DBIntro Project Report
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Campsite data from Recreation.gov, the Recreation Information Database (RIDB) was used for this project. RIDB was created to share data from Recreation.gov, a collaboration between 12 federal agencies to provide recreational information and reservations to the public. Recreation.gov has been the best way to reserve good camping spots in my experience. RIDB provides this data freely as a set of .csvs and I was able to relatively easily download and start copying it into my own database.

Each .csv became a table in my database, listed here with the with number of rows:

Activities: 128
CampsiteAttributes: 1,880,123
Campsites: 102,950
EntityActivities: 62,745
Facilities: 14,074
FacilityAddresses: 16,392
Links: 61,119
Organizations: 29
OrgEntities: 17,524
PermitEntranceAttributes: 590
PermitEntrances: 985
PermitEntranceZones: 399
PermittedEquipment: 341,607
RecAreaAddresses: 4,046
RecAreaFacilities: 21,937
RecAreas: 3,760
TourAttributes: 1,827
Tours: 346

Primary keys and foreign keys were set for many of the more commonly queried tables. Data types for columns were altered and data was cleaned to facilitate use of foreign keys and theta joins. The questions asked for the project fell within three categories: finding campgrounds with certain amenities within Oregon and Washington, gathering information for one of these types of campgrounds that would be useful for someone wanting to choose one to make a reservation, and queries about the data as a whole. Here are the questions and results:

First, find campgrounds “within Oregon and Washington” (within the bounds of Longitude 117 - 125W, Latitude 42 - 49N) with certain amenities.

1. What are the campground names, addresses, latitude, longitude of campgrounds with accessible campsites within the latitude and longitudes that generally bound Oregon and Washington?
   Answer: There are 102 campgrounds with accessible campsites. Results are here.

   Here’s the code:

```
-- 1. What are the campground names, addresses, latitude, longitude
of campgrounds
--  with accessible campsites within the latitude and longitudes
that generally
-- bound Oregon and Washington?

-- Change some datatypes in the tables to allow joins.
-- set the facilityID column in campsites to match the data type in
facilities table
alter table w21adb31.campsites
alter column facilityid
set data type varchar(200);

-- set the facilityID column in facilityaddresses to match type in
facilities
alter table w21adb31.facilityaddresses
alter column facilityid
set data type varchar(200);

-- check that all campsite facilityIDs are in the facilities table
select facilityid
from w21adb31.campsites
where facilityid not in(
   select facilityid
   from w21adb31.facilities
);

-- There are 7690 campsites within Oregon and Washington
select campsitelatitude, campsitelongitude
from w21adb31.campsites
where campsitelatitude > 42
and campsitelatitude < 49
```

```
and campsitelongitude > -124
and campsitelongitude < -117;

-- There are 102 accessible campgrounds within Oregon and Washington
select distinct on (facilityid) facilityid
from w21adb31.campsites
where campsitelatitude > 42
and campsitelatitude < 49
and campsitelongitude > -124
and campsitelongitude < -117
and campsiteaccessible = true;

-- This includes their IDs, names, lat, long, and address of the
accessible campgrounds
select distinct on (F.facilityid) F.facilityid, F.facilityname,
F.facilitylatitude, F.facilitylongitude, FA.facilitystreetaddress1,
FA.facilitystreetaddress2, FA.city, FA.addressstatecode,
FA.postalcode
into accessiblecampgrounds
from w21adb31.facilities F join facilityaddresses FA
on F.facilityid = FA.facilityid
where F.facilityid in(
   select distinct on (facilityid) facilityid
   from w21adb31.campsites
   where campsitelatitude > 42
   and campsitelatitude < 49
   and campsitelongitude > -124
   and campsitelongitude < -117
   and campsiteaccessible = true
);

-- There are 102 in this table as well.
select * from accessiblecampgrounds;
```

2. What are names and addresses of campgrounds with yurts within Oregon and Washington?

Answer: There are four campgrounds with yurts in Oregon and Washington in the database.

