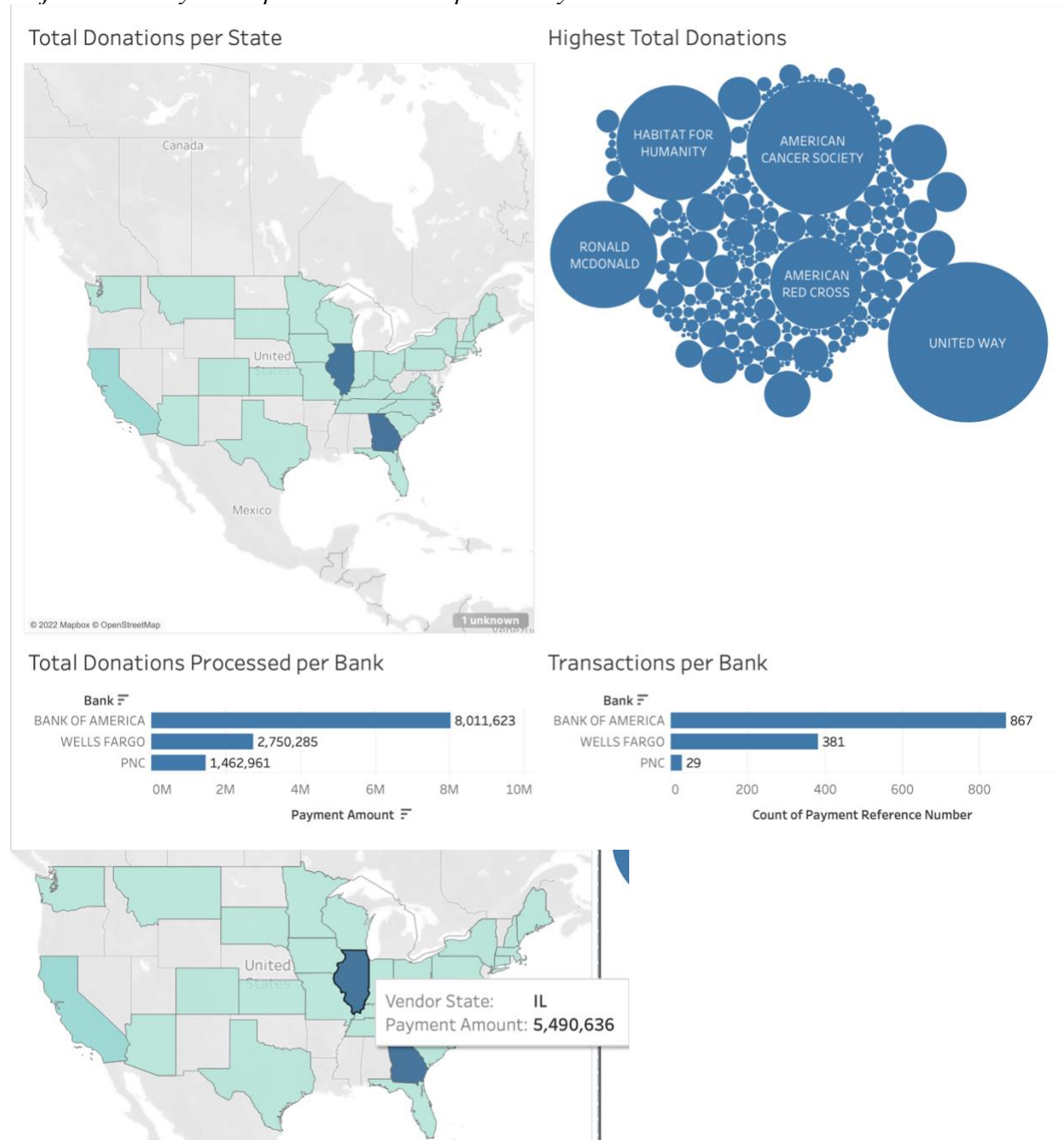


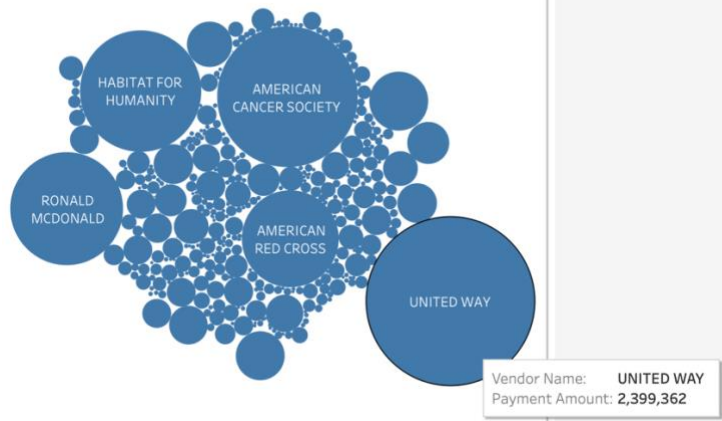
Daniel Gillinger
Tableau Portfolio
Due: 11/14/22

Chapter 1: Accounting as Information

Objective: Analyze Corporate Social Responsibility



Highest Total Donations



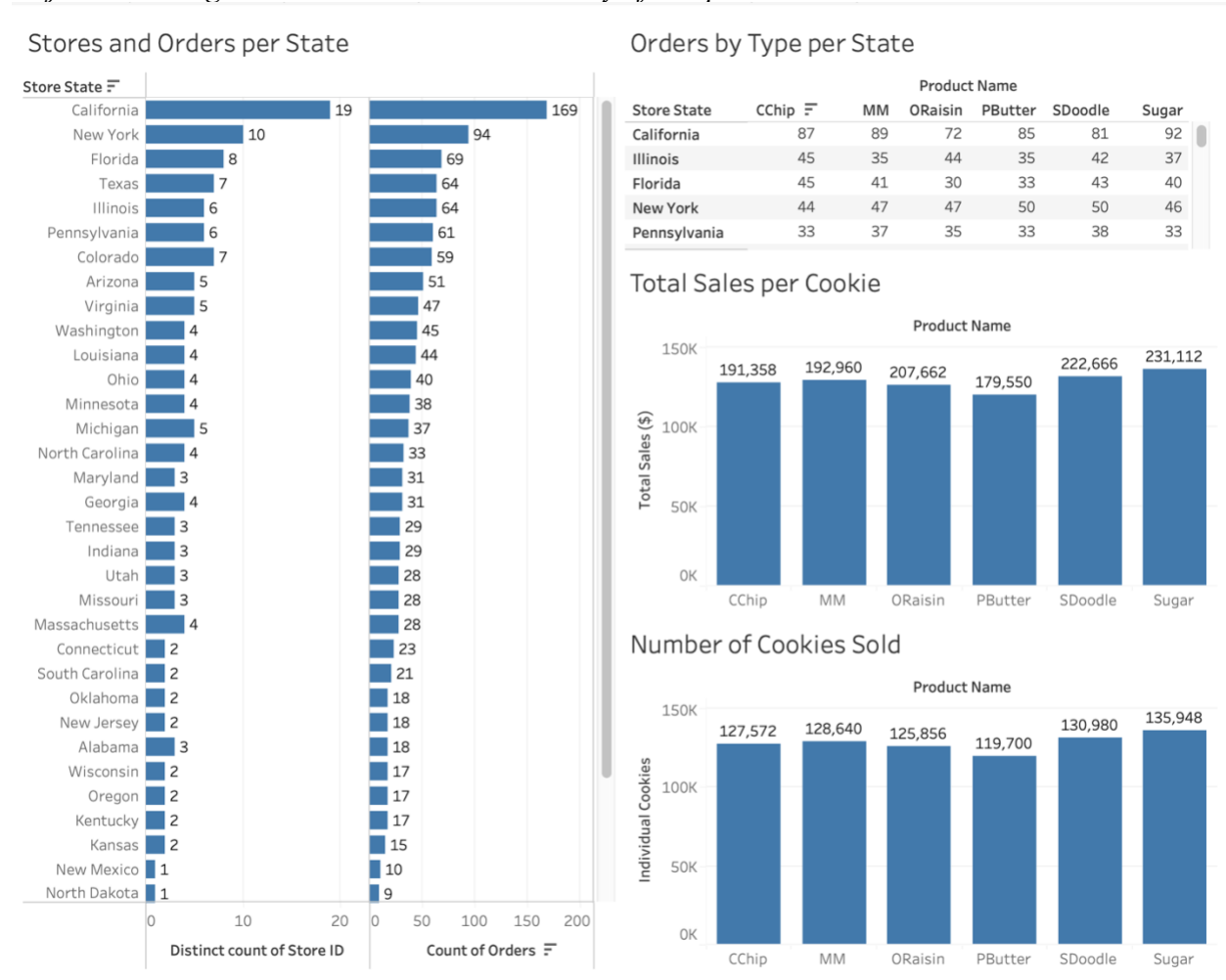
The first chapter focuses on introducing the idea of accounting as more than just the tasks that accountings perform, but as Information. In this dataset, that accounting information can be used to paint a picture of what is going on. With the proper visual you can see that Julia's Cookies primarily uses Bank of America. It has the most transactions and amounts processed, and if you go down, you will see that Wells Fargo performs over ten times as many transactions as PNC, but only about double the amount. There are probably much larger transactions going on in PNC than in Wells Fargo.

