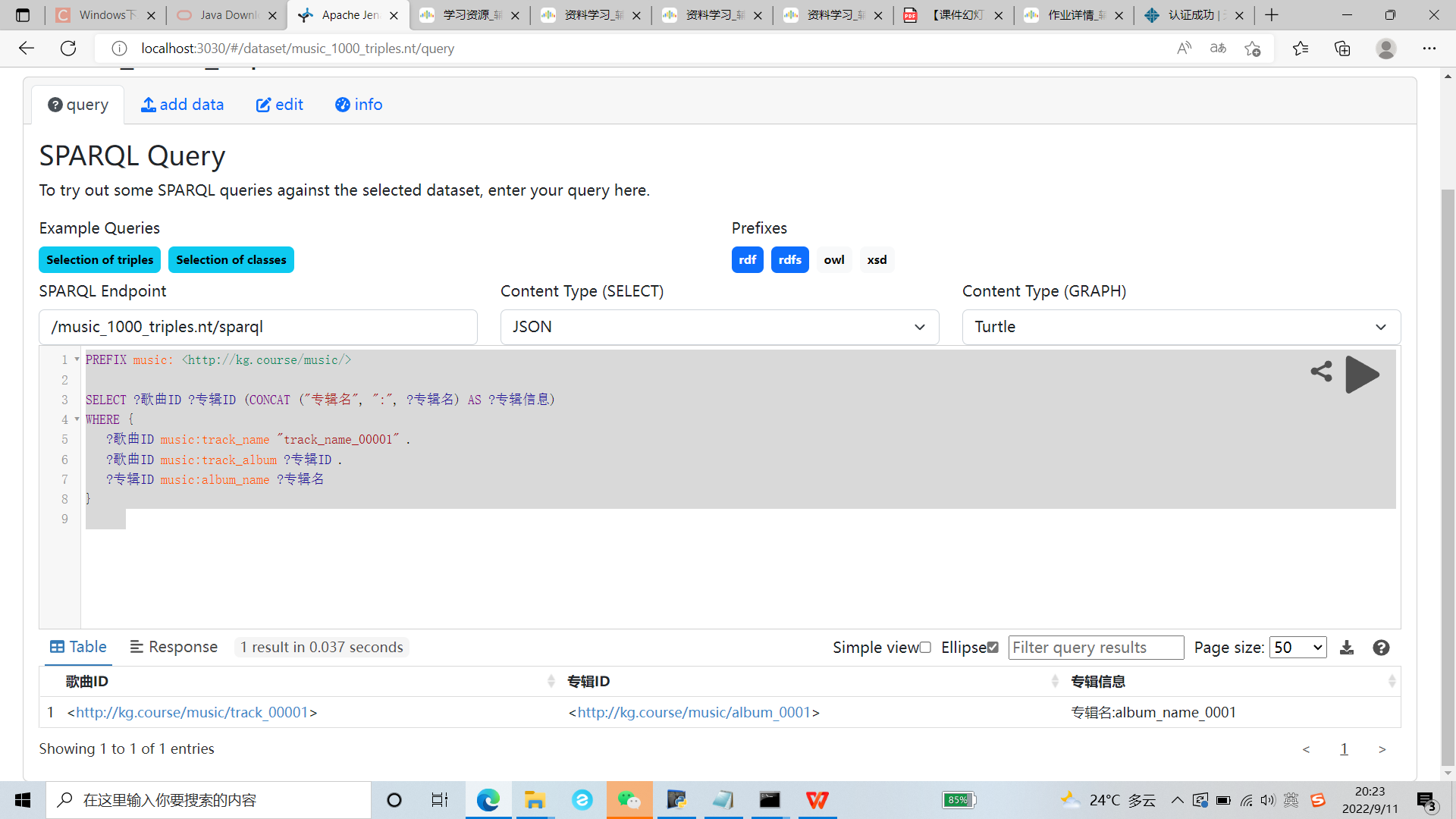
?歌曲ID music:track\_name "track\_name\_00001" .

?歌曲ID music:track\_album ?专辑ID .

?专辑ID music:album\_name ?专辑名

}

**查询结果截图：**



(6) 查询6

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?trackID

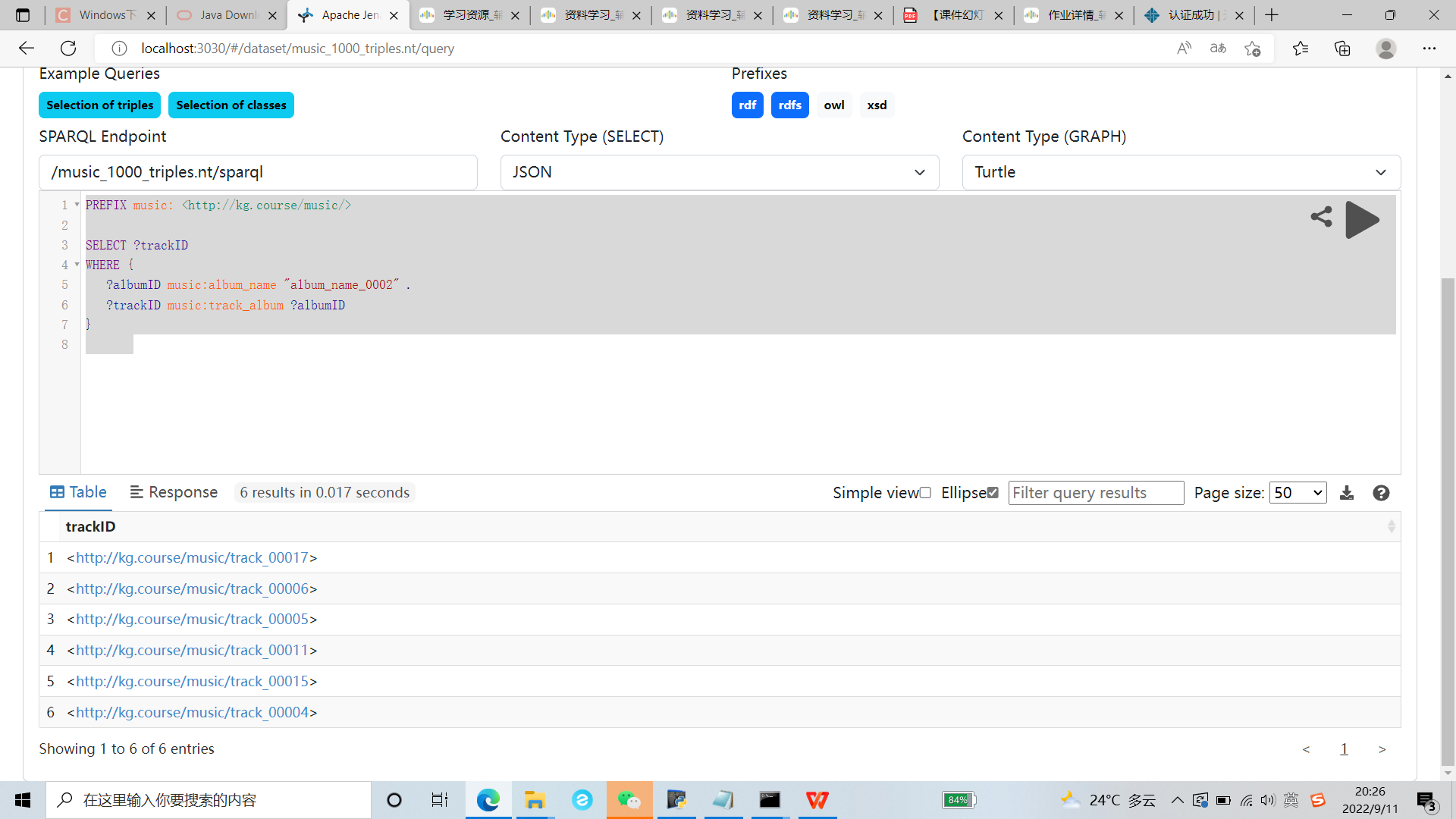
WHERE {

?albumID music:album\_name "album\_name\_0002" .