4 rows returned

	facilityid character varying	facilityname character varying	facilitylatitude real	facilitylongitude real	facilitystreetaddress1 character varying	facilitystreetaddress2 character varying	city character varying	addressstatecode character varying	postalcode character varying
1	232788	LINK CREEK	44.415833	-121.75528	P.O. BOX 249	*null*	SISTERS	97759	OR
2	232838	LOST CREEK	45.381943	-121.83444	MT. HOOD	*null*	*null*	*null*	OR
3	232839	FISH CREEK (OR)	45.15889	-122.151665	*null*	*null*	*null*	*null*	OR
4	233384	COHO CAMPGROUND	47.458057	-123.60222	Hood Canal Ranger District, PO Box 280	*null*	Quilcene	98376	WA

The query code:

```
-- 2. What are neame and addresses of campgrounds with yurts within
-- Oregon and Washington?
-- Answer: There are 10 yurt campsites in Oregon and Washington
select *
from w21adb31.campsites
where campsitetype = 'YURT'
and campsitelatitude > 42
and campsitelatitude < 49
and campsitelongitude > -124
and campsitelongitude < -117;

-- There are four campgrounds with yurt campsites in Oregon and
Washington
-- This gives their names and locations
select distinct on (F.facilityid) F.facilityid, F.facilityname,
F.facilitylatitude, F.facilitylongitude, FA.facilitystreetaddress1,
FA.facilitystreetaddress2, FA.city, FA.addressstatecode,
FA.postalcode
from w21adb31.facilities F join facilityaddresses FA
on F.facilityid = FA.facilityid
where F.facilityid in(
   select distinct on (facilityid) facilityid
   from w21adb31.campsites
   where campsitelatitude > 42
   and campsitelatitude < 49
   and campsitelongitude > -124
   and campsitelongitude < -117
   and campsitetype = 'YURT');
```

3. What are names, addresses, descriptions, and count of campgrounds with walk-in campsites within Oregon and Washington?

Answer: There are 15 campgrounds with campsites with “walk to” access.

15 rows returned

	facilityid character varying	facilityname character varying	facilitylatitude real	facilitylongitude real	facilitystreetaddress1 character varying	facilitystreetaddress2 character varying	city character varying	addressstatecode character varying	postalcode character varying
1	232838	LOST CREEK	45.381943	-121.83444	MT. HOOD	*null*	*null*	*null*	OR
2	233364	NORTH WALDO	43.758057	-122.00389	FS Rd 5895 at Waldo Lake	*null*	Oakridge	97463	OR
3	233384	COHO CAMPGROUND	47.458057	-123.60222	Hood Canal Ranger District, PO Box 280	*null*	Quilcene	98376	WA
4	233499	FISHHOOK PARK	46.315	-118.76611	4562 FISHHOOK PARK ROAD	*null*	PRESCOTT	99348	WA
5	233536	LEPAGE PARK	45.728397	-120.65126	PO BOX 823	*null*	Rufus	97050	OR
6	233877	La Wis Wis Campground	46.67389	-121.587776	*null*	*null*	Packwood	98361	WA
7	233973	SQUAW LAKES	42.123055	-123.125	FOREST ROAD 1075	15111 Upper Applegate Road	JACKSONVILLE	97530	OR
8	234020	COUGAR FLAT	46.916943	-121.23361	*null*	*null*	NACHES	98610	WA
9	234022	SAWMILL FLAT CAMPGROUND	46.974445	-121.095276	Hwy 410	*null*	NACHES	98937	WA
10	250985	Yakima River Canyon Campgrounds	46.799442	-120.46139	BLM WENATCHEE FIELD OFFICE	915 WALLA WALLA AVENUE	Wenatchee	98801	WA
11	251365	FALLS CREEK CAMPGROUND	47.43	-123.78139	353 South Shore Road PO box 9	*null*	Quinault	98575	WA
12	251577	ALLEN SPRINGS CAMPGROUND	44.52803	-121.62734	PO BOX 249	*null*	SISTERS	97759	OR
13	255135	SOUTHSHORE AT DETROIT LAKE	44.7054	-122.176186	P.O. Box 340	*null*	Detroit	97342	OR
14	255201	Colonial Creek South Campground	48.689583	-121.09606	810 State Route 20	*null*	Sedro-woolley	98284	WA
15	267552	RIVERSIDE CAMPGROUND	44.45509	-121.638374	P.O. BOX 249	*null*	SISTERS	97759	OR

The code:

```
-- What are names and addresses of campgrounds with walk-to access
-- within Oregon and Washington?
-- Answer: There are 15 of them.
-- This includes their IDs, names, lat, long, and address
select distinct on (F.facilityid) F.facilityid, F.facilityname,
F.facilitylatitude, F.facilitylongitude, FA.facilitystreetaddress1,
FA.facilitystreetaddress2, FA.city, FA.addressstatecode,
FA.postalcode
from w21adb31.facilities F join facilityaddresses FA
on F.facilityid = FA.facilityid
where F.facilityid in(
   select distinct on (facilityid) facilityid
   from w21adb31.campsites
   where campsitelatitude > 42
   and campsitelatitude < 49
   and campsitelongitude > -124
   and campsitelongitude < -117
   and campsitetype = 'WALK TO');
```

4. What are the names, addresses, descriptions, and count of campgrounds in Oregon and Washington that have waterfront access (including beach, riverfront, or lakefront)?

