Sierra DNA/SQL
A Crash Course

Brandon Cole, User Services Manager
Sierra DNA?

What Is It?
- Postgres database access
- Database structured tables and views
- All data from Sierra is stored in this structure

What are the benefits?
- Custom queries to meet your individual needs
- Combine data from different views to see more information
- Save your query as text and just paste in whenever you need to run the query again
- Many ways to filter and sort data
- Export in CSV

How can I access it?
- Need to have some understanding of how queries and database are structured
- Need a way to interact with the database (PGAdmin3, etc.)
- Need to get certified by Marmot staff to get access
The Basic Query

Select
Choose the data columns that you want to pull from the views

From
The view or views that you are pulling the data columns from

Join
Connect multiple views together

Where
How you want to filter the data

Order By
How you want to sort the data

Limit
A way to limit the number of results

SELECT
  brl.location_code,
  brp.best_title
FROM
  sierra_view.bib_record_location as brl
JOIN
  sierra_view.bib_record_property as brp
ON
  brp.bib_record_id = brl.bib_record_id
WHERE
  brl.location_code like 'as%'
AND
  brp.best_title like 'The girl with the%'
The Results

- Results are sent back showing data that fits your **WHERE** and **LIMIT** criteria.
- Each line is one row of data.
- Each row is the data from one record.
- These results can be exported and manipulated in a program like Excel.
SELECT brl.location_code, brp.best_title, ir.item_status_code, prf.first_name, prf.last_name, irp.barcode
FROM sierra_view.bib_record_location as brl
JOIN sierra_view.bib_record_item_record_link as bril ON bril.bib_record_id = brl.bib_record_id
JOIN sierra_view.bib_record_property as brp ON brp.bib_record_id = bril.bib_record_id
JOIN sierra_view.item_record as ir ON ir.record_id = bril.item_record_id
JOIN sierra_view.hold as h ON h.record_id = ir.record_id
JOIN sierra_view.patron_record as pr ON pr.record_id = h.patron_record_id
JOIN sierra_view.item_record_property as irp ON irp.item_record_id = ir.record_id
JOIN sierra_view.patron_record_fullname as prf ON prf.patron_record_id = pr.record_id
JOIN sierra_view.patron_record_fullname as prf ON prf.patron_record_id = pr.record_id
WHERE brl.location_code like '9%
AND brp.best_title like '%'
AND pr.home_library_code like 'as%'
ORDER BY ir.item_status_code
<table>
<thead>
<tr>
<th>location_code</th>
<th>best_title</th>
<th>item_status_code</th>
<th>first_name</th>
<th>last_name</th>
<th>barcode</th>
</tr>
</thead>
<tbody>
<tr>
<td>9dupp</td>
<td>Addiction and art / edited by Patricia B. Santora, M...</td>
<td></td>
<td></td>
<td></td>
<td>U1860196948329dupp</td>
</tr>
<tr>
<td>9fcpp</td>
<td>Darkstalker / by Tui T. Sutherland.</td>
<td></td>
<td></td>
<td></td>
<td>330520147811759fcpp</td>
</tr>
<tr>
<td>9fcpp</td>
<td>I survived the eruption of Mount St. Helens, 1980 /...</td>
<td></td>
<td></td>
<td></td>
<td>330520148108759fcpp</td>
</tr>
<tr>
<td>9cubp</td>
<td>Dock Ellis in the country of baseball / Donald Hall,...</td>
<td></td>
<td></td>
<td></td>
<td>U1830362293499cubp</td>
</tr>
<tr>
<td>9doug</td>
<td>Everyday style : key pieces to sew + accessories, s...</td>
<td></td>
<td></td>
<td></td>
<td>330250345339099doug</td>
</tr>
<tr>
<td>9cubp</td>
<td>Big hair and plastic grass : a funky ride through ba...</td>
<td></td>
<td></td>
<td></td>
<td>U1830500563449cubp</td>
</tr>
<tr>
<td>9uwyp</td>
<td>Ball Four : the final pitch / by Jim Bouton.</td>
<td></td>
<td></td>
<td></td>
<td>U1810202070629uwyp</td>
</tr>
<tr>
<td>9fcpp</td>
<td>A year on Ladybug Farm / Donna Ball.</td>
<td></td>
<td></td>
<td></td>
<td>330520125162439fcpp</td>
</tr>
</tbody>
</table>
Other options with DNA

- Couple queries with scripts to automate, and have them sent to email as a spreadsheet
- Patrons Opted into Reading history
- Patrons with Hold older than (x) days
- Duplicate patrons (barcode and name based)
- I-type Counts
- Number of holds on a certain material
- INN-Reach checkouts
- Blank field clean up
Questions?