

# Library Decisions with Alma Analytics

Elizabeth Jones

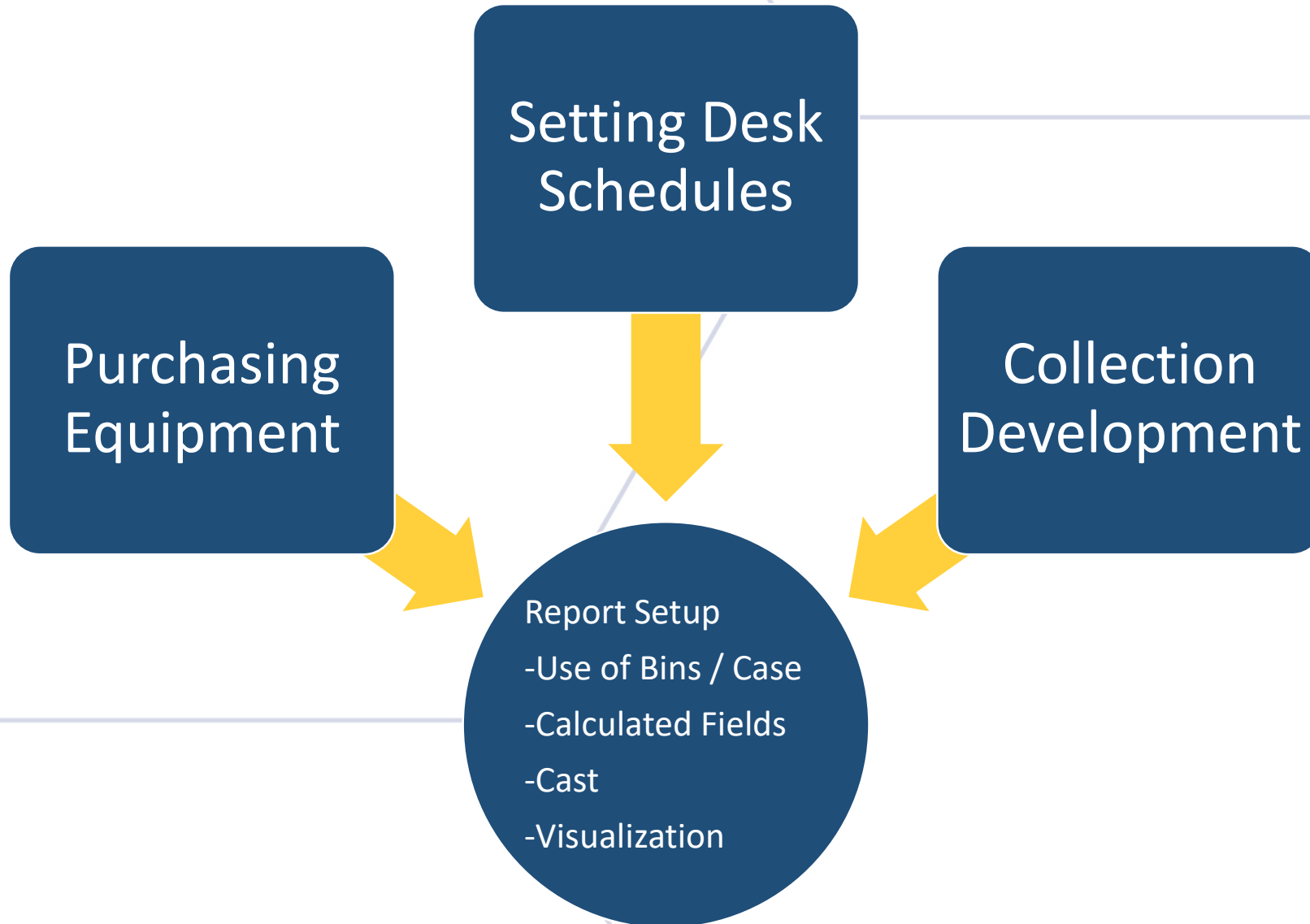
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U N I V E R S I T Y   O F   C E N T R A L   O K L A H O M A



# Purchasing Equipment



# Purchasing Equipment

- Problem: 30 aging laptops/tablets of various size, type, and brand.
- How many and what type do we purchase?
- To determine the number, we need to know the average number checked out simultaneously.