?trackID music:track\_album ?albumID

}

**查询结果截图：**



(7) 查询7

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?trackID

WHERE {

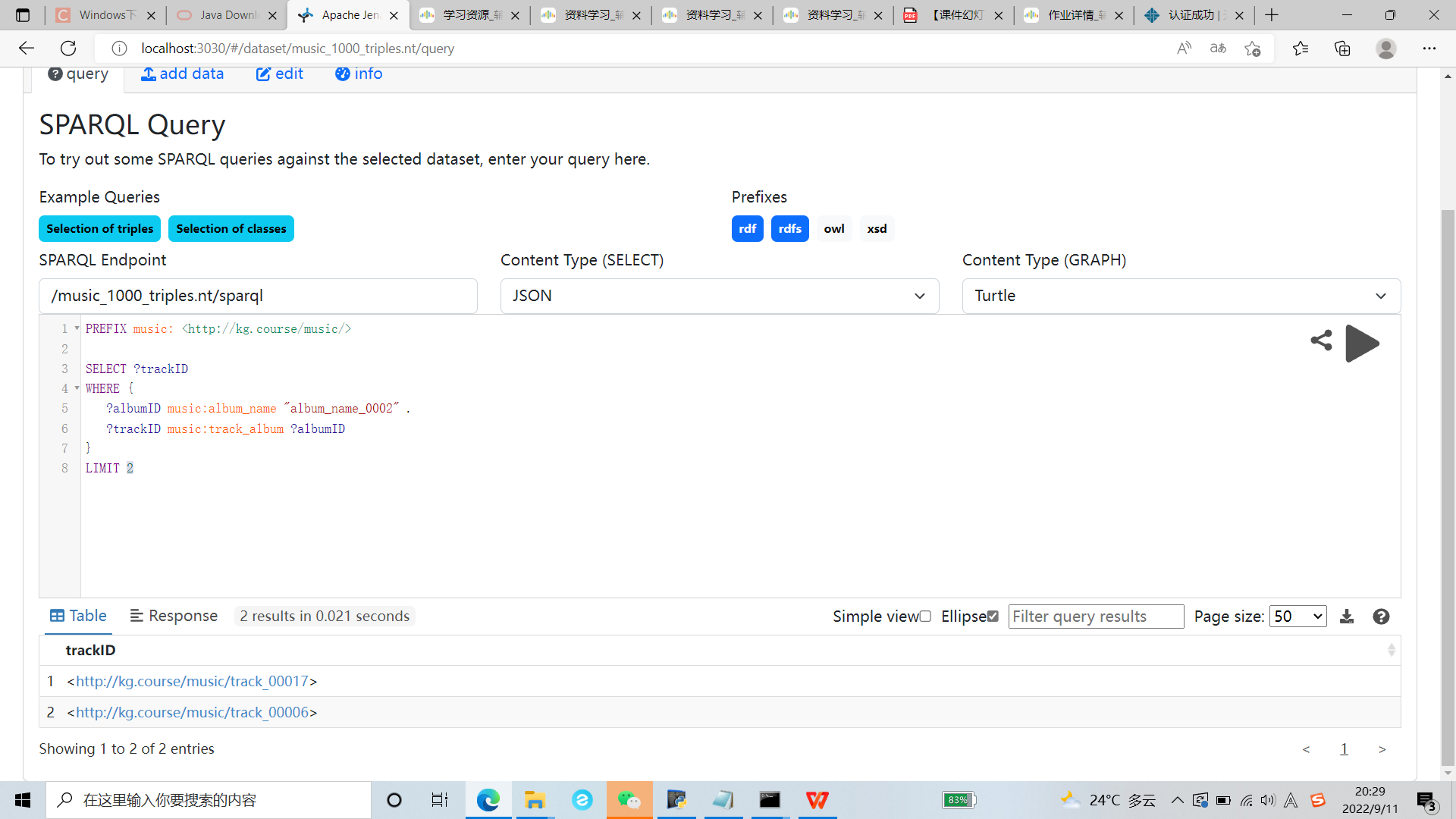
?albumID music:album\_name "album\_name\_0002" .

?trackID music:track\_album ?albumID

}

LIMIT 2

**查询结果截图：**



(8) 查询8

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT (COUNT(?trackID) AS ?num)