Answer: There are 177 campgrounds with waterfront access. Results are here.

Query code:

```
-- 4. What are the names, addresses, descriptions, and count of
campgrounds
-- in Oregon and Washington that have waterfront access (including
beach,
-- riverfront, or lakefront)?
-- There are 11 unique values associated with attribute value where
attribute
-- name is 'Proximity to Water'
select distinct on (AttributeValue) attributeID, AttributeValue
from w21adb31.campsiteattributes
where AttributeName = 'Proximity to Water';

-- Confirming the query above
select distinct on (attributevalue) attributevalue
from w21adb31.campsiteattributes
where attributeID = 72;

-- CampsiteAttributes crashes the system so this limits to just the
entries
-- for proximity to water and campsites
-- 12484 rows returned
select attributevalue, entityid as campsiteid
into waterproximityonly
from w21adb31.campsiteattributes
where attributeID = 72
and entitytype = 'Campsite';

-- Both these queries return 11445 rows/campsites with waterfront
access
select * from WaterProximityOnly
where attributevalue = 'Riverfront'
or attributevalue = 'Island'
or attributevalue = 'Island,'
or attributevalue = 'Lakefront'
or attributevalue = 'Lakefront,Riverfront'
or attributevalue = 'Lakefront,Riverfront,Oceanfront'
```

```
or attributevalue = 'Oceanfront'
or attributevalue = 'Springs'
or attributevalue = 'Riverfront,Springs';

select * from waterproximityonly
where attributevalue != 'N/A';

-- There are 1420 overnight campsites with waterfront access in
Oregon and Washington
-- This lists the campground name, campsite type, type of use, and
type of waterfront access
select F.facilityname, A.campsitetype, A.typeofuse, A.attributevalue
from (campsites C join waterproximityonly WPO on C.campsiteid =
WPO.campsiteid) A
join facilities F on A.facilityID = F.facilityID
where A.attributevalue != 'N/A'
and A.typeofuse = 'Overnight'
and A.campsitelatitude > 42
and A.campsitelatitude < 49
and A.campsitelongitude > -124
and A.campsitelongitude < -117;

-- There are 177 campgrounds with campsites with waterfront access
in Oregon and Washington
-- This lists names and locations
select distinct on (F.facilityid) F.facilityname,
F.facilitylatitude, F.facilitylongitude, FA.facilitystreetaddress1,
FA.facilitystreetaddress2, FA.city, FA.addressstatecode,
FA.postalcode
INTO waterfrontcampgrounds
from w21adb31.facilities F join facilityaddresses FA
on F.facilityid = FA.facilityid
where F.facilityid in(
   select FC.facilityid
   from (campsites C join waterproximityonly WPO on C.campsiteid =
WPO.campsiteid) A
   join facilities FC on A.facilityID = FC.facilityID
   where A.attributevalue != 'N/A'
   and A.typeofuse = 'Overnight'
)
```

```
and F.facilitylatitude > 42
and F.facilitylatitude < 49
and F.facilitylongitude > -124
and F.facilitylongitude < -117;
```

The following questions get information that would be useful to make a reservation at a campground with waterfront access found above.

5. Which of these sites are also walk-in sites?
   Answer: There are 59 sites that are on the waterfront and also have walk-in access. Results are here.