	Loans			
Laptop	2015	2016	2017	2018
Dell Latitude	819	2,272	1,934	
Dell Tablet	3,369	3,059	2,612	199
HP Laptop			575	1,043
Levovo Ideapad			323	



# Purchasing Equipment Report

Limit the report by barcode

Create bins or use CASE for loan times

Concatenate loan date and loan time to sum loan

Use DayofMonth for loan day

Export to Excel

Use Countifs function in Excel

Graph in Excel

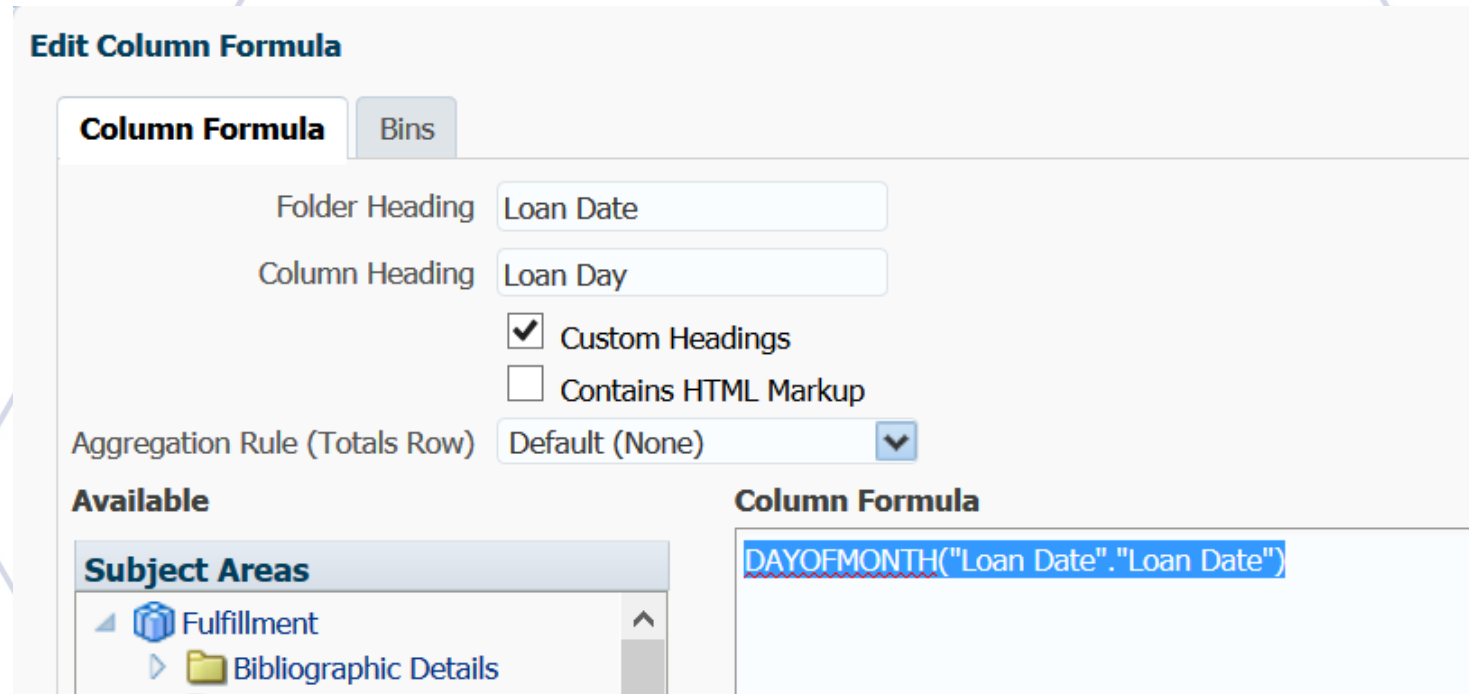
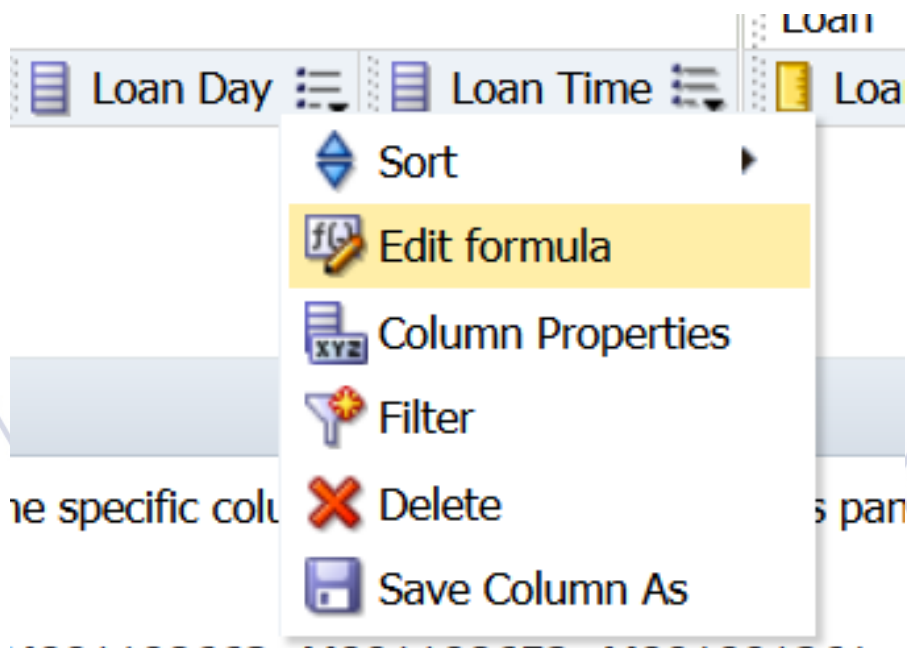
```
=COUNTIFS($F:$F,$H4,$A:$A,I$3)
```