These things that you can discover with the proper visualization is where accounting joins information systems and data analytics to help you see the big picture and to help you pick up the audit trail.

The other two visualizations show what charities are primarily donated to and where in the United States that money is going. When accounting is information, it becomes more fluid. You can see where it flows in an organization and across the country. With these diagrams you can see where Julia's Cookies social interests lie. And again, if you are wearing your auditing cap, you can start to see some connections that can help when things do not add up.

Chapter 18: Data Visualization

Objective: Design a Dashboard to Tell the Story of Corporate Sales



Chapter 18 is the logical next step in understanding the main objective of this textbook. It begins by claiming accounting is information, and then it goes on in the following chapters to explain how it qualifies as information. Finally, it ends with many different ways to visualize and present that information. The reason it is the logical next step after chapter 1 is because it allows you to go through the book with an idea on how to not just look at how the data is being presented, but how it could or even should be presented, either to be more effective or to be in support of a more convincing argument.

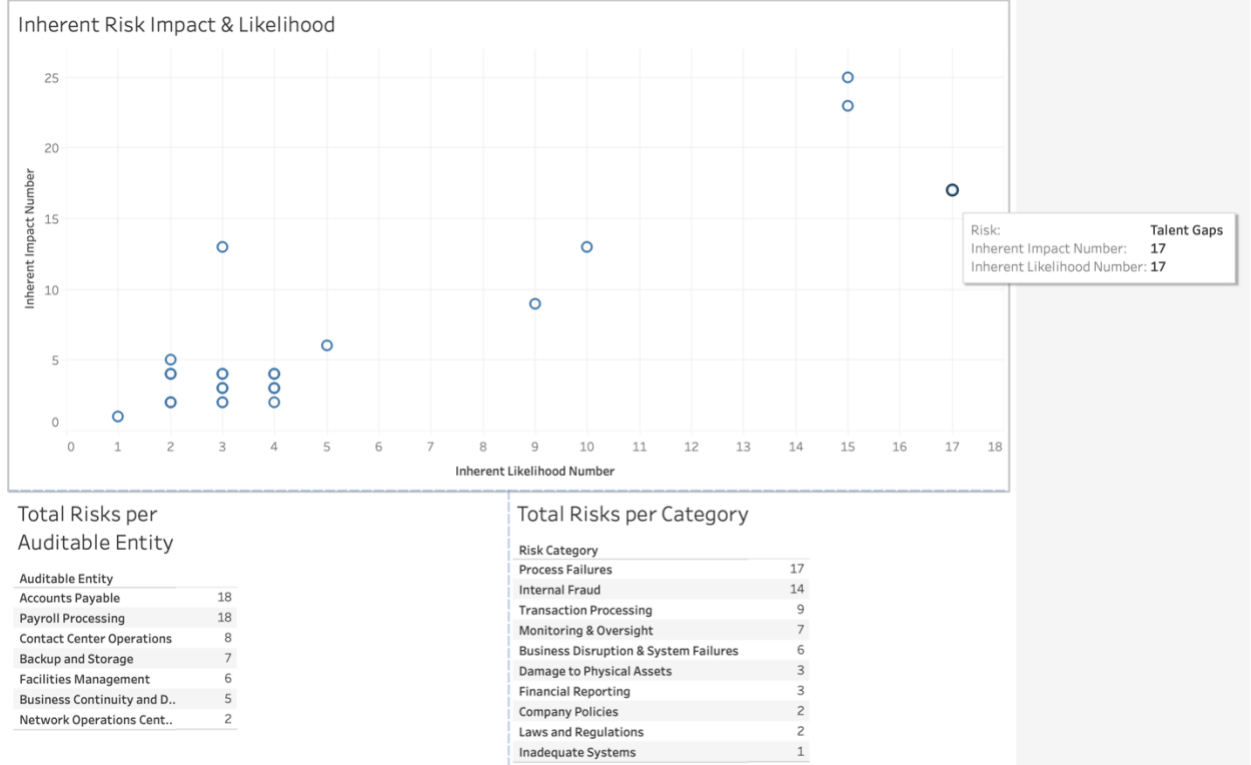
In this chapter, Julia's Cookies had four different datasets, with some similar variables between them, so that they could all be brought together to show some things that no individual dataset could tell you. On the left, you can see which states are getting the most orders and how many stores they have. The two columns are not perfectly correlated, which means that some states are performing better with fewer stores than others with more.

On the right, you can see what cookies are preferred in each state and then the number and dollar amount of each type of cookie sold. The first chart can be very helpful when considering

suppliers and raw materials in different areas. The next two charts can show which cookies bring in the most revenue relative to the amount sold. This can help with choosing to promote certain types or drop types. The difference between cookies is very close, but there is a noticeable dip in peanut butter cookies that should be considered.