   Query code is here:

```
-- 5. Are there any campgrounds with both waterfront access and
walk-to sites?
-- There are 15 campgrounds with "walk to" campsites within Oregon
and Washington
-- This includes their IDs, names, lat, long, and address
select distinct on (F.facilityid) F.facilityname,
F.facilitylatitude, F.facilitylongitude, FA.facilitystreetaddress1,
FA.facilitystreetaddress2, FA.city, FA.addressstatecode,
FA.postalcode
from w21adb31.facilities F join facilityaddresses FA
on F.facilityid = FA.facilityid
where F.facilityid in(
   select distinct on (facilityid) facilityid
   from w21adb31.campsites
   where campsitelatitude > 42
   and campsitelatitude < 49
   and campsitelongitude > -124
   and campsitelongitude < -117
   and campsitetype = 'WALK TO'
)
INTERSECT
select distinct on (F.facilityid) F.facilityname,
F.facilitylatitude, F.facilitylongitude, FA.facilitystreetaddress1,
FA.facilitystreetaddress2, FA.city, FA.addressstatecode,
FA.postalcode
from w21adb31.facilities F join facilityaddresses FA
on F.facilityid = FA.facilityid
where F.facilityid in(
   select FC.facilityid
   from (campsites C join waterproximityonly WPO on C.campsiteid =
WPO.campsiteid) A
   join facilities FC on A.facilityID = FC.facilityID
```

```
   where A.attributevalue != 'N/A'
   and A.typeofuse = 'Overnight'
)
and F.facilitylatitude > 42
and F.facilitylatitude < 49
and F.facilitylongitude > -124
and F.facilitylongitude < -117;

-- What are waterfront access sites that are walk-to?
select A.campsitename, F.facilityname, A.campsitetype,
A.attributevalue, A.campsitelongitude, A.campsitelatitude
into waterfrontwalkto
from (campsites C join waterproximityonly WPO on C.campsiteid =
WPO.campsiteid) A
join facilities F on A.facilityID = F.facilityID
where A.attributevalue != 'N/A'
and A.typeofuse = 'Overnight'
and A.campsitelatitude > 42
and A.campsitelatitude < 49
and A.campsitelongitude > -124
and A.campsitelongitude < -117
and A.campsitetype = 'WALK TO';
```

6. Which sites with waterfront access have a location rating of “Prime”?
   Answer: There are 163 sites returned. The results are here.

   The query code:

```
-- 6. Which sites with waterfront access have a location rating of
"Prime"?
-- Lists campsites with a location rating of prime with waterfront
access in OR and WA
-- ordered by campground name, then campsite name
select campsitename, loop, facilityname, attributename,
attributevalue, entityid
into primewaterfrontsites
```

```
from (campsites A join w21adb31.campsiteattributes B on A.campsiteID
= B.entityID) C
join facilities D on C.facilityID = D.facilityID
where C.attributename = 'Location Rating' and
C.attributevalue = 'Prime' and
C.entityid in (
   select campsiteID
   from WaterfrontCampsiteIDs
)
order by facilityname, campsitename;
```

7. Which of these sites allow tents only?
   Answer: There are 190 sites that have waterfront access and allow tent camping only. Results are here.

   Query code:

```
-- 7. Which waterfront sites allow tents only?
-- 190 campsites with waterfront access in OR and WA are tent only
select A.campsitename, A.loop, B.facilityname, A.campsitetype,
A.campsiteid
into tentonly
from campsites A join facilities B on A.facilityID = B.facilityid
where A.campsiteID in (
   select campsiteid
   from WaterfrontCampsiteIDs
)
and A.campsitetype like 'TENT ONLY %'
order by B.facilityname desc, A.campsitename;

-- Allow indexing of tentonly table
alter table tentonly
add primary key (campsiteid);
```

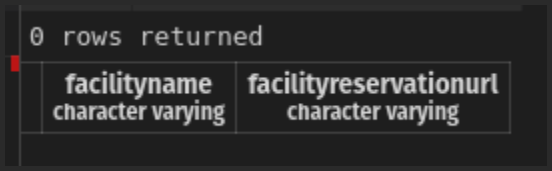
8. Which sites have waterfront access and a prime rating, allow tent camping only, and are reservable?
   Answer: There are 37 sites like this. The results are here.

