



# Digital Systems

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2.1 Digital Product Management &  
Max Lab 1a|1b

**FOX**  
**MIS**

# ROADMAP

START

## Week 1:

### Introduction & Systems Analysis

- Course Description
- Systems Thinking

## Week 2:

### Digital Product Management & Introduction to Process Mapping

- Max Labs 1a & 1b
- Systems & Processes
- Swim Lane Diagrams

## Week 3:

### Data Modeling with Entity Relationship Diagrams

- Swim Lane Diagrams
- ERD Diagrams

## Week 4:

### Digital Systems – Learn IT! #1

- ERD Diagrams
- Learn IT Kickoff

## Week 5:

### Exam #1, Max Labs & Information Systems: Part I & II

- CRM & ERP

## Week 9:

### Exam #2 & JavaScript Unit #1

- Parts I & II
- Hello World, Variables

## Week 8:

### Information Systems & Cybersecurity

- Protection Protocols
- Artificial Intelligence

## Week 7:

### Platforms & Digital Business Models: Part I & II

- Platforms & Digital Models
- APIs

## Week 6:

### Information Systems: Parts I - III

- Data Analytics
- SCM

## Week 10:

### JavaScript Unit #2 Functions

- Values & Variables
- Operator types
- Strings

## Week 11:

### JavaScript Unit #3 Logical Operators & Conditional Logic

- Logical Operators
- Conditional Types

## Week 12:

### JavaScript Unit #4 Loops

- Intro to Loops
- While and Do

## Week 13:

### JavaScript Unit #4 Working with Loops & HTML & CSS Unit

- Writing the code
- HTML & CSS Basics

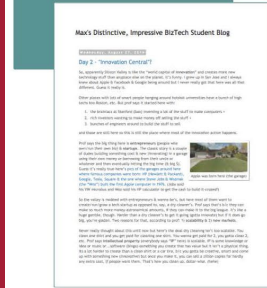
## Week 14:

### HTML & CSS Unit (continued)

- HTML & CSS Basics
- Course Reflection

FINISH

# Business Systems Innovation Labs Pre-lab Pre-flight Checklist



## "Distinctive, Impressive BizTech Student Blog" (Backstory)

SJSU Business Systems student Max sets out to blog her class, stumbles into a startup adventure, and invites you to follow along.

Prep: What do you need to start?

To get the most out of this pre-lab, you need a healthy curiosity, a sense of humor and a little imagination. Focus, read for understanding, and put yourself in Max's shoes so you don't just read it—you *experience* it.

# Assignment 3: Max Labs 1a/1b

Spring 2022

**Deadline: Monday  
January 24 by 8:00 PM**

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# Business Systems Innovation Labs Pre-lab Pre-flight Checklist



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# Max Labs - Pre-Flight

Digital Product Management

**FOX**  
**MIS**

# Max Labs – Pre-Flight Discussion

What are some of your takeaways?

- ❖ Professional Development
- ❖ Business & Digital Business Models
- ❖ Data/Databases/Apps/Platforms



Source: <https://medium.com/@adpokets/creative-strategy-for-digital-marketing-with-business-ideas-b55587cdb876>