Ch. 2: Risks and Risk Assessments

Objective: Determine High Risk Areas of Business

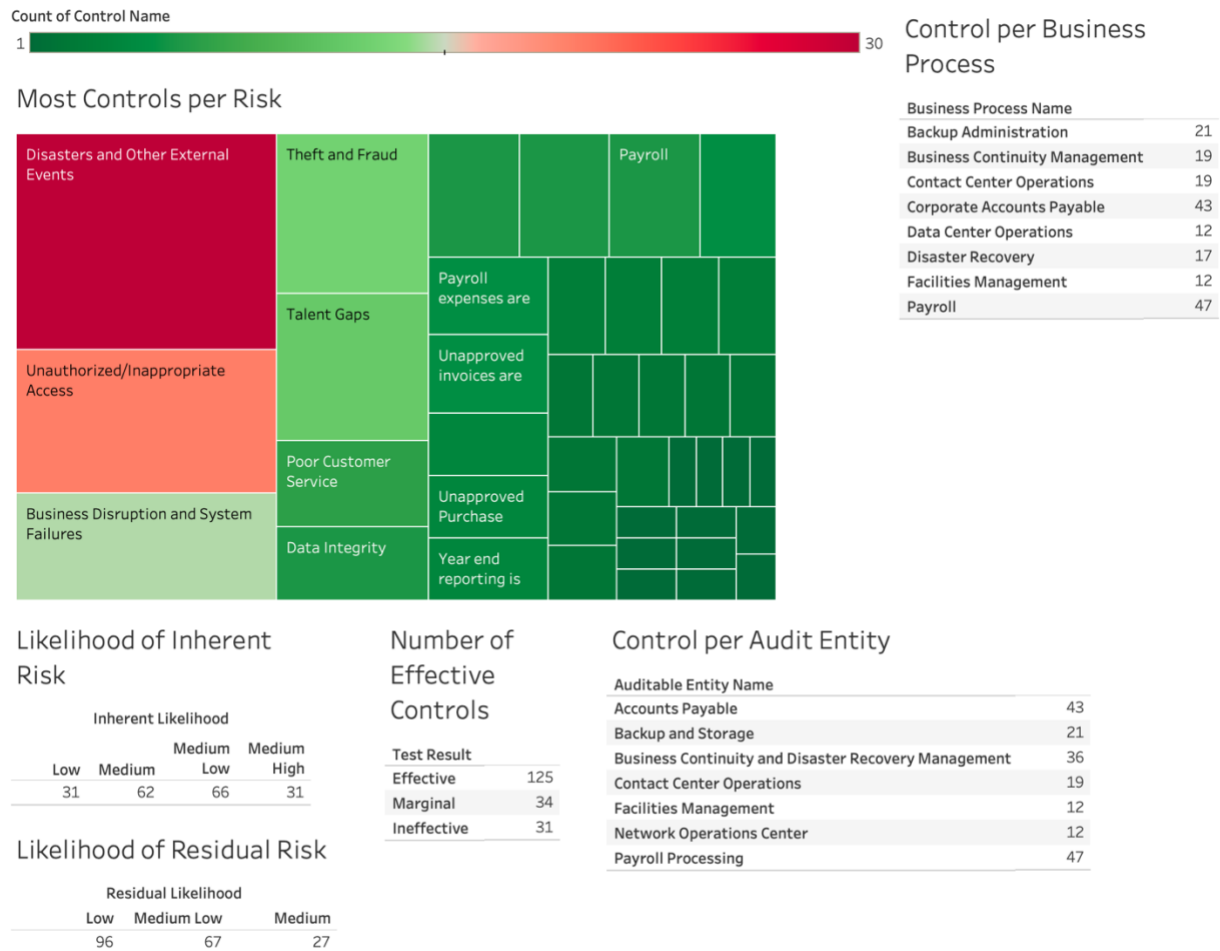


One of the most important things in a business, maybe even before making a profit, is having a handle of the risks involved and the necessary internal controls. Whether it is due to the natural environment, high risks of cyber-attacks, high risks of fraud, or anything else, a company needs to understand the kind of environment they are inhabiting. This is especially important when I company plans on expanding. If they start out with poor internal controls and are not aware of it, then they could continue following bad habits and risky choices that can leave the business on a shaky foundation.

Julia’s Cookies has a good awareness of the risks they are dealing with. You can see in the top chart that they have data on how likely and severe their major risks are. On the far right for most likely is Talent Gap, and the two most severe, which also have a high likelihood are Business Disruption and System Failures and Unauthorized Access. Below are lists categorizing the risks into auditable centers and areas in the business. Having an awareness of what the greatest risks are allows for a proper consideration of how to set up proper controls. It also tells where to prioritize your limited resources.

Ch. 3: Risk Management and Internal Controls

Objective: Determine Whether Internal Controls re Effectively Mitigating Risks



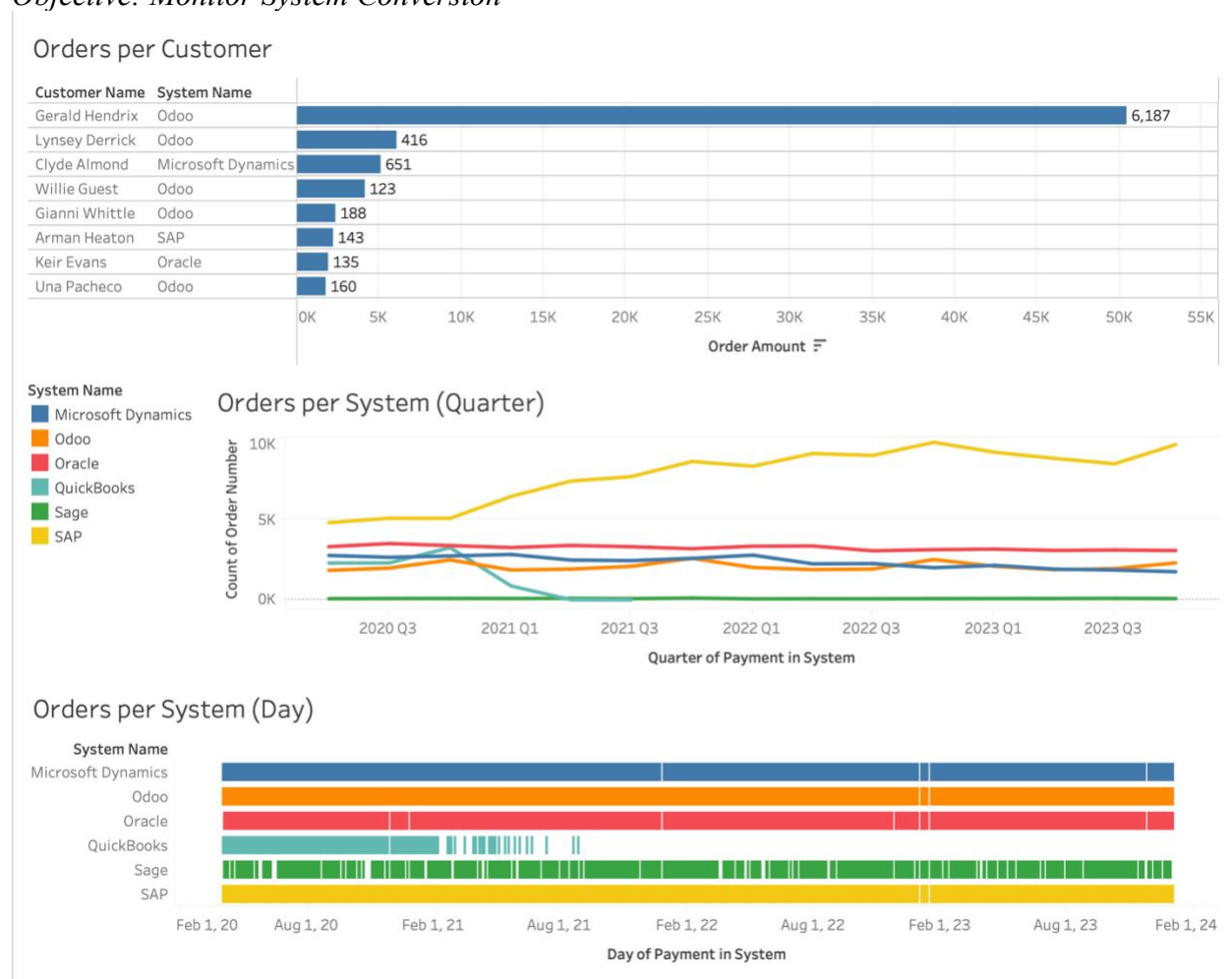
Once risks are known, they can begin to be mitigated by controls. Over on the top left you can see which risks have the most controls aimed to deal with them. The top risk is disasters and other external events. Despite more controls being a good thing, the risks with more controls are presented in red because them needing so many controls is a reason to consider that they are either very likely to occur or will be very bad if they do occur. The next two with the most controls are Unauthorized Access and Business Disruptions and System Failures, which where the top two in severity, and almost the top in likelihood, which explains why so many controls would be devoted to them.