The code is here:

```
-- 8. Which sites have waterfront access and a prime rating, allow
tent camping only,
-- and are reservable?

-- My initial question asked this for all sites with waterfront
access.
-- There are 1420 campsites with waterfront access in OR and WA that
are reservable
-- This is too many to be useful so I narrowed the search a bit.
select A.campsitename, A.loop, B.facilityname, B.reservable
from campsites A join facilities B on A.facilityID = B.facilityid
where A.campsiteID in (
   select campsiteid
   from WaterfrontCampsiteIDs
)
and B.reservable = true
order by B.facilityname desc, A.campsitename;

-- Create primary key so the table can be indexed
alter table primewaterfrontsites
add primary key (entityid);

-- Which sites have waterfront access and a prime rating, allow tent
camping only,
-- and are reservable?
-- There are 37 campsites like this.
select A.campsitename, A.loop, B.facilityname, B.reservable,
A.campsiteid
into primetentonlywaterfrontreservable
from campsites A join facilities B on A.facilityID = B.facilityid
where A.campsiteID in (
   select campsiteid
   from tentonly
) AND
A.campsiteID in (
   select entityid
   from primewaterfrontsites
) and
```

```
A.campsiteID in (
   select campsiteid
   from WaterfrontCampsiteIDs
)
and B.reservable = true
order by B.facilityname desc, A.campsitename;

-- create a primary key to allow indexing
alter table primetentonlywaterfrontreservable
add primary key (campsiteid);
```

9. What is the link to make a reservation (if one exists) for each site with waterfront access?
   Answer: All reservation links for these campgrounds are null.



Since those were all empty, here are the links for each campground that has a prime rating, allows tent camping only, has waterfront access and is reservable. They're all pretty useless, unfortunately.

facilityname character varying	url character varying
RIVERSIDE AT DETROIT	http://www.oregon.gov/odot/
BIG LAKE WEST CAMPGROUND	http://traveloregon.com
FALLS CREEK CAMPGROUND	http://www.experiencewashington.com/
LOST LAKE RESORT AND CAMPGROUND	http://www.recreation.gov/webphotos/facilitymaps/125541_E541.pdf
HEBO LAKE CAMPGROUND	http://www.oregon.gov/odot/

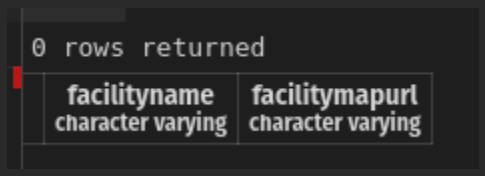
The code:

```
-- 9. What is the link to make a reservation (if one exists) for
each site
-- with waterfront access?

-- First, check out the data in the links table.
```

```sql
-- What is listed in entitytype in the links table?
-- Answer: 'Asset', or 'Tour'
select distinct on (entitytype) entitytype
from links;

-- Change the data type of entityid in links table so it can be
matched with other IDs
alter table links
alter column entityid
set data type varchar(200);

-- Answer: All these reservation urls are null
select facilityname, facilityreservationurl
from w21adb31.facilities
where facilityID in (
   select facilityid
   from WaterfrontCampsiteIDs
) and
facilityreservationurl <> NULL;

-- Since there are no links to make reservations, here are some
links for
-- each campground with waterfront access.
select distinct on (D.facilityID) D.facilityID, D.facilityname,
C.url
into reservationlinks
from (WaterfrontCampsiteIDs A join links B on A.facilityid =
B.entityid) C
join facilities D on C.entityid = D.facilityid
where D.facilityid in (
   select facilityid
   from waterfrontcampsiteIDs
);

-- create an index to speed queries
alter table reservationlinks
add primary key (facilityID);

-- This returns 156 rows, so I'll narrow it some.
select * from reservationlinks;
```

```
-- Here are links for
-- each campground that's prime, tent only, waterfront access, and
reservable
select distinct on (A.facilityID) A.facilityname, A.url
from reservationlinks A join campsites B on A.facilityID =
B.facilityID
where B.campsiteID in (
   select campsiteid
   from primetentonlywaterfrontreservable
);
```

10. What is the link to a map of each site (if one exists)?
    Answer: There are no map links for any of the campgrounds with sites with waterfront access.



The code:

```
-- 10. What is the link to a map of each site (if one exists)?
-- All these map urls are null
select facilityname, facilitymapurl
from w21adb31.facilities
where facilityID in (
   select facilityid
   from WaterfrontCampsiteIDs
)
and facilitymapurl <> null;
```

11. What are the fees for using these waterfront sites? (this includes overnight fees and permit fees)
    Answer: All use fee data for each campground that has waterfront sites is here. Many of the use fee fields are null.