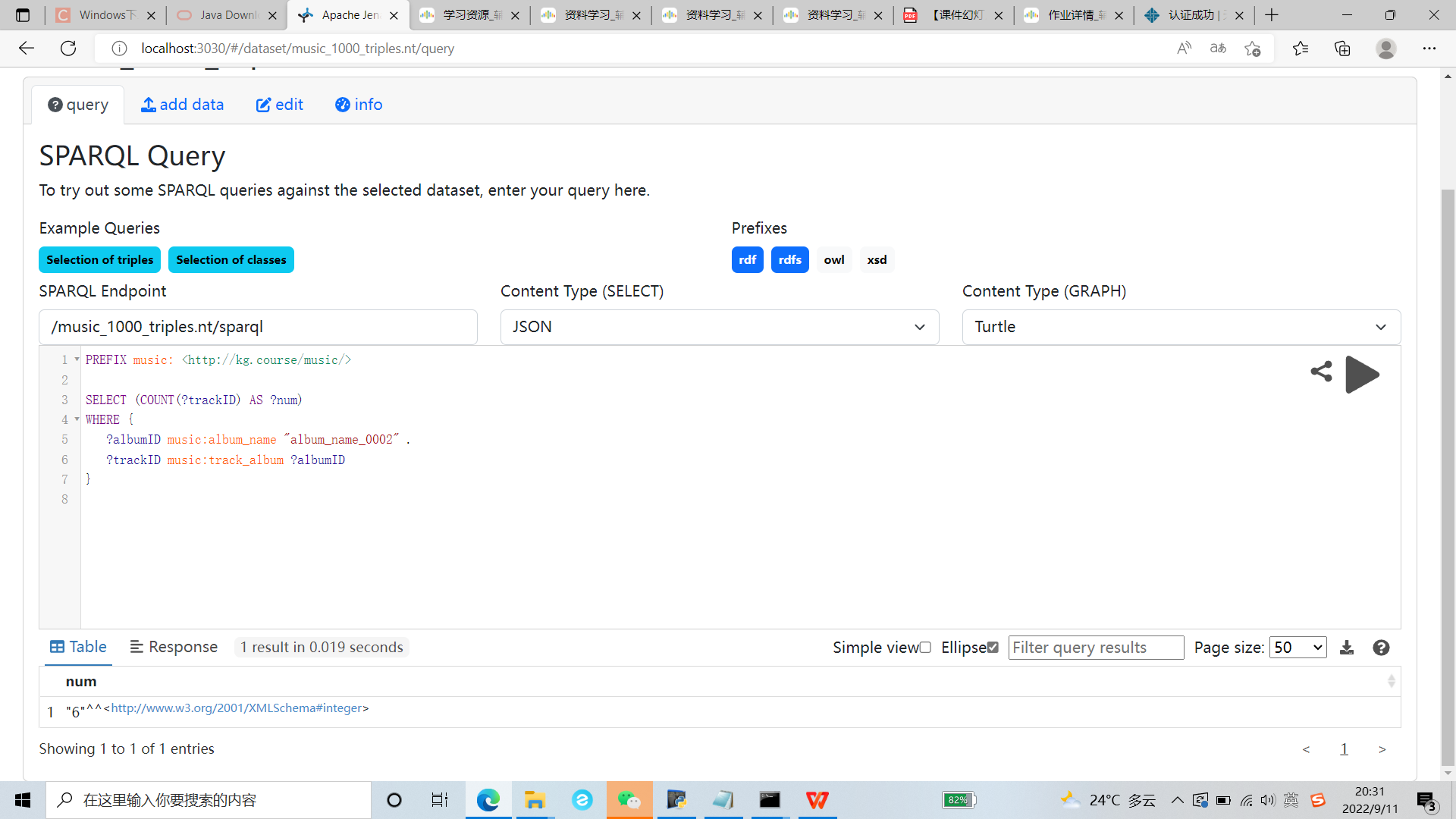
WHERE {

?albumID music:album\_name "album\_name\_0002" .

?trackID music:track\_album ?albumID

}

**查询结果截图：**



(9) 查询9

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?trackID ?artistID

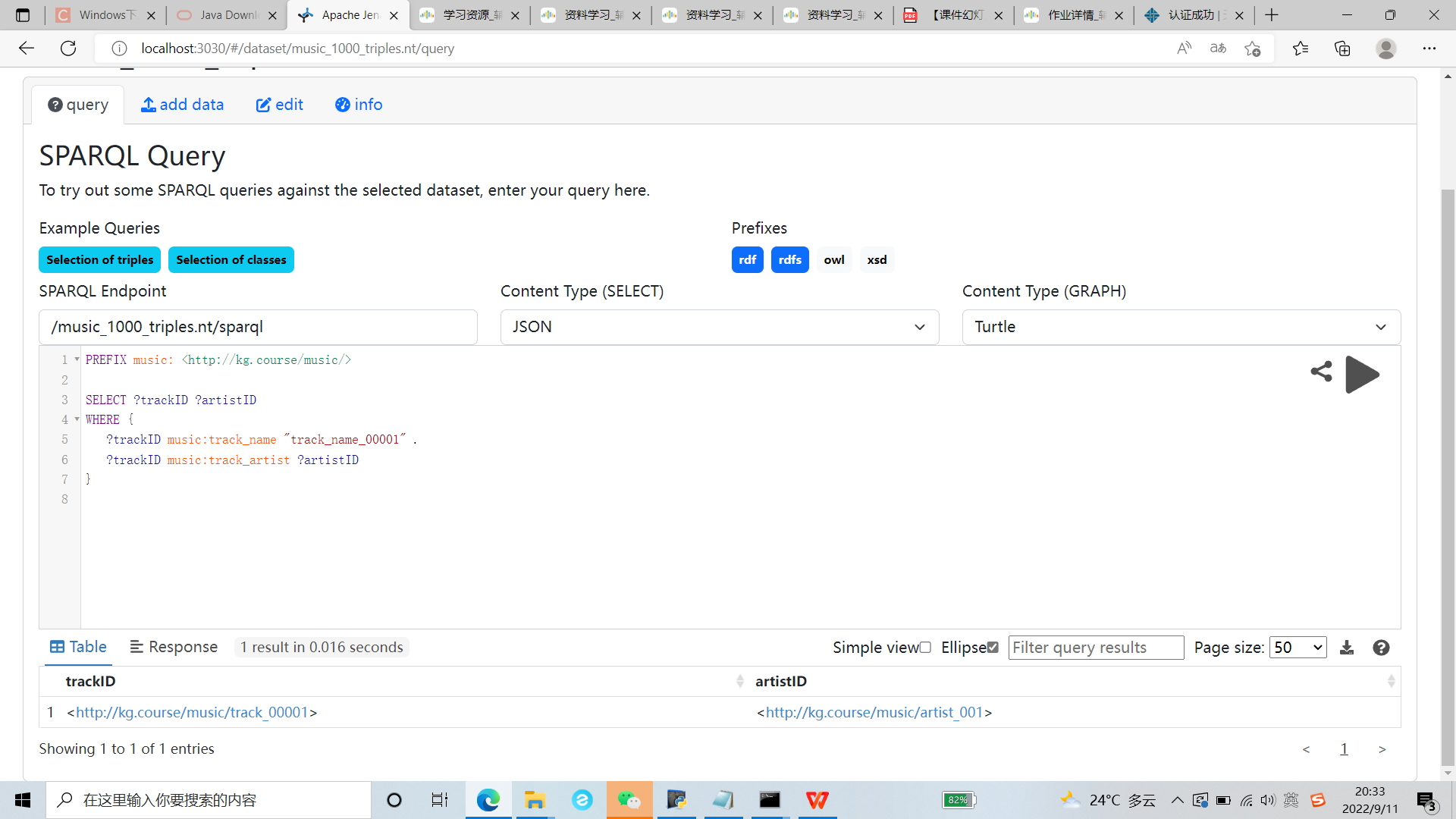
WHERE {

?trackID music:track\_name "track\_name\_00001" .