Physical Item Details	Loan Date					Loan	
Laptop	Loan Year	Loan Month	Loan Day	Loan Time	Loans	Sum Loans	



# Loan Day

- DAYOFMONTH("Loan Date"."Loan Date")



# CASE

## Laptops

```
CASE WHEN "Physical Item Details"."Barcode" IN
('M001097513', 'M001097525', 'M001097526',
'M001097527', 'M001097528', 'M001097529',
'M001097530', 'M001097531') THEN 'Dell Latitude'
WHEN "Physical Item Details"."Barcode" IN
('M001091261', 'M001091269', 'M001091266',
'M001091262', 'M001091268', 'M001091277',
'M001091267', 'M001091274', 'M001091270',
'M001091265', 'M001022449', 'M001091264',
'M001091263', 'M001106889', 'M001091272',
'M001091276', 'M001091271') THEN 'Dell Tablet'
WHEN "Physical Item Details"."Barcode" IN
('M001108653', 'M001108654', 'M001108663',
'M001108652') THEN 'Levovo Ideapad' WHEN
"Physical Item Details"."Barcode" IN ('M000997586',
'M000997599', 'M000997598', 'M000997600',
'M000997601', 'M000997597', 'M000997585',
'M000997602') THEN 'HP Laptop' ELSE 'Other' END
```