    The query code is here:

```
-- 11. What are the fees for using this site? (this includes
-- overnight fees and permit fees)
-- Which fee descriptions have a $value in the EntityActivities
table?
-- Answer: 72 rows returned
select activityfeedescription
from w21adb31.entityactivities
where activityfeedescription like '%$%';

-- Are there any $ values in the CampsiteAttributes table?
-- Answer: No
select attributevalue
from w21adb31.campsiteattributes
where attributevalue like '%$%';

-- Which fee descriptions have $ values in the facilities table?
-- Answer: 757 rows returned
select facilityusefeedescription
from w21adb31.facilities
where facilityusefeedescription like '%$%';

-- There are 55 distinct rec area use fee descriptions
select distinct on (recareausefeedescription)
recareausefeedescription
from recareas;

-- There are 822 distinct facility use fee descriptions
select distinct on (facilityusefeedescription)
facilityusefeedescription
from facilities;

-- There are 1420 campsites with waterfront access in Oregon and
Washington
-- This gives campsiteIDs and facilityIDs in a new persistent table
```

```sql
select C.campsiteID, C.facilityID into WaterfrontCampsiteIDs
from campsites C join waterproximityonly WPO on C.campsiteid =
WPO.campsiteid
where WPO.attributevalue != 'N/A'
and C.typeofuse = 'Overnight'
and C.campsitelatitude > 42
and C.campsitelatitude < 49
and C.campsitelongitude > -124
and C.campsitelongitude < -117;

-- 159 unique facilities have campsites with waterfront access in
Oregon and Washington
select distinct on (facilityid) facilityid
from WaterfrontCampsiteIDs;

-- Change data type of parentrecareaID to match recareaID in
facilities and recareas tables
alter table w21adb31.facilities
alter column parentrecareaid
set data type varchar(200);

-- This lists all campsites with waterfront access and use fees
-- A lot of these are null
select distinct on (facilityname) A.campsitename, A.loop,
A.facilityname, A.facilityusefeedescription,
B.recareausefeedescription
from (campsites C join facilities F on C.facilityID = F.facilityID)
A
join recareas B on A.parentrecareaID = B.recareaID
where A.campsiteID in (
   select campsiteid
   from WaterfrontCampsiteIDs
);
```

The focus shifts to the entirety of the data, covering the nation as a whole for the remaining questions.

12. What percentage of the campsites are ADA accessible?
    Answer: 8.8%

    The query code:

```
-- 12. What percentage of the campsites are ADA accessible?
-- How is accessibility listed in this table?
-- Answer: A lot of different ways, maybe use them all?
select distinct on (attributename) attributename
from campsiteattributes;

-- What values are listed where Accessibility is an attributename?
-- Answer: Accessibility, Y
select distinct on (attributevalue) attributevalue
from w21adb31.campsiteattributes
where attributename = 'Accessibility';

-- How many sites have some kind of accessibility?
-- Answer: There are 9074 sites with some kind of accessibility
select distinct on (entityID) entityID, attributename,
attributevalue
from w21adb31.campsiteattributes
where (attributename = 'Accessibility'
or attributename like 'ACCESSIBLE%')
and (attributevalue = 'Y'
or attributevalue = 'Accessibility'
or attributevalue like 'Accessible%');

-- What are all the possible values in attributevalue for
accessibility?
-- Answer I put it in the query above. There are three main ones.
select distinct on (attributevalue) attributevalue
from w21adb31.campsiteattributes
where (attributename = 'Accessibility'
or attributename like 'ACCESSIBLE%');

-- How many sites are there total?
-- Answer: 102950
```

```
select distinct on (campsiteID) campsiteid
from campsites;

-- Answer 9074 / 102950 = 8.8%
```

13. What are the 10 least offered activities (i.e. the activities offered in the fewest sites)? Answer: There are 12 sites with only one location where they're offered. These are the 12 least offered activities. The results including trails are likely just entered differently than others that are similar.

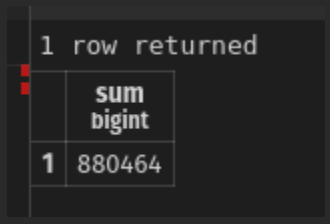
126 rows returned

	count bigint	activityname character varying
1	1	ICE SKATING
2	1	SNOW TUBING
3	1	BOAT RENTAL
4	1	GONDOLA RIDES
5	1	TRAILS, HORSE
6	1	SHUFFLE BOARD
7	1	TRAILS, DIFFICULT HIKING
8	1	TRAILS, ALL TERRAIN/OHV
9	1	STARGAZING
10	1	HIKING TRAIL
11	1	MOTEL
12	1	GOLF