To the right, you can see a chart that shows controls in each business process. Again, more controls means that a particular process is more likely to be affected by a risk or the risk is much more threatening to the company. In this list, you can see that payroll, followed by accounts payable, has a lot of controls. Both of these processes leave a lot of room open to fraudulent activity, so more controls give more confidence that the processes are not being abused. This chart matches up very closely with Control per Audit Entity, which points to the importance this information could have for an auditor trying to test the confidence level of certain processes.

Moving down, you can see inherent and residual risks. Julia's Cookies has a lot of Medium high risks, but after the controls are considered, their highest risks do not go above the medium category. There number of effective controls shows that about two-thirds of the controls are effective, but about one-third is either marginally effective or ineffective. This is an area where Julia's Cookies can either try to reduce costs and cut controls or try to make the controls more effective. It also puts into question how effective the controls are for those tops listed Most Controls per Risk items are. It opens the door for more things to look into and consider with Julia's Cookies.

Ch. 4: Software and Systems

Objective: Monitor System Conversion



One part of a company that can be a big source of risk is the system they use. For a very online integrated company like Julia's Cookies, the proper management of their systems is vital to their business.

The bottom two charts show the six systems that have been used. You can see in the bottom chart around the year 2021 QuickBooks begins to drop in order activity, and by August they stop using it. In the middle chart, you can see that it spiked at the end of 2020, but then pretty quickly drops off in 2021. Sage maintains a low, but consistent number of orders. SAP on the other hand, shows to be greatly increasing above the other systems. It is likely that when QuickBooks dropped off, all that order activity transferred over to SAP.

You can see in the first chart that despite SAP being their largest system, many of their biggest customers are processed on Odoo. This could be that they do not get as many large customers and so they have a special system for processing those types of transactions. This really shows that it takes multiple systems, all with different strengths and weaknesses, to fulfill the needs of a single company.

Ch. 5: Data Storage and Analysis

Objective: Examine IT Issues and Request

Tickets per Day

Month of Date Created	Date Created																
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
March	38	32	43	42	34	30	37	38	41	49	32	47	39	38			
April	41	41	46	46	44	54	41	29	47	41	34	32	23	43			
May	42	44	52	44	36	53	51	31	39	46	40	36	23	36			
June	48	31	47	31	40	47	34	44	41	39	38	31	35	32			
July	43	45	36	319	31	48	44	45	48	40	34	32	37	42			
August	41	39	42	35	46	29	37	33	32	29	38	41	38	41			
September	52	48	28	44	36	30	45	42	53	33	47	39	52	36			
October	40	29	33	31	27	30	41	25	29	44	38	38	44	46			

Types of Tickets in July

Ticket Group	Date Created																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
Security and Governance	10	3	288	7	7	9	12	10	9	10	6	8	11				
Hardware	9	14	7	5	13	8	11	3	12	9	7	8	9				
Architecture	10	10	9	12	7	7	9	13	7	4	8	10	8				
Software	9	4	6	3	12	11	6	12	5	5	2	5	5				
Networking	7	5	9	4	9	9	7	10	7	6	9	6	9				

Number of Issues & Average Days Left Open

Issue Category	Avg. Days Open	
Hardware	10	2,590
Software	7	901
Systems	6	2,598
Access/Login	3	3,774

Tickets per Month

Month of Date Created	
March	1,211
April	1,189
May	1,218
June	1,161
July	1,578
August	1,176
September	1,210
October	1,120

Number of Unsatisfied Requestors by Severity Level

Month of D..	Severity	
May	0 - Unassigned	47
	1 - Low	45
	2 - Medium	31
	3 - High	27

This chapter is about data storage and analyzing that data. The specific dataset is concerning Julia's Cookies' IT Help Desk, the types of issues that came up, how satisfied employees with

the help. The top two charts show a very high-volume day for help desk tickets on July 6th. It specifically had to do with Security and Governance. The likelihood is that there was some companywide attack or hack that was affecting many employees.

In the bottom left is a chart showing two key pieces of information. First, there is the average days a particular type of issue is left open. Second, is the number of times help is requested for a particular type of issue. You can see that the highest number of issues is matched with the lowest number of days. That makes sense because login issues are very common and usually easy to fix. There is a problem with the next highest number of issues because it is matched with the on average longest lasting issues, hardware related issues. It would depend on how restrictive hardware issues are, but this is probably somewhere Julia's Cookies should look. Also, despite Access/Login issues being the quickest to fix, it is still on average three days. If this is getting into your company computer, three days of not being able to do that is a very serious problem. So, even though the numbers do not present the issue as severe, knowing what to look for and the context behind the data can be crucial in finding the most serious problems, especially because in this case this is the largest issue brought to the help desk.

In the context of thousands of requested issues, it would make sense that tens of issues could go unresolved or have unsatisfying results, but even if the number is not especially high, looking at the high and medium severity issues, having over fifty of them with bad results may be an issue that needs to be investigated.

Ch. 6: Designing Systems and Databases

Objective: Identify Help Desk Employee Patterns

Login/Access Issues by
Department

Department	Issue Category Access/Login
Sales	927
Customer Service and Contact Center	837
Contingent	772
Information Technology	439
Operational Support	178
Accounting	173
Legal/Compliance	119
Marketing	108
Finance	51
Administrative Support	47
Human Resources	36

Finance Employees
Unsatisfied with
Helpdesk

Department	Requestor Stat..	
Finance	1 - Unsatisfied	10

Tickets from
Employees Hired
in the Last Two
Years

Year of Date Created	
2022	2,493

Investment
Employees with
Medium Level Issues

Department	Severity	
Investments	2 - Medium	1

Percent of Tickets per Location

Office Location	
Main Campus - Chicago	38.47%
Secondary Campus - Atlanta	12.14%
Stores	24.28%
Work From Home - Remote	25.11%

Tickets Currently
Open for Accounting
Department

Department	Ticket Status	
Accounting	Open	296

Percent of Tickets
by Employee Type

Employee Type	
Consultants	4.42%
Full time	63.41%
Intern	0.08%
Part time	15.91%
Seasonal	14.09%
Temporary Worker	2.09%

Dates of Most Marketing Tickets

Department	Day of Date..	Date Created									
		March	April	May	June	July	August	Septemb..	October		
Marketing	1	1	2		4		1	1	1		
	2	1	2			2	2		1		
	3	2	1	2		1	1	2	2		
	4		1		1		1	2	1		
	5	2	1	2	1	3	1	2			
	6	1	1	4		12	3	1	1		
	7	4	1		1	1	4	1			
	8	1	1		2	2	2				
	9	2		3	2	2	1			1	
	10	1	1	1		2	1				
	11	1	3	2	2	2	2	2	1		
	12	1	2	1	1	1	1	1			
	13	1	1	3	2		3			1	
	14	4	3	1	2	3		2	2		
	15	3		1			2				
	16	1	3	2		2					
	17	2	2	2	3	3	1	2			
	18		2	2			1	1			

In this dataset, in the chapter of designing systems and databases, there were two separate files that needed to be joined together on variables of similar type, but with different names. This dataset goes further into the issues facing the IT Help Desk. This is important to accounting because working with information means working with technology and being able to have good communication between IT and every other department is crucial for the efficiency of the business.