## Loan Time

```
CASE WHEN "Loan Date"."Loan Time" LIKE '07%' THEN '7am-8am' WHEN
"Loan Date"."Loan Time" LIKE '08%' THEN '8am-9am' WHEN "Loan
Date"."Loan Time" LIKE '09%' THEN '9am-10am' WHEN "Loan Date"."Loan
Time" LIKE '10%' THEN '10am-11am' WHEN "Loan Date"."Loan Time" LIKE
'11%' THEN '11am-12pm' WHEN "Loan Date"."Loan Time" LIKE '12%'
THEN '12pm-1pm' WHEN "Loan Date"."Loan Time" LIKE '13%' THEN '1pm-
2pm' WHEN "Loan Date"."Loan Time" LIKE '14%' THEN '2pm-3pm' WHEN
"Loan Date"."Loan Time" LIKE '15%' THEN '3pm-4pm' WHEN "Loan
Date"."Loan Time" LIKE '16%' THEN '4pm-5pm' WHEN "Loan Date"."Loan
Time" LIKE '17%' THEN '5pm-6pm' WHEN "Loan Date"."Loan Time" LIKE
'18%' THEN '6pm-7pm' WHEN "Loan Date"."Loan Time" LIKE '19%' THEN
'7pm-8pm' WHEN "Loan Date"."Loan Time" LIKE '20%' THEN '8pm-9pm'
WHEN "Loan Date"."Loan Time" LIKE '21%' THEN '9pm-10pm' WHEN
"Loan Date"."Loan Time" LIKE '22%' THEN '10pm-11pm' WHEN "Loan
Date"."Loan Time" LIKE '23%' THEN '11pm-12am' WHEN "Loan
Date"."Loan Time" LIKE '00%' THEN '12am-1am' WHEN "Loan Date"."Loan
Time" LIKE '01%' THEN '1am-2am' WHEN "Loan Date"."Loan Time" LIKE
'02%' THEN '2am-3am' WHEN "Loan Date"."Loan Time" LIKE '03%' THEN
'3am-4am' WHEN "Loan Date"."Loan Time" LIKE '04%' THEN '4am-5am'
WHEN "Loan Date"."Loan Time" LIKE '05%' THEN '5am-6am' WHEN "Loan
Date"."Loan Time" LIKE '06%' THEN '6am-7am' ELSE 'Other' END
```



# CASE with Bins

- Military Time
- 00 = 12AM

**Edit Column Formula**

Column Formula    **Bins**

7.	Loan Time	begins with 13	1pm-2pm	
8.	Loan Time	begins with 14	2pm-3pm	
9.	Loan Time	begins with 15	3pm-4pm	
10.	Loan Time	begins with 16	4pm-5pm	
11.	Loan Time	begins with 17	5pm-6pm	
12.	Loan Time	begins with 18	6pm-7pm	

Treat result as a numeric value or expression

**Add Bin**    **Clear All**

**1**

**New Filter**

Column: Loan Time

Operator: begins with

Value: 13

**Add More Options**    **Clear All**

**Protect Filter**

**Invert this filter to SQL**

**2**

**Edit Bin Name**

1pm-2pm

**OK**    **Cancel**

**3**



# Sum Loan – Concatenation & CAST

```
Sum("Loan"."Loans" BY (CAST("Loan Date"."Loan Date" AS CHAR)||' - ')||CASE WHEN  
"Loan Date"."Loan Time" LIKE '07%' THEN '7am-8am' WHEN "Loan Date"."Loan Time" LIKE  
'08%' THEN '8am-9am' WHEN "Loan Date"."Loan Time" LIKE '09%' THEN '9am-10am'  
WHEN "Loan Date"."Loan Time" LIKE '10%' THEN '10am-11am' WHEN "Loan Date"."Loan  
Time" LIKE '11%' THEN '11am-12pm' WHEN "Loan Date"."Loan Time" LIKE '12%' THEN  
'12pm-1pm' WHEN "Loan Date"."Loan Time" LIKE '13%' THEN '1pm-2pm' WHEN "Loan  
Date"."Loan Time" LIKE '14%' THEN '2pm-3pm' WHEN "Loan Date"."Loan Time" LIKE '15%'  
THEN '3pm-4pm' WHEN "Loan Date"."Loan Time" LIKE '16%' THEN '4pm-5pm' WHEN  
"Loan Date"."Loan Time" LIKE '17%' THEN '5pm-6pm' WHEN "Loan Date"."Loan Time" LIKE  
'18%' THEN '6pm-7pm' WHEN "Loan Date"."Loan Time" LIKE '19%' THEN '7pm-8pm' WHEN  
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'21%' THEN '9pm-10pm' WHEN "Loan Date"."Loan Time" LIKE '22%' THEN '10pm-11pm'  
WHEN "Loan Date"."Loan Time" LIKE '23%' THEN '11pm-12am' WHEN "Loan Date"."Loan  
Time" LIKE '00%' THEN '12am-1am' WHEN "Loan Date"."Loan Time" LIKE '01%' THEN '1am-  
2am' WHEN "Loan Date"."Loan Time" LIKE '02%' THEN '2am-3am' WHEN "Loan  
Date"."Loan Time" LIKE '03%' THEN '3am-4am' WHEN "Loan Date"."Loan Time" LIKE '04%'  
THEN '4am-5am' WHEN "Loan Date"."Loan Time" LIKE '05%' THEN '5am-6am' WHEN "Loan  
Date"."Loan Time" LIKE '06%' THEN '6am-7am' ELSE 'Other' END))
```