# Max Labs – Pre-Flight Discussion

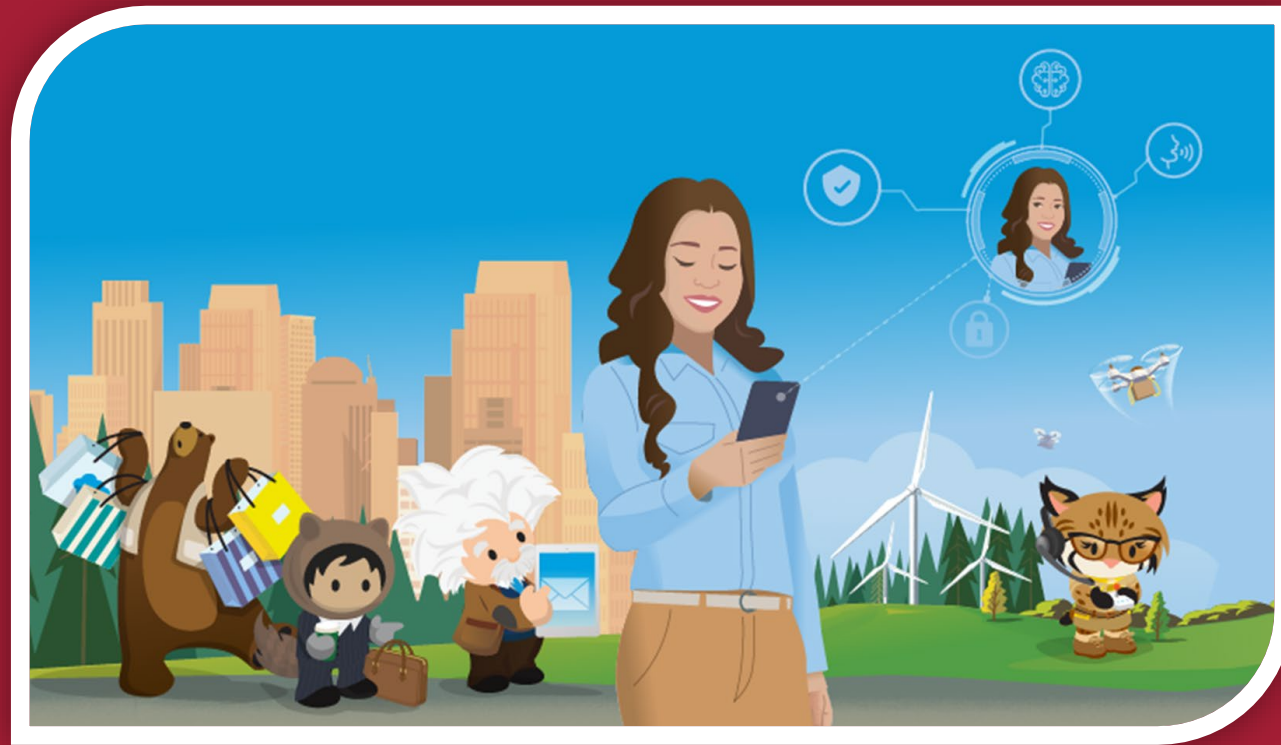
Terminologies that Max learns:

- ❖ Entrepreneurs
- ❖ Startups
- ❖ Unicorn
- ❖ Intellectual Property (IP)
- ❖ Disruptive Technology
- ❖ B2B and B2C
- ❖ Minimum Viable Product (MVP)



Source: <https://medium.com/@adpokets/creative-strategy-for-digital-marketing-with-business-ideas-b55587cdb876>

# The Max Labs Project



## Overview & Startup

# Why Salesforce?

- ❖ This is not Salesforce training – it is exposure to a great platform that delivers *cloud-based systems products*.
- ✓ Enables & Enhances Business
- ✓ Used By Industry Fortune 100's
  - Across All Business functional Areas
- ✓ Great Resume Builder For You!