This particular dashboard has less visually appealing charts, but they all give insight to very specific parts of Julia's Cookies. Previously, we saw that the majority of helpdesk issues were with Access/Login. In the top left is a list of which departments are facing this problem the most. The top two are Sales and Customer Service. Both of these departments are focused on interacting with the customer, so it does not look good for a company to perform poorly in either, let alone both. Considering that on average the issue lasts three days, this could inhibit and even lose sales. On the other side, customers may not be able to get in contact with customer service if they are not able to access the company system so this could hurt the future sales from potential repeat customers.

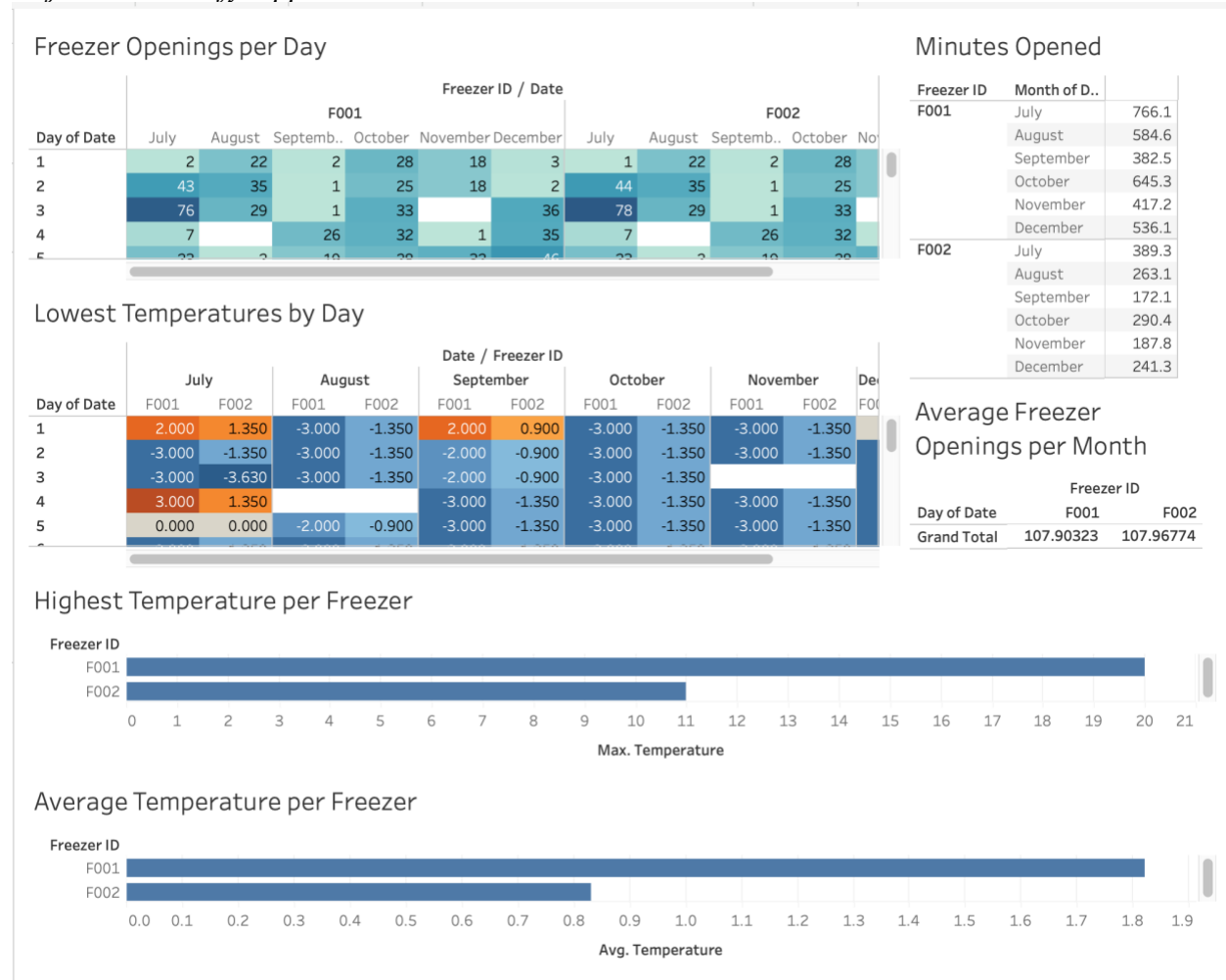
In the chart directly below, you can see that in the accounting department there are currently 296 open tickets. These are not of any specific type, but this does mean that IT is presently in the process of trying to fix close to 300 different problems in just a single department, which is devoted to properly recording transactions, paying employees, paying suppliers, and making sure money is coming into the business. This is a red flag that should be investigated.

At the bottom left is the percent of issues reported to IT by employee type. This data does make sense. The longer an employee spends somewhere the more likely an issue will occur, and the percentages seem to agree with that idea.

The remaining charts all give bits of insight into issues across different departments. They show dissatisfaction with the help desk in the finance department, medium severity tickets in investment, tickets from more recent employees, and a visualization of where issues occur across the year for the marketing department. Each one of these raises a different possible concern with the business and is a starting point to further examine Julia's Cookies data.

Ch. 7: Emerging and Disruptive Technologies

Objective: Identify Opportunities to Minimize Food Waste Costs

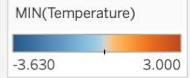


This chapter focuses on emerging and disruptive technologies, one of which is the Internet of Things (IoT). The IoT allows you to connect anything from your lights to your appliances, like ovens and fridges, to the internet to control and monitor from anywhere, and to set up routine processes in your different “Things”.

Julia’s Cookies is able to track their freezer activity and temperatures and record that data so that it can be used to their advantage. To the top right, there is a chart listing out the minutes each fridge is open each month. The highest time open for fridge one (F001) is July, which is one of the hottest months of the year. The longer the freezer is open and the hotter the outside environment, the more it will cost to keep everything inside cool. While freezer two (F002) is only open half as much as freezer one, it is still open the most in July. This may be because orders could be higher in the summer months, but it may also be something that could be reduced. On average, both freezers are opened about 107 times each month. The bottom two bar charts show that freezer one had a higher max temperature and a higher average temperature than freezer two. There may be limits on how much open time and times opened can be reduced, but it could be worth looking into further if it means reducing costs.