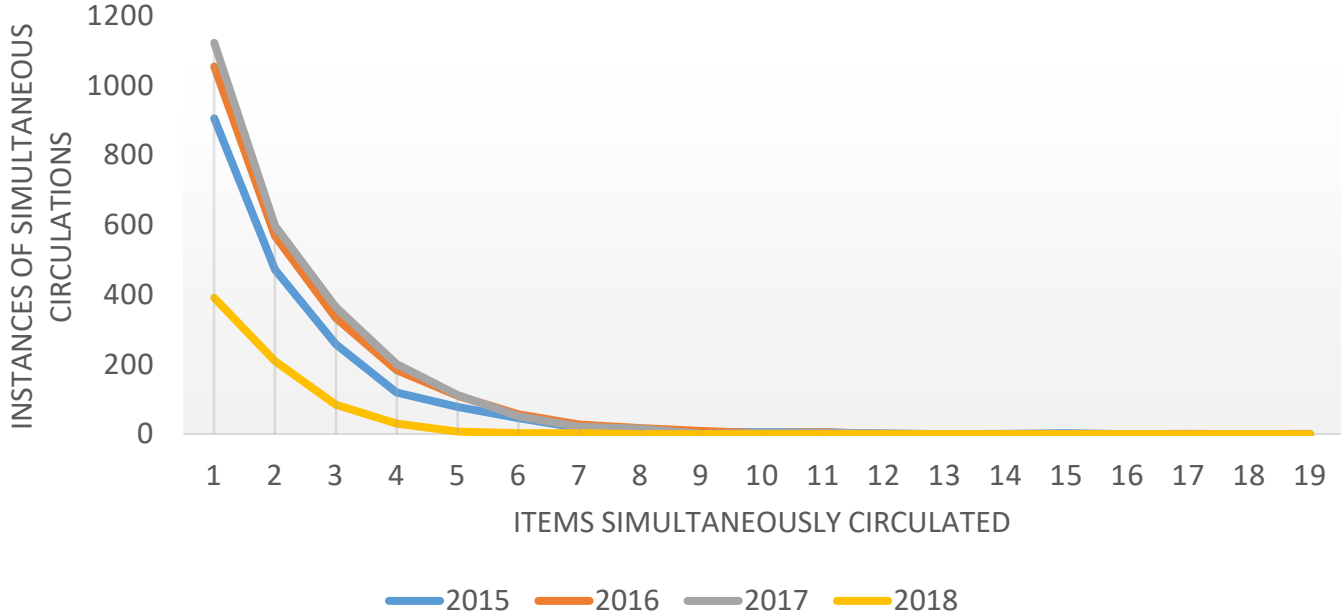
# Sum Loan – Concatenation & CAST

- Loans are lists for each barcode for a particular date during a one hour time period.
- We want total loans (all barcodes) for a particular date and time.
- Sum (<col1> BY <col2> – Red.
- Col2 is the issue. It is the combination of the loan date and loan time.
- Concatenate: <loan date> || ' – ' || <loan time> - Orange.
- Error concatenating dates. Need to change the field type to CHAR
- CAST (<loan date> AS CHAR) – Blue.
- Loan time is created by the CASE function. You have to concatenate the entire CASE function for loan time. – Green.