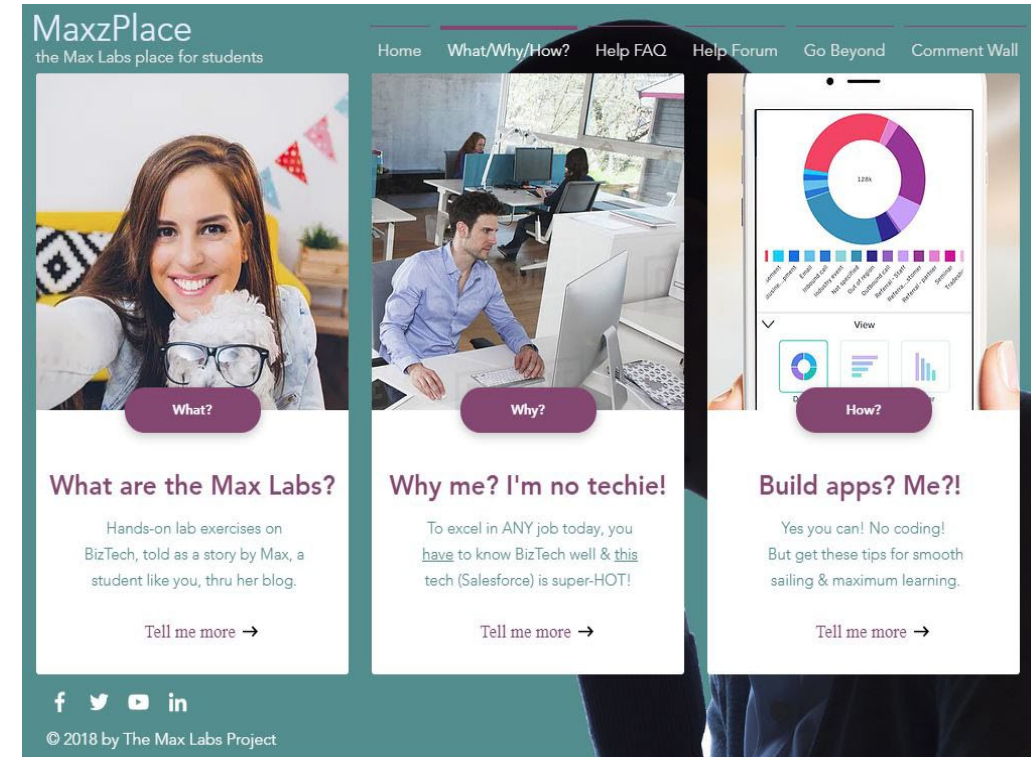


Source: <https://www.salesforce.com/>



# Max Labs – Tips for Your Success

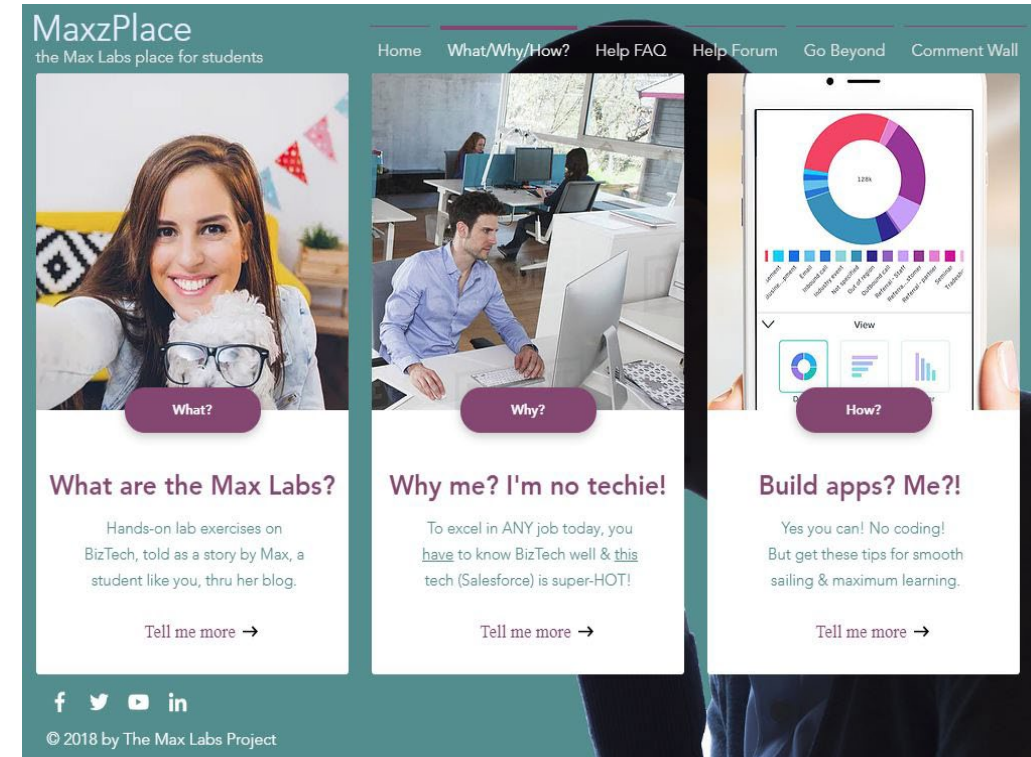
- ❖ READ the Pre-lab first. (Set's up your entire experience.)
- ❖ READ & FOLLOW every single instruction EXACTLY, in order. (You'll have no problems.)
- ❖ READ the cover sheet BEFORE you start every lab.



Source: <https://www.maxzplace.com/what>

# Max Labs – Tips for Your Success

- ❖ ALWAYS read stories BETWEEN instructions. (Connections to our key Course Concepts)
- ❖ They're quick (allow about 60-90 min for each lab)
- ❖ **DO NOT** get the 30-day trial account from [www.salesforce.com](http://www.salesforce.com).