?trackID music:track\_artist ?artistID

}

**查询结果截图：**



(10) 查询10

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?trackID ?tag\_name

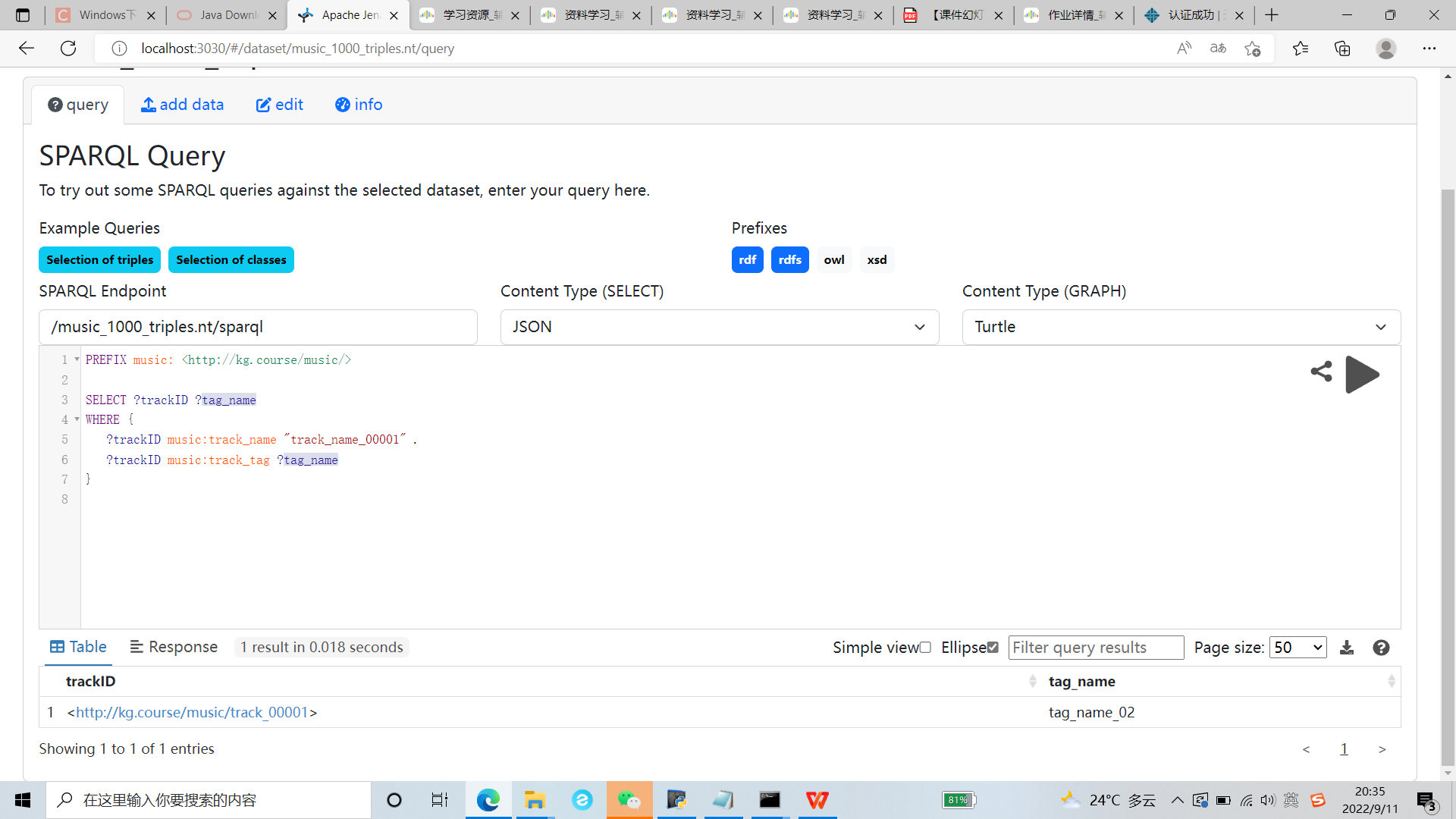
WHERE {

?trackID music:track\_name "track\_name\_00001" .

?trackID music:track\_tag ?tag\_name

}

**查询结果截图：**



(11) 查询11

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT ?tag\_name

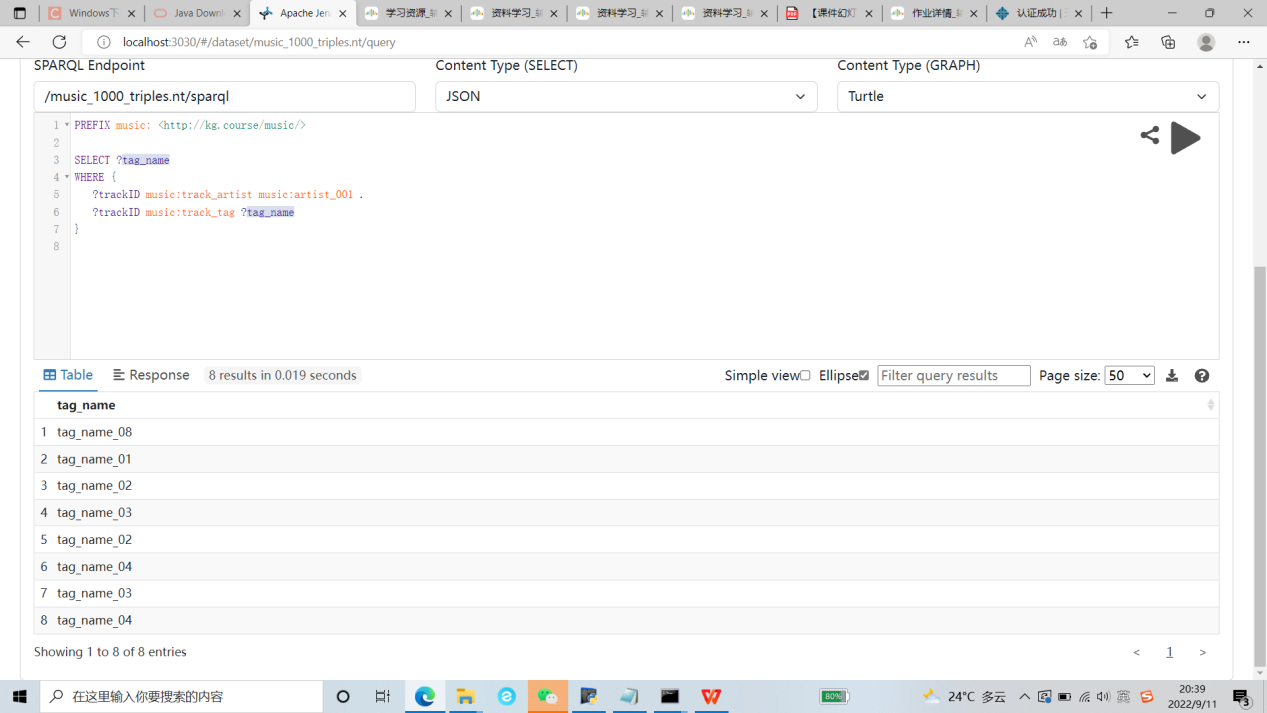
WHERE {

?trackID music:track\_artist music:artist\_001 .