# Excel Visualization

Laptop/Tablet Simultaneous Circulations



	2015	2016	2017	2018
1	906	1055	1123	391
2	472	568	598	209
3	258	333	364	84
4	119	183	201	30
5	78	110	112	7
6	46	57	51	2
7	17	27	21	2
8	11	17	15	0
9	6	9	1	0
10	5	2	3	0
11	5	5	3	0
12	1	0	2	0
13	0	0	0	0
14	1	0	0	0
15	2	0	0	0
16	0	0	0	0
17	0	1	0	0
18	0	0	0	0

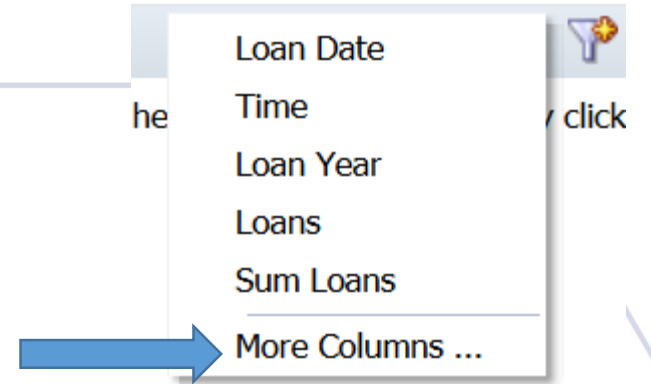
# Setting Desk Schedules



	Room 1	Room 2	Room 3	Table 1	Table 2	Table 3	Table 4
Session 1	Effectively transcribing in-person sessions for remote attendees and archival access RAIRU			George Virtual Reality collaboration spaces			
Session 2		NETWORKING COLLABORATIVE WHITE BOARD		GAMES TO CREATE "ETE CONTACT" IN WEB CONFERENCING			
Session 3		LIGHT WEIGHT ROOM JOINING USING VIDEO SKYPE					
Session 4				SMAN Open source vs Shared source			



# Desk Schedules

- What are our busiest times?
- How many people should we schedule?
- Can limit by desk, if you have multiple circulation desks in Alma.
- Filter by loan year.
- This will give you the busiest hours.
- Change CASE labels for loan time so they can be sorted 0-23.



 Loan Year is equal to / is in 2014; 2015; 2016; 2017; 2018  
**AND**  Circ Desk Name is equal to / is in Chambers Circulation Desk



# Alma Visualization

The interface shows a sidebar on the left with the following options:

- Best Visualization
- Recommended Visualization for
- Title
- Table
- Pivot Table
- Performance Tile
- Treemap
- Trellis
- Graph
- Gauge
- Funnel
- Map
- Filters
- Selection Steps
- Other Views

The main area displays a line graph with a vertical axis labeled "Lines (Vertical Axis)" and a horizontal axis with date ticks: 02-2ar, U3-3ar, 1-4ar, 2-5ar, 3-6ar, 4-7ar, 5-8ar, 6-9ar, 7-10e, 8-11e, 9-12f, 10-1pr, 11-2pr. The graph shows multiple colored lines representing data over time.

**Graph Prompts**

Drop here for graph prompts

**Sections**  Display as Slider

Drop here for sectioned view

**Line Graph**

**Measures**

Lines (Vertical Axis)

Loans

**Line**

Group By (Horizontal Axis)

Time

Vary Color By (Horizontal Axis)