The code:

```
select count(A.activityname), A.activityname
from activities A join entityactivities E on A.activityID =
E.activityid
group by activityname
order by count(activityname);
```

14. What is the total length of all paved driveway surfaces in all the campsites?
    Answer: 880,464ft



1 row returned

	sum bigint
1	880464

The query code:

```
-- 14. What is the total length of all paved driveway surfaces in
all the campsites?
-- Casting the string to an integer. Some cleaning will help.
select attributename, cast(attributevalue as integer)
into PavedDrivewayLengthsAsInts
from w21adb31.campsiteattributes
where attributename = 'Driveway Length'
and entityid in (
   select entityid
   from w21adb31.campsiteattributes
   where attributevalue = 'Paved'
   );

drop table paveddrivewaylengths;

-- What are the attribute names used in the campsiteattributes
table?
select distinct on (attributename) attributeid, attributename
from campsiteattributes;

-- What entries have non-numeric values for the length?
-- First get a table with just paved driveway lengths
-- 20463 rows returned
select attributename, attributevalue
into PavedDrivewayLengths
from w21adb31.campsiteattributes
where attributename = 'Driveway Length'
and entityid in (
   select entityid
   from w21adb31.campsiteattributes
```

```
   where attributevalue = 'Paved'
   );

select * from PavedDrivewayLengths;
-- Then check for which of these have non-numeric values

-- Find entries that won't convert to integers
-- This query returns 24 rows, so I'll just delete them
select attributevalue
from PavedDrivewayLengths
where attributevalue like '%FT%';

-- Delete rows that contain FT
-- 24 rows deleted
delete from PavedDrivewayLengths
where attributevalue like '%FT%';

-- Delete rows that contain ,
-- 1 row deleted
delete from PavedDrivewayLengths
where attributevalue like '%,%';

-- Delete rows that contain '
-- 26 rows deleted
delete from PavedDrivewayLengths
where attributevalue like '%''%';

-- Delete rows that contain ft
-- 3 rows deleted
delete from PavedDrivewayLengths
where attributevalue like '%f%';

-- Delete rows that contain x
-- 3 rows deleted
delete from PavedDrivewayLengths
where attributevalue like '%x%';

-- Now cast the lengths to ints in a new table
-- 20406 rows returned
select attributename, cast(attributevalue as integer)
```

```
into PavedDrivewayLengthsAsInts
from PavedDrivewayLengths;

-- Now get the sum of all the driveway lengths
-- Sum is 880464
select sum(attributevalue)
from PavedDrivewayLengthsAsInts;
```

15. What are the names and locations of facilities offering tree permits?
    Answer:
    There are 76 facilities offering tree permits. Results are here.

    This is the code for the query:

```
-- 15. What are the names and locations of facilities offering tree
permits?
-- There are 76 facilities offering tree permits
-- This gives their names, lat, and long
select distinct on (facilityid)
facilityname, facilitylongitude, facilitylatitude,
facilitytypedescription
into treepermitfacilities
from facilities
where facilitytypedescription = 'Tree Permit';

select * from campsites;
select * from facilities;
```

16. How many sites does each of the organizations manage (BLM, NPS, etc)?
    For this question a site is defined as a ticket facility, campground, permit, rec area, or facility.
    Answer:

23 rows returned

	count bigint	orgname character varying
1	649	Fish and Wildlife Service
2	18	National Archives and Records Administration
3	21	National Historic Landmark
4	94	National Register of Historic Places
5	2549	Bureau of Land Management
6	1745	National Park Service
7	41	National Oceanic and Atmospheric Administration
8	34	New Mexico
9	353	Department of Transportation
10	242	Bureau of Reclamation
11	1	Department of the Interior
12	110	Smithsonian Institution Affiliations Program
13	9442	USDA Forest Service
14	1	Historic Hotels of America
15	14	Smithsonian Institution
16	2121	US Army Corps of Engineers
17	1	US Air Force
18	31	Tennessee Valley Authority
19	1	Virginia
20	1	Maryland
21	1	Bureau of Engraving and Printing
22	43	Utah
23	1	Texas

    The code:

```
-- How many sites does each of the organizations manage?
select * from organizations;

-- What are the entity types in the orgentities table?
-- Answer: Ticket Facility, Campground, Permit, Rec Area, Facility
select entitytype
```

```
from w21adb31.orgentities
group by entitytype;

-- How many entries are there for each org in the OrgEntities table?
select count(orgname), orgname
from OrgEntities E join Organizations O on E.orgid = O.orgid
group by orgname;
```