?trackID music:track\_tag ?tag\_name

}

**查询结果截图：**



(12) 查询12

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT DISTINCT ?tag\_name

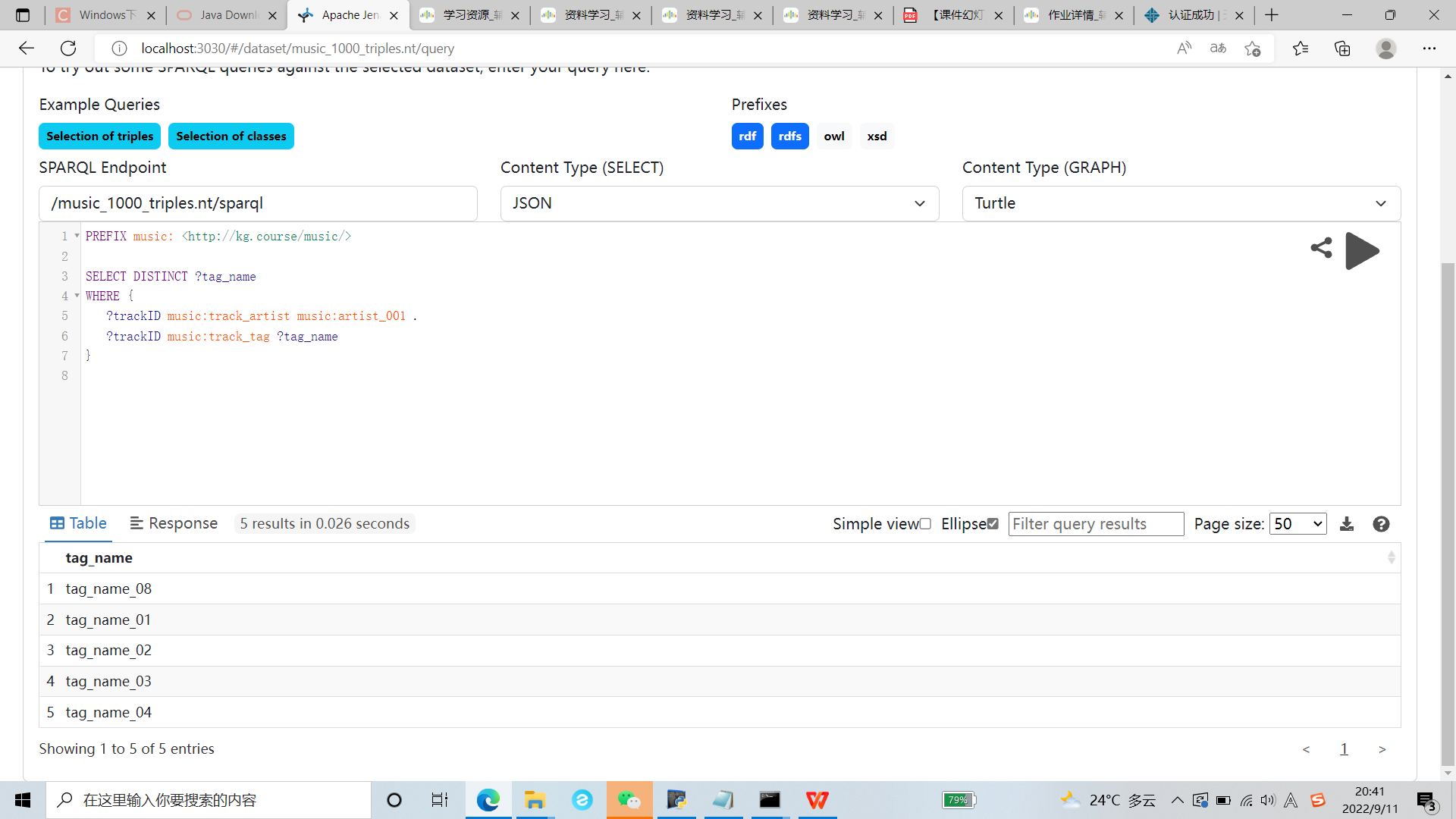
WHERE {

?trackID music:track\_artist music:artist\_001 .

?trackID music:track\_tag ?tag\_name

}

**查询结果截图：**



(13) 查询13

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT DISTINCT ?tag\_name

WHERE {

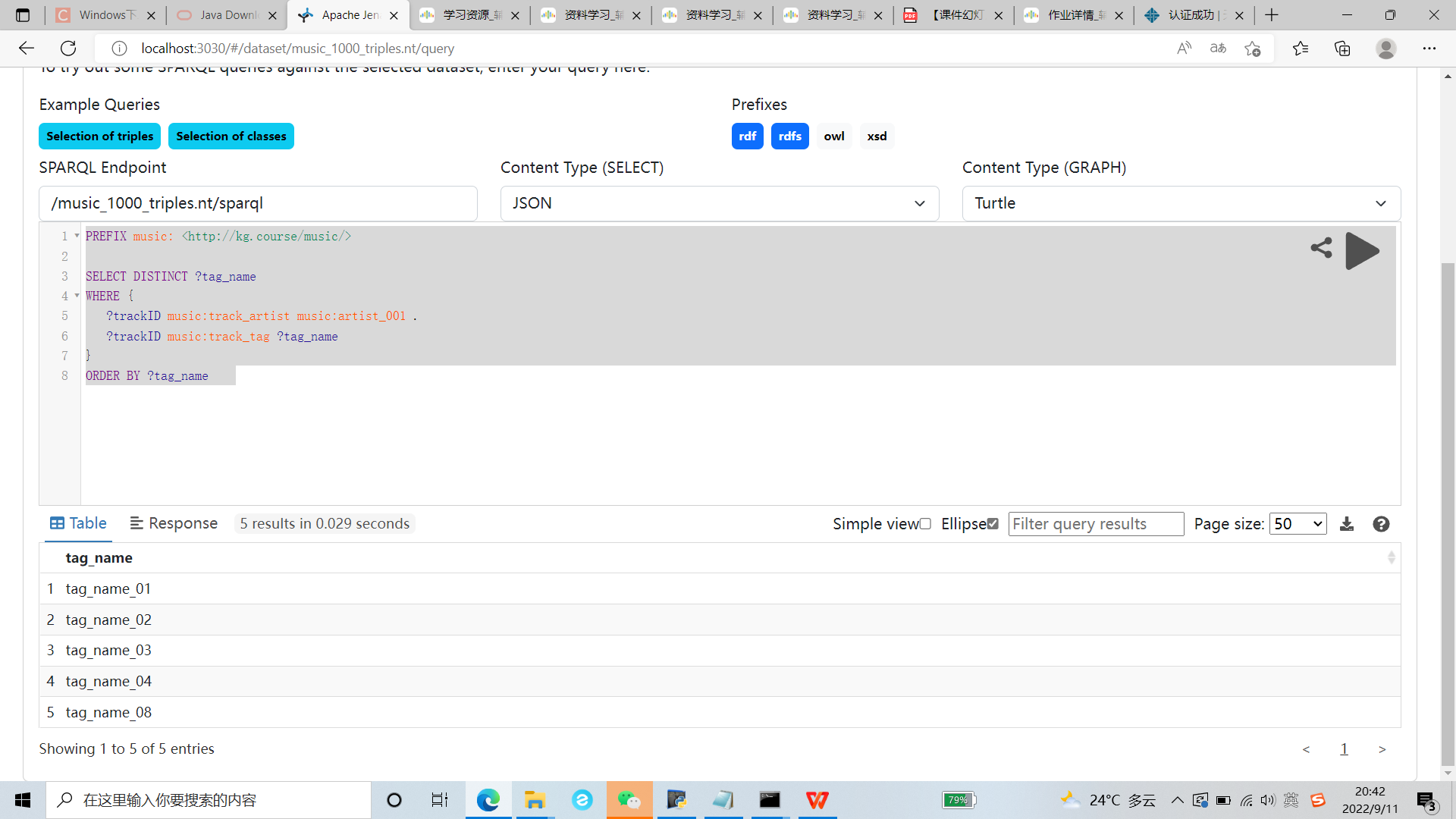
?trackID music:track\_artist music:artist\_001 .