Show In Legend

Loan Year

Measure Labels  Show Subject

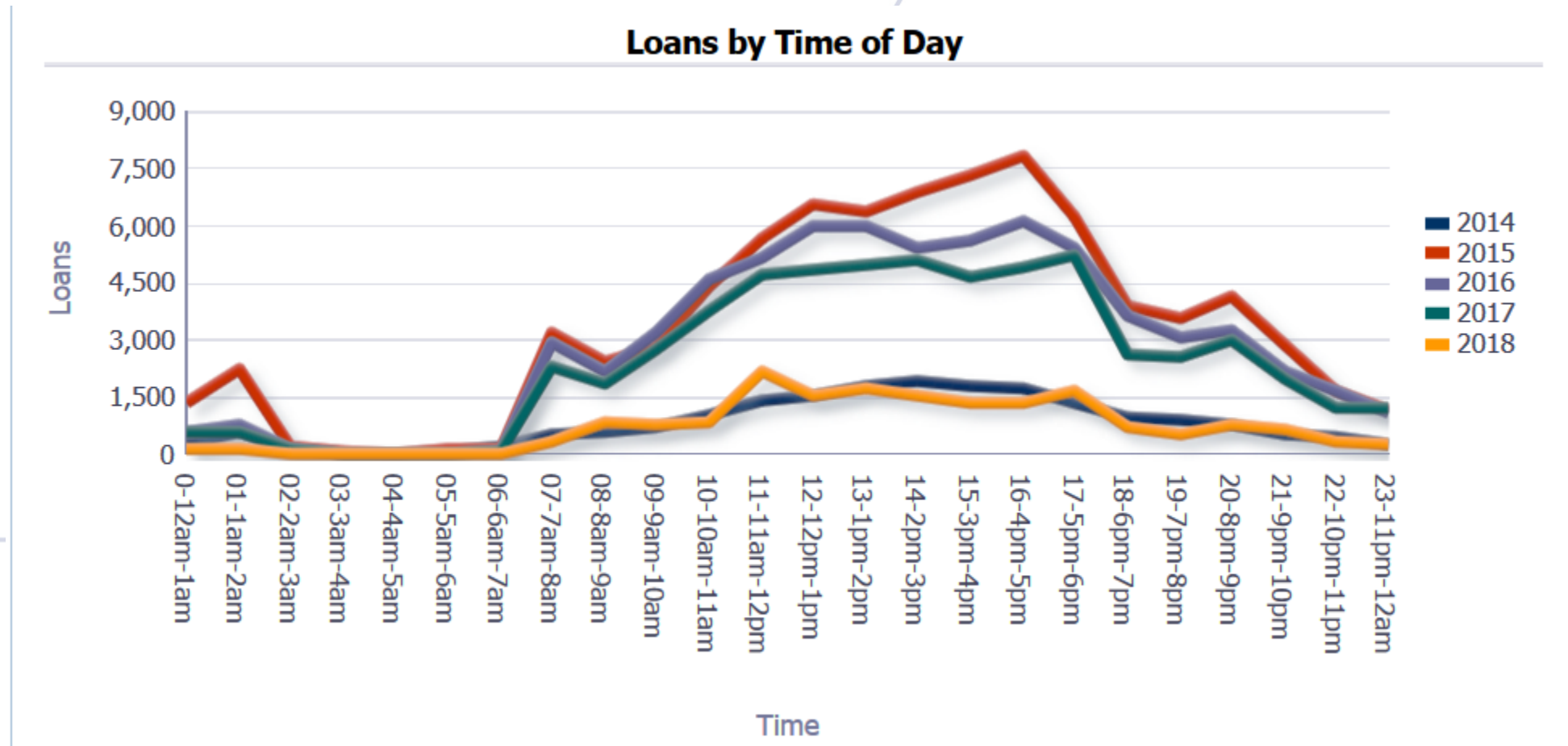
**Excluded**

Loan Date





# Alma Visualization Cont...



# Desk Schedules – Further Consideration

- How many loans constitute scheduling extra people?
- Is there a way to pull the data that shows loans/patron (transactions)?





# Collection Development



UNIVERSITY OF CENTRAL OKLAHOMA

# Collection Development by Subject

Group by  
topline LC call  
number



Going to use the  
1<sup>st</sup> Subject  
heading



Count the  
number of titles  
in that area

Holding Details	Bibliographic Details
Permanent LC ClassificationTop Line	1st Subject
	COUNT(Title)

and select after selecting its name in the catalog panel.

Permanent LC ClassificationTop Line is between QA75.5 and QA76.95  
**AND** Material Type is equal to / is in Book



# Subject & Title Fields

## 1<sup>st</sup> Subject

- **CASE WHEN**  
LOCATE(';', "Bibliographic  
Details"."Subjects") > '0' **THEN**  
LEFT("Bibliographic  
Details"."Subjects",  
(LOCATE(';', "Bibliographic  
Details"."Subjects")-1)) **ELSE**  
"Bibliographic  
Details"."Subjects" **END**

## Count Title

```
COUNT("Bibliographic  
Details"."Title")
```



# Alma Visualization

Drop here for sectioned view

### Bar Graph

#### Measures

Bars (Vertical Axis)

  COUNT(Title)

#### Bars

Group By (Horizontal Axis)

  Permanent LC ClassificationTop Line

Vary Color By (Horizontal Axis)