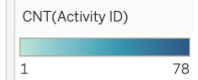
Lowest Temperatures by Day

Day of Date	Date / Freezer ID											
	July		August		September		October		November		December	
	F001	F002	F001	F002	F001	F002	F001	F002	F001	F002	F001	F002
1	2.000	1.350	-3.000	-1.350	2.000	0.900	-3.000	-1.350	-3.000	-1.350	0.000	0.000
2	-3.000	-1.350	-3.000	-1.350	-2.000	-0.900	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
3	-3.000	-3.630	-3.000	-1.350	-2.000	-0.900	-3.000	-1.350			-3.000	-1.350
4	3.000	1.350			-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
5	0.000	0.000	-2.000	-0.900	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
6	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
7			-3.000	-1.350	-3.000	-1.350			-3.000	-1.350	-3.000	-1.350
8	-1.000	-0.450	-3.000	-1.350			-3.000	-1.350	-3.000	-1.350		
9	-2.000	-0.900	-3.000	-1.350	0.000	0.000	-3.000	-1.350	-3.000	-1.350		
10	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350			-2.000	-0.900
11	-3.000	-1.350			-3.000	-1.350	-2.000	-0.900	1.000	0.450	-3.000	-1.350
12	-3.000	-1.350	1.000	0.450	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
13	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-1.000	-0.450	-3.000	-1.350	-3.000	-1.350
14			-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
15	-2.000	-0.900	-3.000	-1.350	0.000	0.000	-3.000	-1.350	-3.000	-1.350	-2.000	-0.900
16	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	0.000	0.000
17	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	0.000	0.000	-3.000	-1.350
18	-3.000	-1.350			-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
19	-2.000	-0.900			-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350
20	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350			-3.000	-1.350	-3.000	-1.350
21	0.000	0.000	-3.000	-1.350	-3.000	-1.350	-2.000	-0.900	-2.000	-0.900	-2.000	-0.900
22			-3.000	-1.350	2.000	0.900	-3.000	-1.350	-1.000	-0.450		
23	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350		
24	-3.000	-1.350	-2.000	-0.900	-3.000	-1.350	-3.000	-1.350				
25	-3.000	-1.350			-3.000	-1.350	-3.000	-1.350	-2.000	-0.900	-3.000	-1.350
26	-3.000	-1.350	0.000	0.000	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350	-2.000	-0.900
27	-3.000	-1.350	-3.000	-1.350	-3.000	-1.350			-3.000	-1.350	-3.000	-1.350
28	1.000	0.450	-3.000	-1.350	-3.000	-1.350	1.000	0.450	-3.000	-1.350	-3.000	-1.350
29	3.000	1.350	-3.000	-1.350			-3.000	-1.350	-3.000	-1.350	0.000	0.000
30	-3.000	-1.350	-3.000	-1.350			-3.000	-1.350	-1.000	-0.450		
31	-3.000	-1.350	-2.000	-0.900			-2.000	-0.900			-3.000	-1.350



Freezer Openings per Day

Day of Date	Freezer ID / Date											
	F001						F002					
	July	August	Septemb..	October	November	December	July	August	Septemb..	October	November	December
1	2	22	2	28	18	3	1	22	2	28	18	3
2	43	35	1	25	18	2	44	35	1	25	18	2
3	76	29	1	33		36	78	29	1	33		36
4	7		26	32	1	35	7		26	32	1	35
5	23	2	19	28	32	46	23	2	19	28	32	46
6	27	35	21	3	31	34	27	35	21	3	31	34
7		22	27		24	31		22	27		24	31
8	3	18		30	26		3	18		30	26	
9	14	23	3	31	18		14	23	3	31	18	
10	15	18	24	38		30	15	18	24	38		30
11	22		20	27	2	28	22		20	27	2	28
12	21	1	21	25	20	36	21	1	21	25	20	36
13	16	30	31	2	25	28	16	30	31	2	25	28
14		49	16	17	32	22		49	16	17	32	22
15	9	22	2	33	22	2	9	22	2	33	22	2
16	28	25	2	17	14	1	28	25	2	17	14	1
17	22	15	27	17	1	48	22	15	27	17	1	48
18	22		35	15	2	47	22		35	15	2	47
19	20		19	16	38	35	20		19	16	38	35
20	15	38	33		23	22	15	38	33		23	22
21	2	36	32	4	12	9	2	36	32	4	12	9
22		21	1	23	1			21	1	23	1	
23	24	26	5	30	3		24	26	5	30	3	
24	19	27	23	23			19	27	23	23		
25	13		26	19	1	1	13		26	19	1	1
26	21	3	15	26	20	25	21	3	15	26	20	25
27	17	33	25		25	24	17	33	25		25	24
28	2	36	36	2	23	12	2	36	36	2	23	12
29	1	9		49	32	1	1	9		49	32	1
30	27	29		18	12		27	29		18	12	
31	34	19		32		7	34	19		32		7



I isolated these two charts because in this format you cannot scroll up and down like you can in the dashboard. The bottom chart shows that the times opened are fairly consistent in those warmer months, except for a couple specific days where they were opened many more times. So, it should really be those few days that are investigated to try to mitigate the freezer activity.

The top chart compares daily minimum temperatures between the freezers. What is most interesting is that while freezer one tends to reach a lower temperature during most days, it also spends many more days with a much higher minimum than freezer two. This is likely because freezer one needs to be left open more. They probably keep it colder to offset the amount of time it is left open, but on some days the activity forces the temperature up.

Reducing costs and freezer activity will really depend on the store environment. There may be very little that can be done, but freezer electricity costs are a major part of overhead, and the numbers raise questions that are worth investigating.

Ch. 8: Documenting Systems and Processes

Objective: Evaluate the Migration of Sales Data from Source Data to ERP Module

Matching IDs

Transaction ID (ERP)	Transaction ID
0C6C7B55-60A5-E811-80..	0C6C7B55-60A5-E811-80..
0C6C7B55-60A5-E811-80..	0C6C7B55-60A5-E811-80..
0C6C7B55-60A5-E811-80..	0C6C7B55-60A5-E811-80..
0C6C7B55-60A5-E811-80..	0C6C7B55-60A5-E811-80..
1A91EA52-5494-E911-80..	1A91EA52-5494-E911-80..
1A91EA52-5494-E911-80..	1A91EA52-5494-E911-80..
1A91EA52-5494-E911-80..	1A91EA52-5494-E911-80..
1A91EA52-5494-E911-80..	1A91EA52-5494-E911-80..
1A91EA52-5494-E911-80..	1A91EA52-5494-E911-80..
1B1D504C-C336-E911-80..	1B1D504C-C336-E911-80..
1B1D504C-C336-E911-80..	1B1D504C-C336-E911-80..
1B1D504C-C336-E911-80..	1B1D504C-C336-E911-80..
1B1D504C-C336-E911-80..	1B1D504C-C336-E911-80..
1B1D504C-C336-E911-80..	1B1D504C-C336-E911-80..
1ED8015F-4340-E911-80..	1ED8015F-4340-E911-80..
1ED8015F-4340-E911-80..	1ED8015F-4340-E911-80..
1ED8015F-4340-E911-80..	1ED8015F-4340-E911-80..
1ED8015F-4340-E911-80..	1ED8015F-4340-E911-80..
2B8CD8B4-408C-E811-80..	2B8CD8B4-408C-E811-80..
2B8CD8B4-408C-E811-80..	2B8CD8B4-408C-E811-80..
2B8CD8B4-408C-E811-80..	2B8CD8B4-408C-E811-80..
2B8CD8B4-408C-E811-80..	2B8CD8B4-408C-E811-80..
2D2FB15E-1B44-E911-80..	2D2FB15E-1B44-E911-80..
2D2FB15E-1B44-E911-80..	2D2FB15E-1B44-E911-80..
2D2FB15E-1B44-E911-80..	2D2FB15E-1B44-E911-80..
2D2FB15E-1B44-E911-80..	2D2FB15E-1B44-E911-80..
2E260495-D4BD-E811-80..	2E260495-D4BD-E811-80..
2E260495-D4BD-E811-80..	2E260495-D4BD-E811-80..
2E260495-D4BD-E811-80..	2E260495-D4BD-E811-80..
2E260495-D4BD-E811-80..	2E260495-D4BD-E811-80..
3C3CB5A4-4340-E911-80..	3C3CB5A4-4340-E911-80..
3C3CB5A4-4340-E911-80..	3C3CB5A4-4340-E911-80..
3C3CB5A4-4340-E911-80..	3C3CB5A4-4340-E911-80..
3C3CB5A4-4340-E911-80..	3C3CB5A4-4340-E911-80..
4CA67FE7-B64C-E911-80..	4CA67FE7-B64C-E911-80..
4CA67FE7-B64C-E911-80..	4CA67FE7-B64C-E911-80..
4CA67FE7-B64C-E911-80..	4CA67FE7-B64C-E911-80..
4CA67FE7-B64C-E911-80..	4CA67FE7-B64C-E911-80..