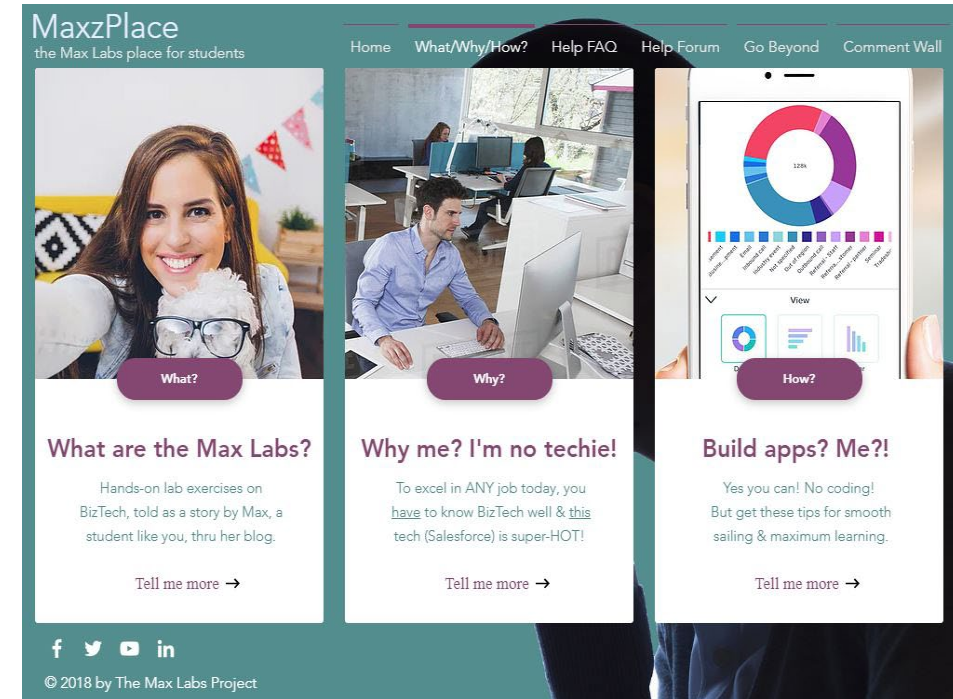
Source: <https://www.maxzplace.com/what>

# Max Labs – Tips for Your Success

- ❖ The **Lab 1b** instructions tell you **EXACTLY** how to pay the **lab fee**. (Just follow them)
- ❖ **DO NOT** use AOL/Yahoo! for your Salesforce account email. (Use your personal Gmail)
- ❖ If you're stuck, **FIRST** check the Help FAQ at

✓ [MaxzPlace.com](https://www.maxzplace.com)

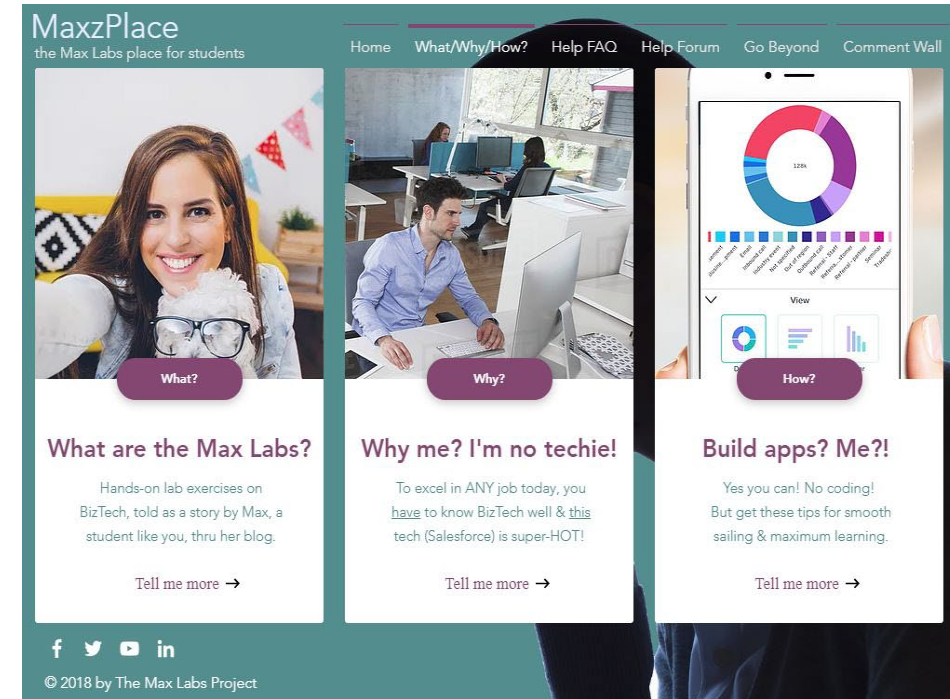
✓ [Help FAQ](#)