Show In Legend

 Measure Labels

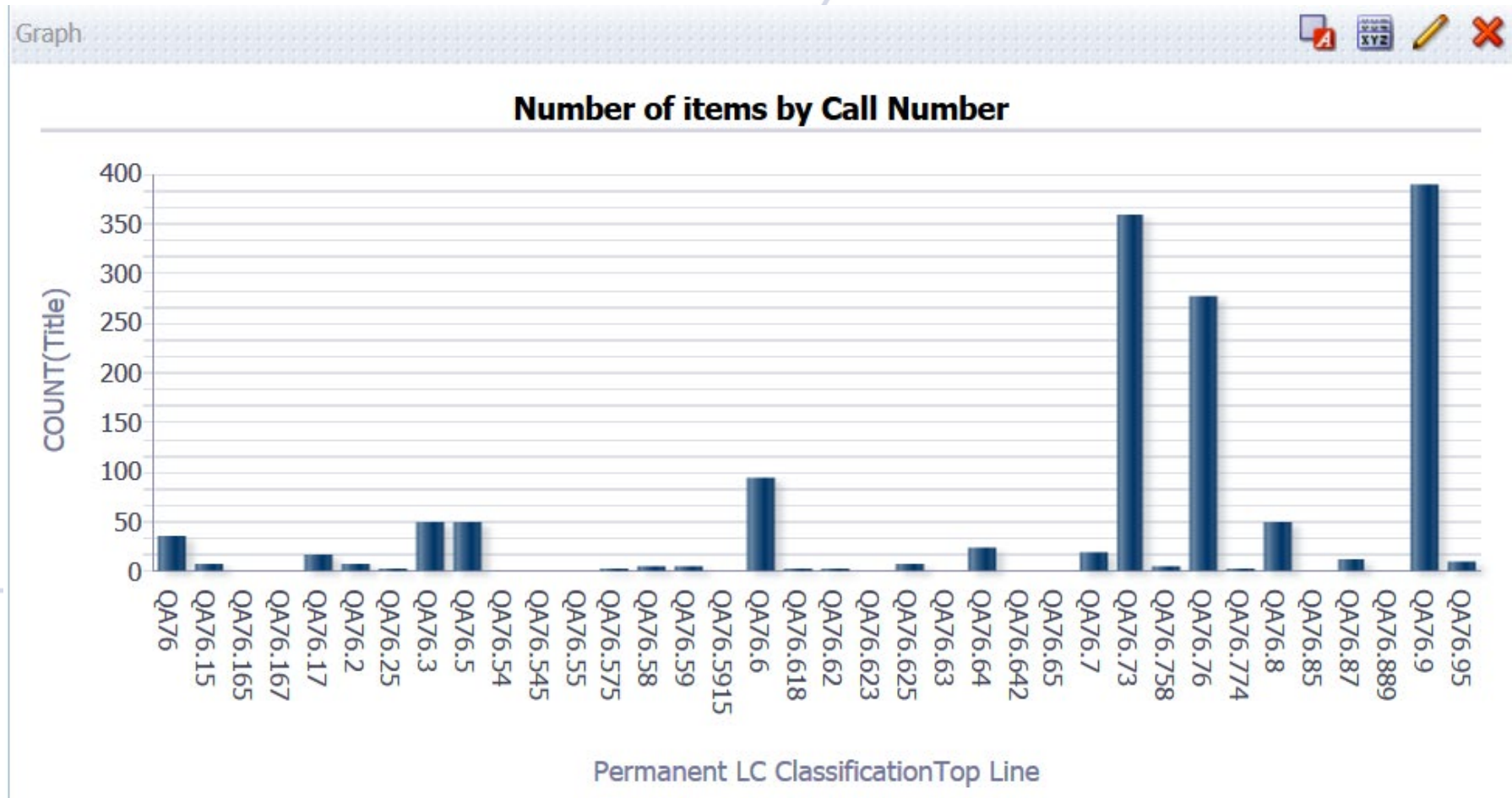
#### Excluded

  1st Subject

Selection Steps



# Alma Visualization Cont...





U N I V E R S I T Y O F C E N T R A L O K L A H O M A