17. How many campgrounds feature mushroom picking?
    Answer: 28 campgrounds offer this.

28 rows returned

	activityid integer	activitydescription character varying	activityfeedescription character varying	entityid integer	entitytype character varying
1	100042	Mushroom Picking	*null*	10004919	Campground
2	100042	Mushroom Picking	*null*	10007160	Campground
3	100042	Mushroom Picking	*null*	10052157	Campground
4	100042	Mushroom Picking	*null*	231995	Campground
5	100042	Mushroom Picking	*null*	232442	Campground
6	100042	Mushroom Picking	*null*	232468	Campground
7	100042	Mushroom Picking	*null*	233131	Campground

The code:

```
-- Is mushroom picking an entry in activities?
-- Answer: Yes, it's in all caps
select activityname
from w21adb31.activities
group by activityname
order by activityname;

-- What is the activityID of mushroom picking?
-- Answer: 100042
select distinct on (activityname) *
from w21adb31.activities
order by activityname;
```

```
-- Which entities feature mushroom picking?
select *
from w21adb31.entityactivities
where activityid = 100042;
```

18. How many sites include the racial slur ‘squaw’ in their names?
    Answer: There are 10 facilities with this racial slur.

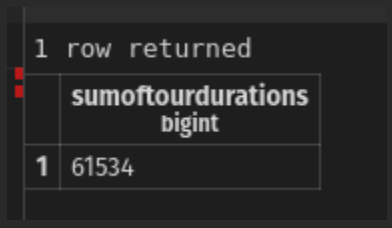
10 rows returned

	facilityname character varying	facilitylatitude real	facilitylongitude real
1	T.K. Jones Campground at Squaw Lake and Boat Launch	32.902916	-114.477135
2	SQUAW LAKES	42.123055	-123.125
3	SQUAW MOUNTAIN FIRE LOOKOUT	39.67889	-105.492775
4	Bayhorse - Squaw Creek Area	0	0
5	Squaw Creek Trailhead	44.38839	-114.49409
6	Squaw Creek	37.246292	-95.77293
7	SQUAW PEAK LOOKOUT	42.069683	-123.01188
8	Squaw Trail	37.05852	-112.52658
9	T.K. Jones Campground at Squaw Lake	32.903587	-114.47729
10	Squaw Lakes Day Use	42.035168	-123.0256

The code:

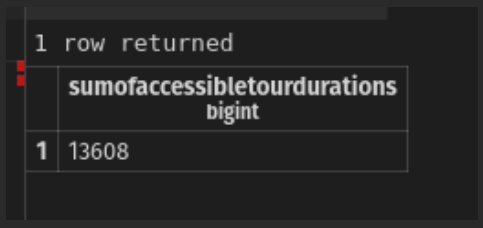
```
-- 18. How many facilities include the racial slur 'squaw' in their
name?
-- Answer: 10
select facilityname, facilitylatitude, facilitylongitude
from facilities
where facilityname ilike '%squaw%';
```

19. What is the total duration of all tours offered and what percentage of the total time is for accessible tours?
    Answer:
    Total duration of all tours offered: 61,534 hours
    Duration of accessible tours offered: 13,608 hours
    Percentage of total time is for accessible tours: 22.1%



1 row returned

	sumoftourdurations bigint
1	61534



1 row returned

	sumofaccessibletourdurations bigint
1	13608

The code:

```
-- What is the total duration of all tours offered?
-- Answer: 61,534 hours
select sum(tourduration) as SumOfTourDurations
from tours;

-- What is the total time of accessible tours offered?
-- Answer: 13,608 hours
select sum(tourduration) as SumOfAccessibleTourDurations
from w21adb31.tours
where touraccessible = true;
```

20. How many of the links associated with sites are .com versus .org?
    Answer:
    .orgs: 711
    .coms: 2509

1 row returned

	orgsites bigint
1	711

1 row returned

	comsites bigint
1	2509

Code:

```sql
-- How many of the links associated with sites are .com versus .org?
-- Answer: 711 .orgs
select count(url) as orgSites
from w21adb31.links
where url like '%.org';
-- Answer: 2509 .coms
select count(url) as comSites
from w21adb31.links
where url like '%.com';
```