?trackID music:track\_tag ?tag\_name

}

ORDER BY ?tag\_name

**查询结果截图：**



(14) 查询14

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT DISTINCT ?tag\_name

WHERE {

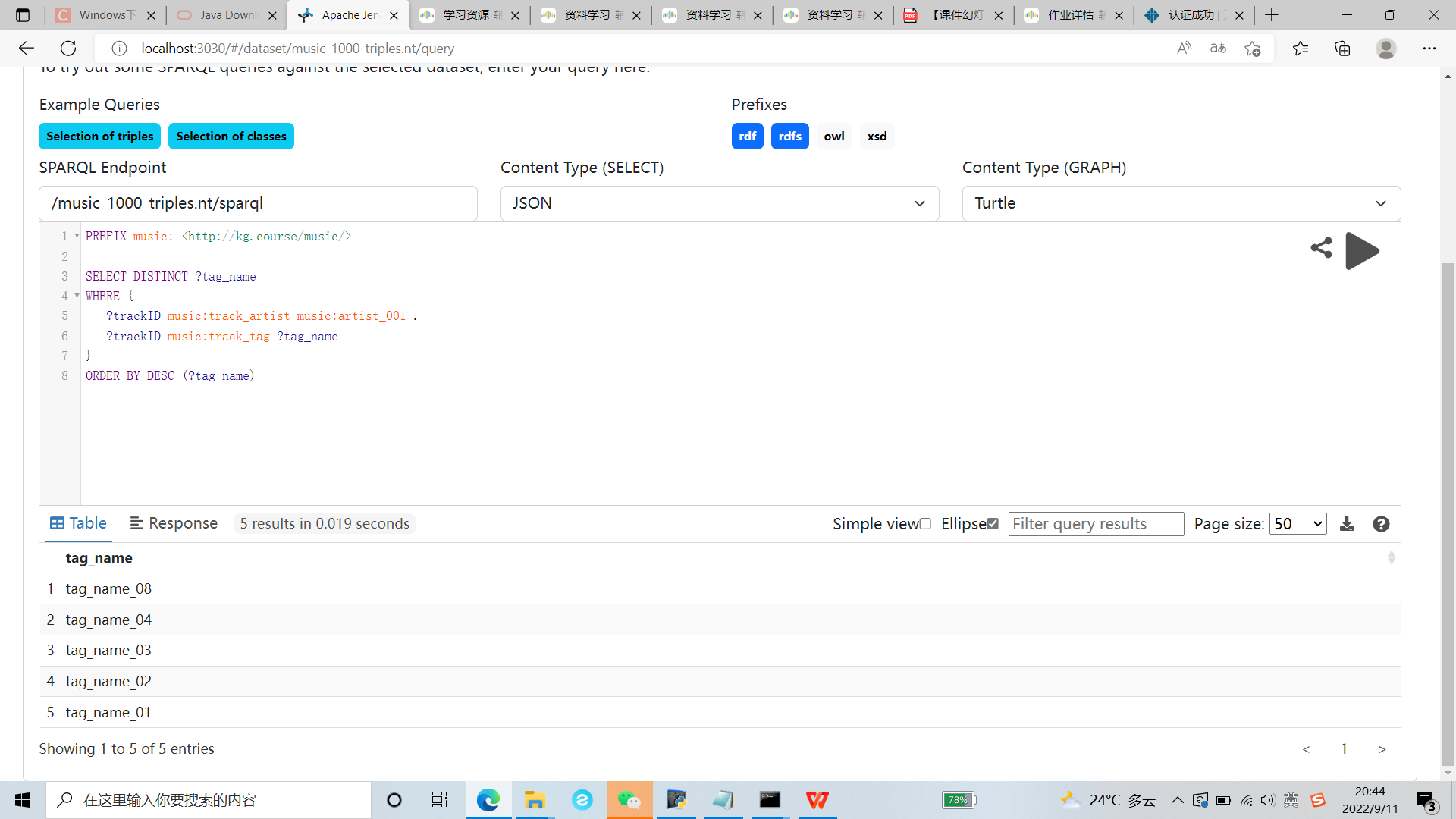
?trackID music:track\_artist music:artist\_001 .

?trackID music:track\_tag ?tag\_name

}

ORDER BY DESC (?tag\_name)

**查询结果截图：**



(15) 查询 15

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT (COUNT(?trackID) AS ?num)

WHERE {

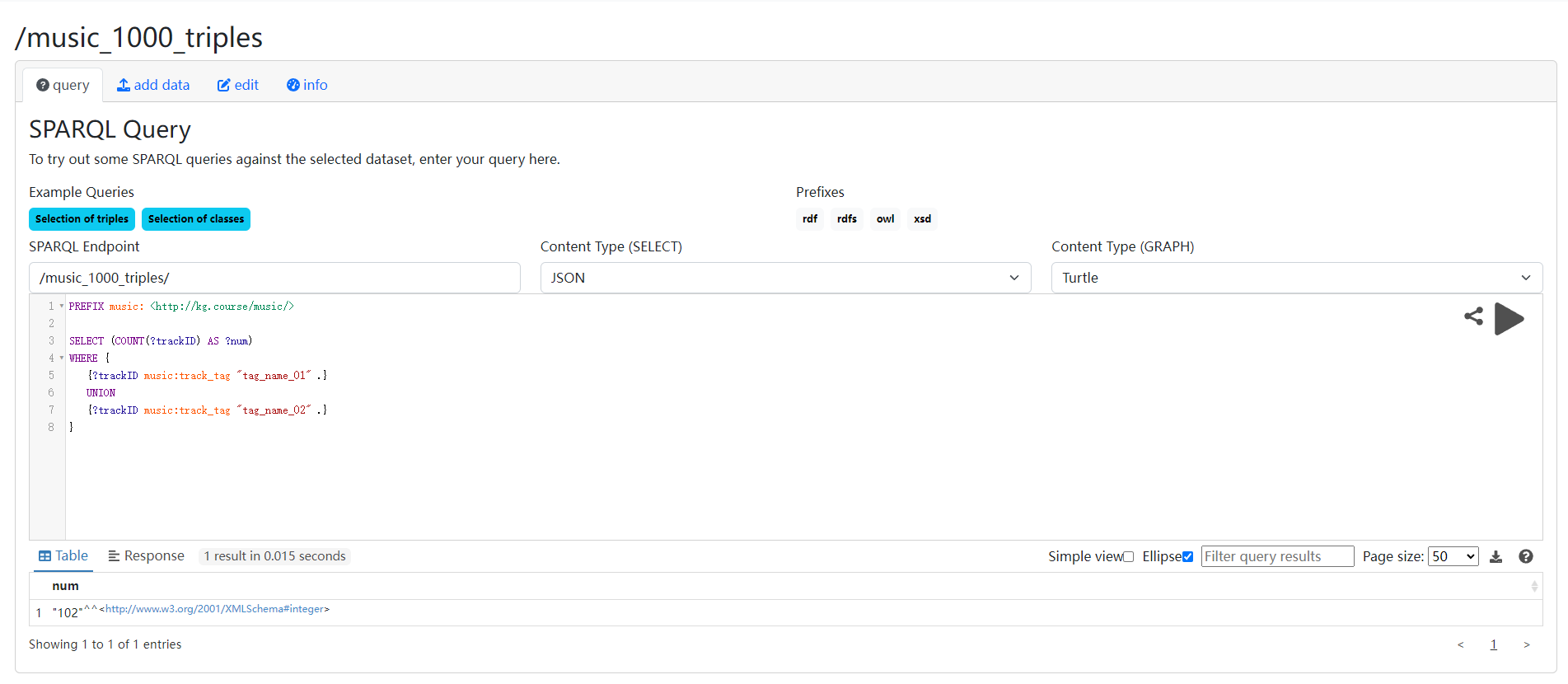
{?trackID music:track\_tag "tag\_name\_01" .}

UNION

{?trackID music:track\_tag "tag\_name\_02" .}

}

**查询结果截图：**



(16) 查询16

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

SELECT (COUNT(?trackID) AS ?num)