Source Data

Exclusive

Transaction IDs (SD)	48
----------------------	----

Source Data

Exclusive by State

State	
CA	40
CO	4
TX	4

Amount Paid for

Source Data

Exclusive

Amount Paid (SD)	1,503
Count of Transaction ID	48

Total Dollar

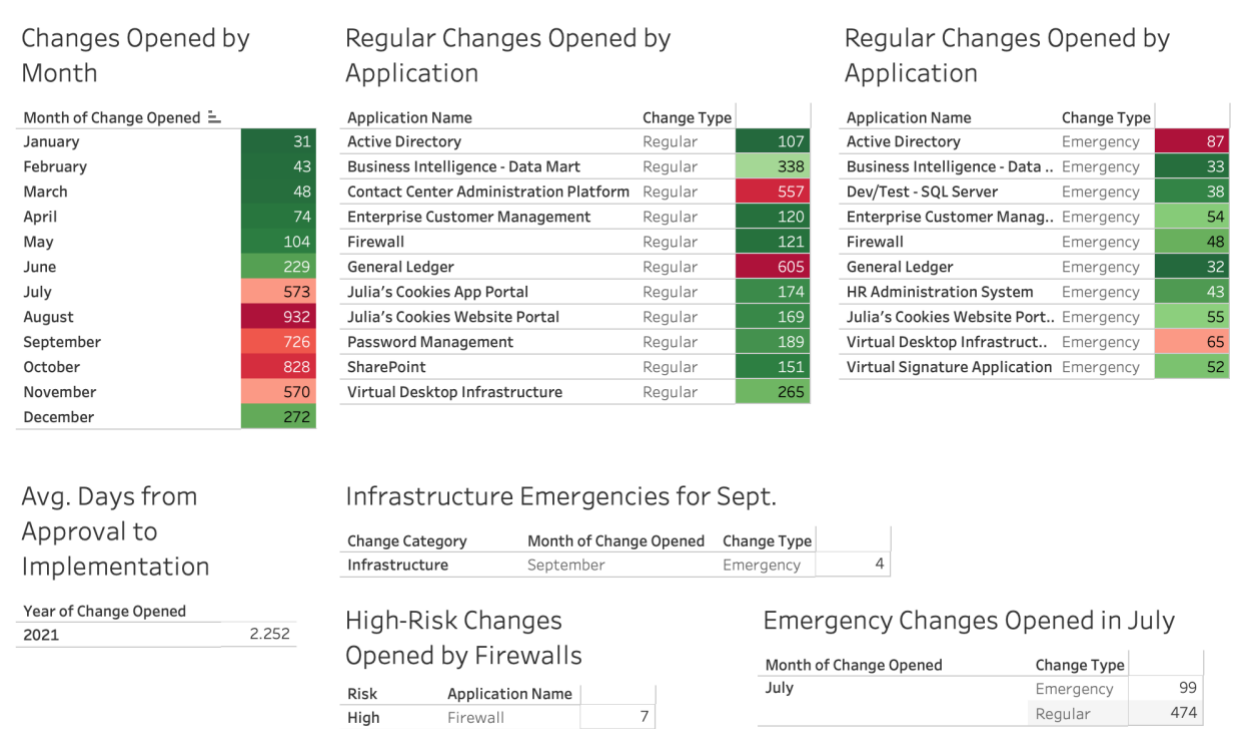
Amount Paid

Amount Paid (ERP)	11,526
Amount Paid (SD)	12,990

In this case, two datasets needed to be joined together. One was the companies source data and the other went through the ERP system. The left list shows all the IDs that were present in both datasets. In the top left, it shows that the source data contained 44 additional Transaction IDs that ERP did not have. The next chart down shows that most of those transaction IDs were from California, which makes sense since California has the most stores and orders. In the bottom chart, you can see a slight discrepancy between the total cost in the source data compared to the ERP system. It makes sense that the ERP system would be lower since it was missing so many transactions. If you add back in the transactions, it puts the number at \$13,029, which is just \$39 off. Depending on how material Julia’s Cookies considers that discrepancy they may want to investigate why the difference occurred, but it is not a significant amount of the total, so it may not be worth analyzing.

Ch. 14: Information Systems and Controls

Objective: Analyze System Change Patterns



Avg. Days from Approval to Implementation

Year of Change Opened	
2021	2.252

Infrastructure Emergencies for Sept.

Change Category	Month of Change Opened	Change Type	
Infrastructure	September	Emergency	4

High-Risk Changes Opened by Firewalls

Risk	Application Name	
High	Firewall	7

Emergency Changes Opened in July

Month of Change Opened	Change Type	
July	Emergency	99
	Regular	474

This case is analyzing Julia’s Cookies’ changes made in their system. When it comes to system changes, having good records of when something was changed, what was changed, and some context around the change can be a great control for the system.

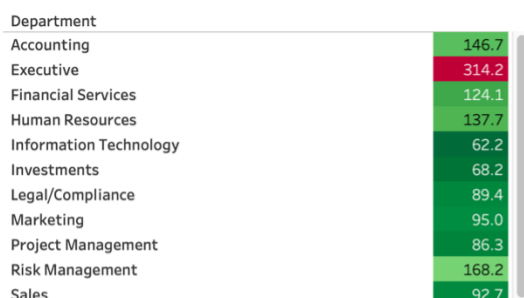
In the top right chart, there is clearly very high change activity in the late summer and fall months. If their fiscal year is in June, then that may be some reason to see a bit of a spike, but something this major is definitely a red flag that should be investigated. Even if all the changes were approved and valid, the sheer number of them means that there is a much higher risk of

mistakes being made in the changes. In the next chart over, it shows that the majority of changes were made in the General Ledger and Contact Center Administration Platform. It would make sense to see changes made to the General Ledger, but with such a high number it should raise a flag to make sure that the transactions are valid.

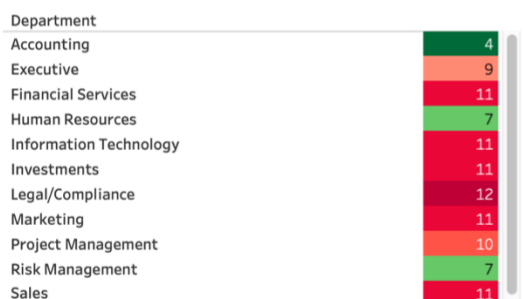
Ch. 15: Fraud

Objective: Analyze Fraud Red Flags in Expense Reports

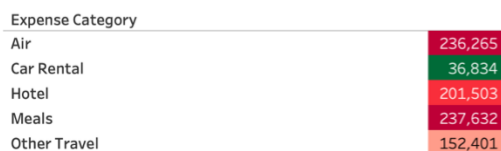
Avg. Highest Transactions by Department



Unique Expenses by Department



Highest Total Transactions by Expense Category



Employees Self Approving

Approver N..	Approver Employee Num..	Employee Name	Employee Num..
Abbott, Becky	EE077237	Appling, Patricia	EE077961
		Goyer, Patrick	EE075192
		Harmon, David	EE078046
		Sanders, Quinn	EE078699
		Todorova, Amy	EE074606
Alexander, ..	EE078263	Trammell, Mary	EE071901
		Wood, Kotaro	EE078265
		Bobo, Delbert	EE075472
		Carrier, Gerald	EE078334
		Humphrey, Greg	EE075462
Alley, Timothy	EE075449	Yoder, Brandon	EE076062
		Anbazagan, Daniel	EE071741
		Cioci, Kelley	EE076127
		Del Campillo, J..	EE076128
		Antaillia, D..	EE073250
Baker, Cass..	EE076770	Howell, Ray	EE079556
		Krasznai, Kend..	EE079508
		Bail, Tune	EE074500
		Siqueiros, Chri..	EE077119
		Bell, Charles	EE076006
		Casaceli, Alan	EE079161
		Dow, Kevin	EE079304
		Merkle, Bruce	EE078044
		Mills, Andrew	EE077101
		Parks, Praveen	EE078054
		Porter, Kendall	EE079899
		White, Hugo	EE076252
		Bennett, M..	EE071358
		Oliveira, Rober..	EE075944
		Bermudez, Jayme	EE079226
		Crook, Brandon	EE073468
		Wilson, April	EE074439
		Bilodeau, Douglas	EE076800
		Ford, Keiunna	EE076936
		Grote, Graciela	EE076937
		Jacob, Kyle	EE078423
		Bolen, Tess	EE072278
		Bonerbo, R..	EE079923
		Sherman, Andre	EE079946
		Bouslog, Ra..	EE001711
		Malter, Forrest	EE073933
		Brand, Murali	EE077881
		Budzynowski, ..	EE078332
		Crisman, Arun	EE079145
		Hiatt, Chris	EE078338

Fraud is the intentional misrepresentation of material fact. In Julia's Cookies' case, they are concerned with employees inappropriately getting reimbursements. On the chart in the top left, it shows that on average executives are spending close to double any other department. Having reached such a level, it is possible that executives could be abusing their benefits. People are inclined to spend money when they get a raise or promotion, and so it is even more important to be mindful of the behavior of executives. They may try to present themselves as a higher status, but if they are living beyond their means, it could be a sign that they are committing fraud.

The next chart down shows unique expenses by department. There are so many unique expenses in each department that it would require digging more into the expenses to see if there are any signals of fraud being a likely possibility.

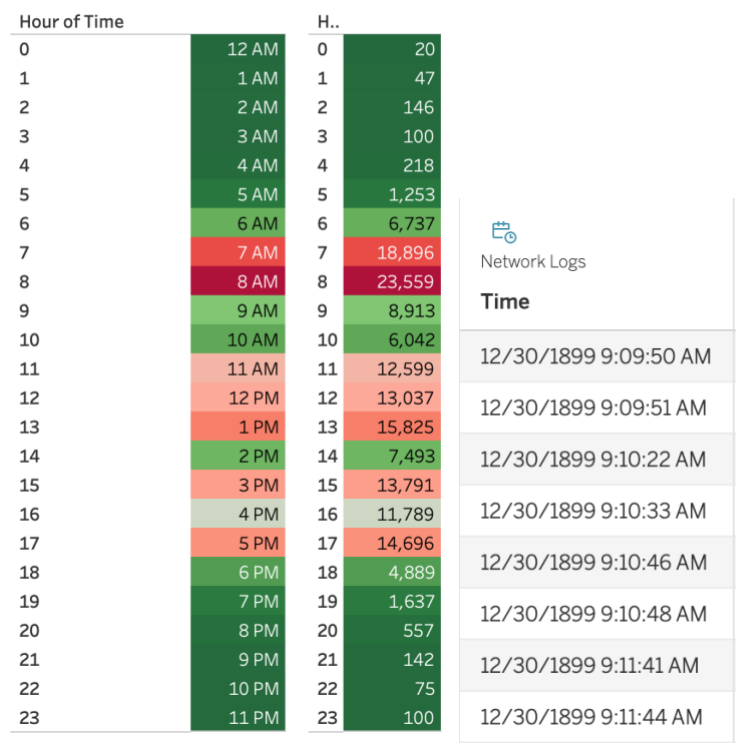
The bottom chart shows the total amount spent in each expense category. Travel, meals, and hotels are the major expenses that a company will pay for their employees. They are not a red flag in and of themselves, but it is important to be mindful of the accounts because this is a very common area for fraud.

The chart on the left lists employees requesting reimbursement approval and the one who approved it. Highlighted is Tess Bolen, who not only approved herself but is not a typical approval because she has only ever approved herself. This is an immediate red flag. Julia’s Cookies requires more layers of approval and does not allow anyone to approve themselves, so this is reason for an investigation to begin. There may be some explanation that Tess approved herself other than fraud, such as management override, but even then, it is something that still weakens the internal controls of the company.

Ch. 16: Cybersecurity

Objective: Identify Suspicious Network Login Activity

Network Logins per Hour



In this case, we are analyzing Julia’s Cookies Cybersecurity. In these columns in the chart to the left it shows where most of the logins take place. It seems reasonable that most of the logins are

in the morning because that is normally when people get into work and log into the system. As you move away from the normal work day, log in times drop significantly. There are still logins at all hours of the day. It is not odd that, throughout the year, people will end up working late or early. Still, logins at these times are a sign that there is a possible cybersecurity threat. Unfortunately, when the time data was moved from the excel dataset to tableau, all the values automatically became what is shown in the picture to the right. The time values were still present and usable, but trying to connect it to a month, year, or day was no longer possible. Since the date factor was not supposed to be part of that variable, there is a separate date that the time can be connected to, but since the time also include a date, the data will not mix together.

Network Entry by Country

Country	
Russia	39
United States of America	162,522

The chart above lists the number of times the network was logged into by someone outside the United States. All the entries were by Russia, and it was very few compared to the amount inside the United States. Despite the small number, it would be smart to make sure that all systems are up-to-date, and all passwords are changed since the date of the last Russian entry. While these entries may not have done anything harmful, they are a good reminder that risks can be from even thousands of miles away and can come in unexpected ways. For this reason, a company should always be aware of how their organization is situated in the environment around them, the risks involved, and what controls they can use to mitigate those risks.