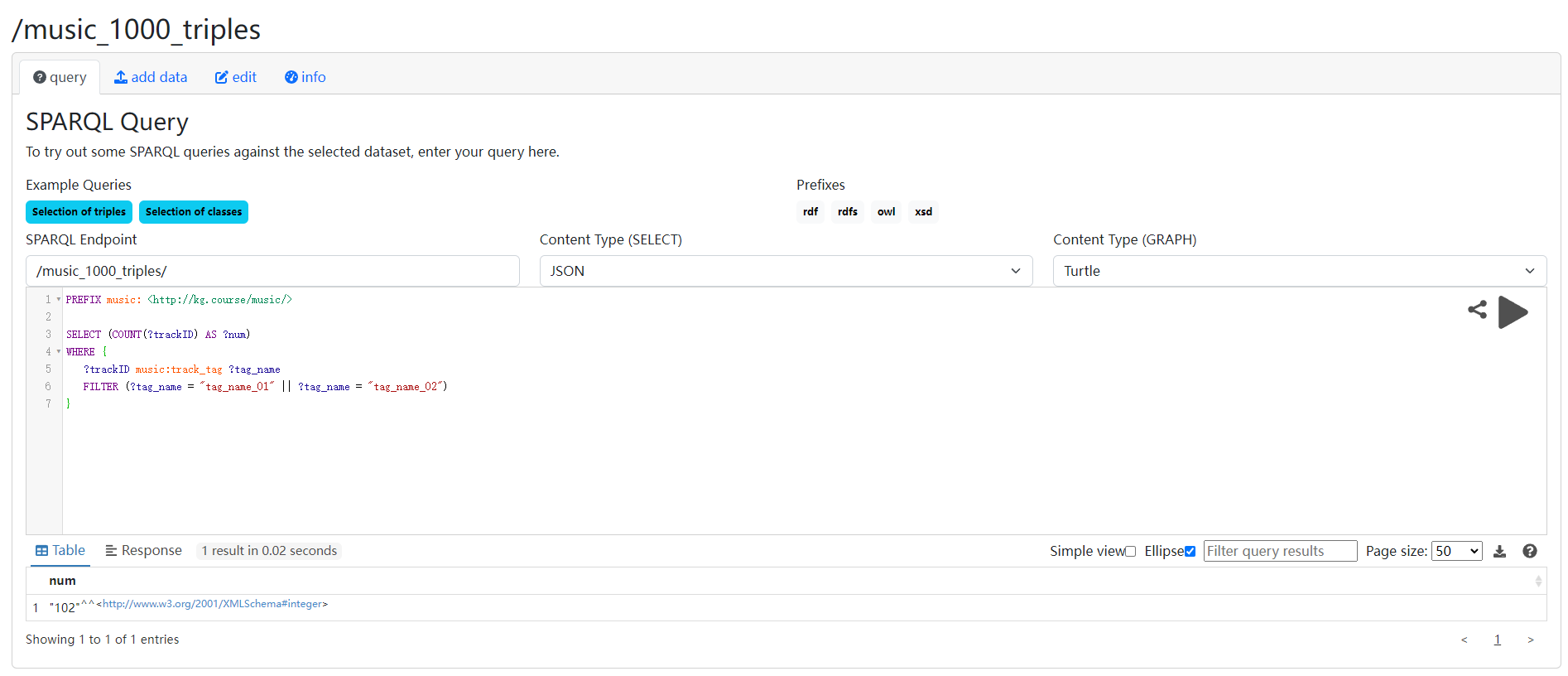
WHERE {

?trackID music:track\_tag ?tag\_name

FILTER (?tag\_name = "tag\_name\_01" || ?tag\_name = "tag\_name\_02")

}

**查询结果截图：**



(17) 查询17

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

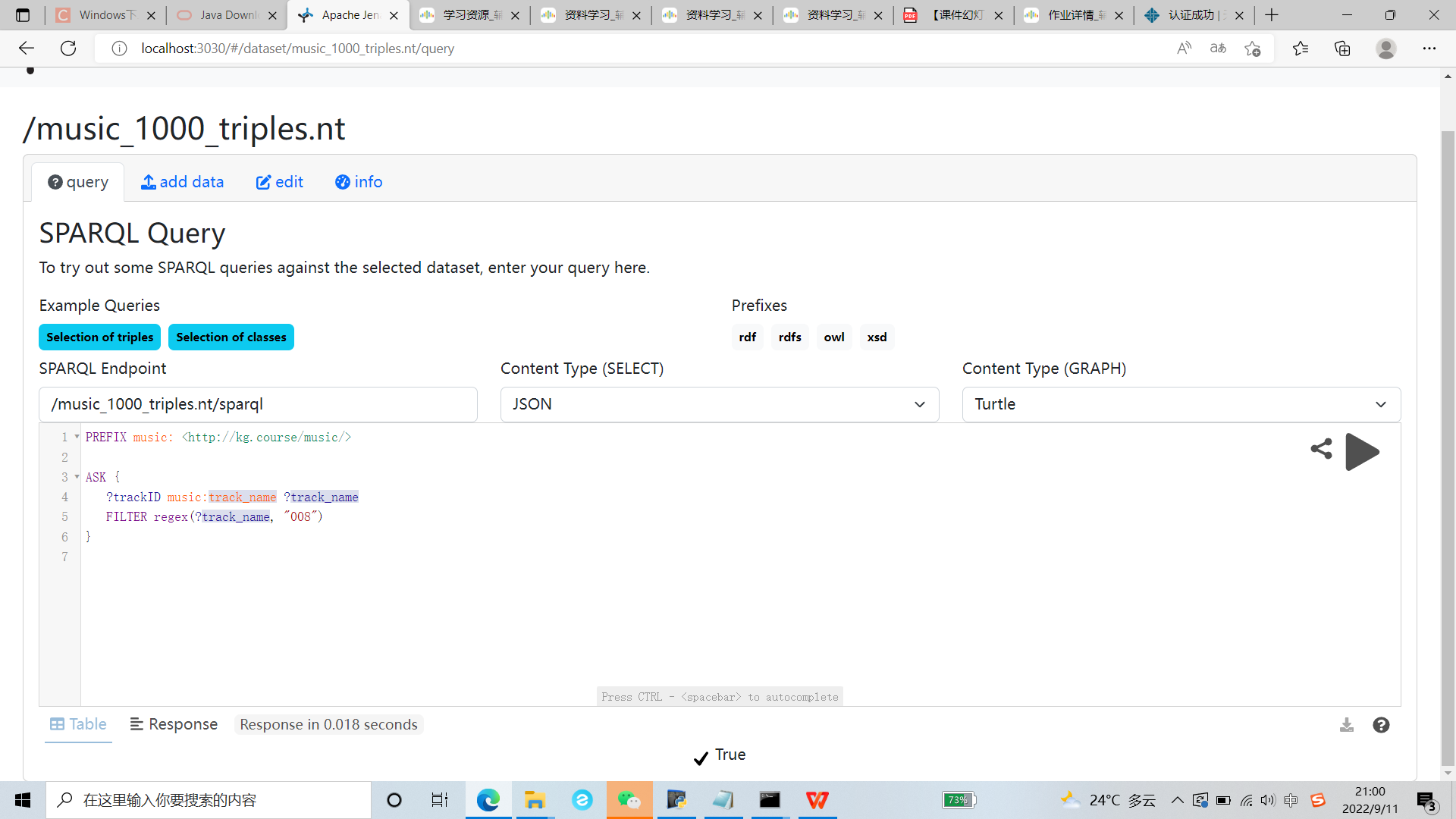
ASK {

?trackID music:track\_tag ?track\_name

FILTER regex (?track\_name, "008")

}

**查询结果截图：**



(18) 查询18

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

INSERT DATA {

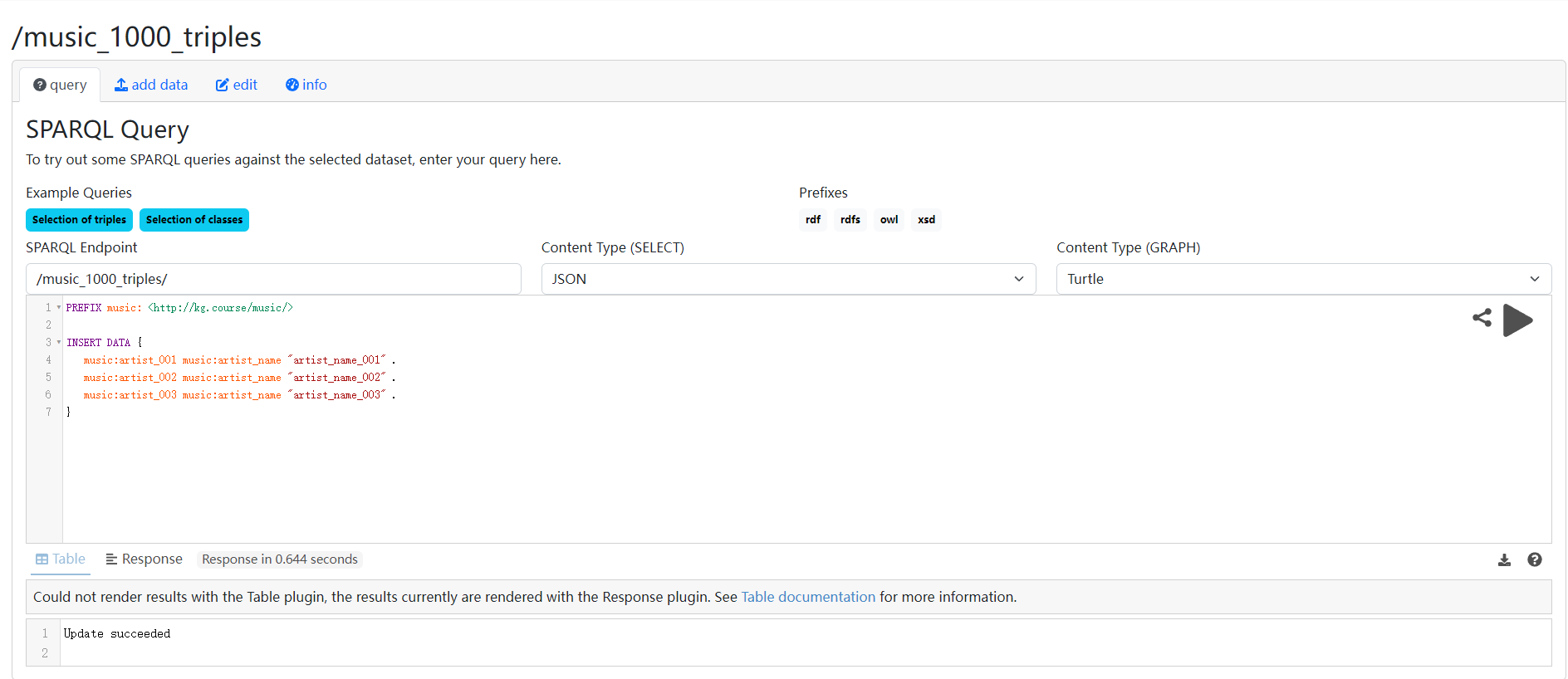
music:artist\_001 music:artist\_name "artist\_name\_001" .

music:artist\_002 music:artist\_name "artist\_name\_002" .

music:artist\_003 music:artist\_name "artist\_name\_003" .

}

**查询结果截图：**



(19) 查询19

**SPARQL语句：**

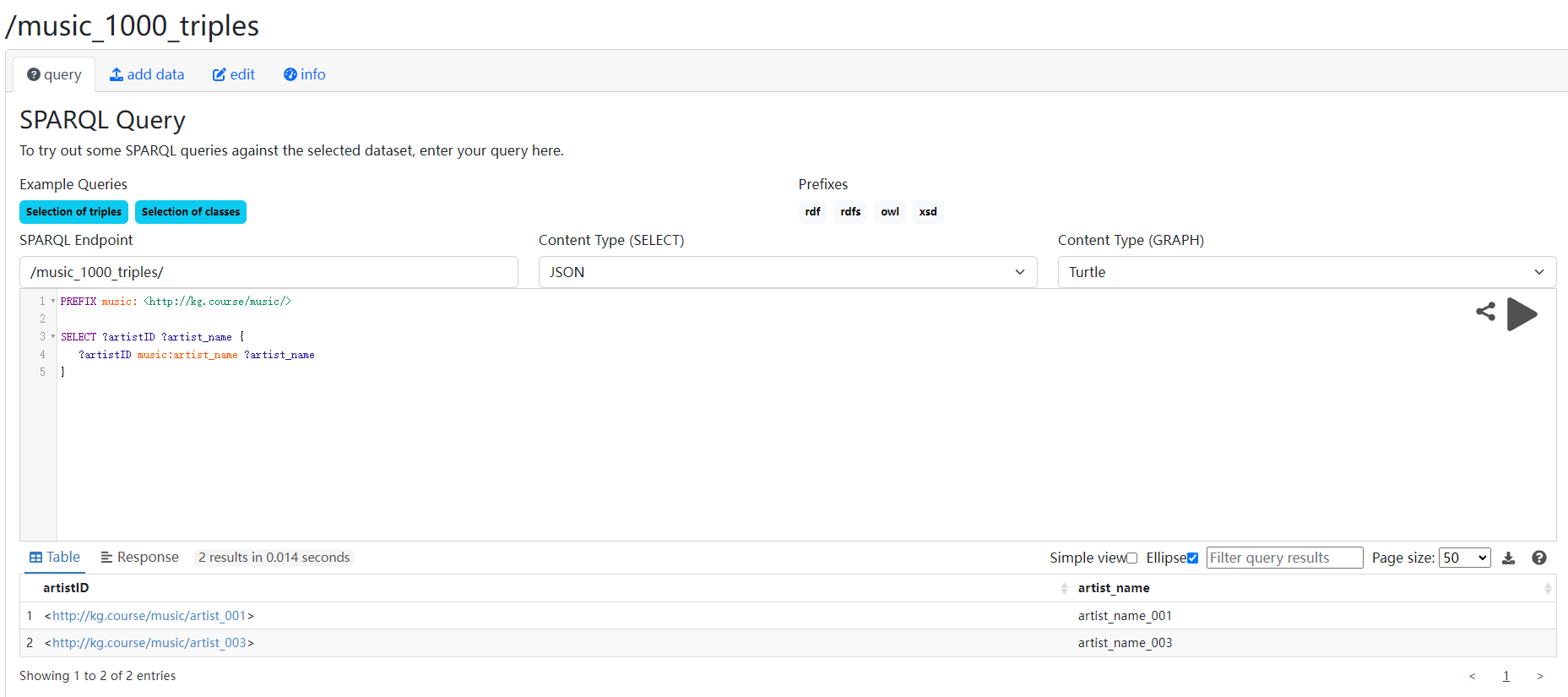
PREFIX music: <http://kg.course/music/>

SELECT ?artistID ?artist\_name {

?artistID music:artist\_name ?artist\_name

}

**查询结果截图：**



(20) 查询20

**SPARQL语句：**

PREFIX music: <http://kg.course/music/>

DELETE {

music:artist\_002 music:artist\_name ?x .

}

WHERE{

music:artist\_002 music:artist\_name ?x .

}

**查询结果截图：**