Source: <https://www.maxzplace.com/what>

# Max Labs – Tips for Your Success

- ❖ BE SURE to Install the [Max Labs Grader App](#). You have an opportunity to fix your mistakes before submitting...no reason not to get a perfect score!
- ❖ They're on the exams (w/un-guessable questions)
- ❖ They'll help you get a job (IF you can explain what you did/learned)



Source: <https://www.maxzplace.com/what>

# Max Labs – Let's Get Started!!!

## 1. Download the Pre-lab PDF

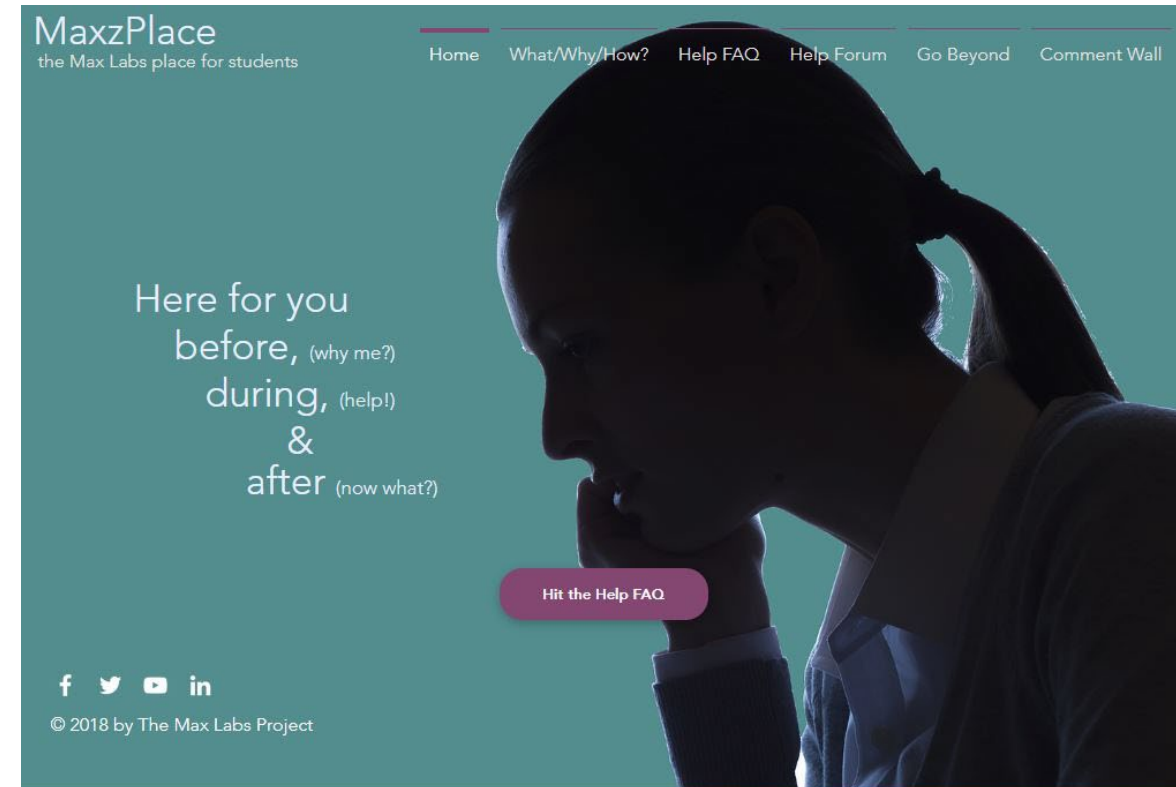
- i. Read the cover sheet at the top: Pre-lab LOs + details of how the rest will work
- ii. Read the rest (5 blog postings, 10 min max!)

## 2. Download the Lab 1a PDF

- i. Read the cover sheet at the top: Lab 1a LOs + deliverables + important setup info
- ii. Read the rest (one blog posting), following Max's instructions (1hr +/-), use the grader app, capture your certificate, add to answer sheet —nothing else needed

## 3. Download the Lab 1b PDF

- i. Read the cover sheet....
- ii. ...



Source: <https://www.maxzplace.com/what>

# Process Mapping

# Process Mapping

## What

- Visual Representation

## Why

- Identify Problems

## How?

- Draw the “as-is”

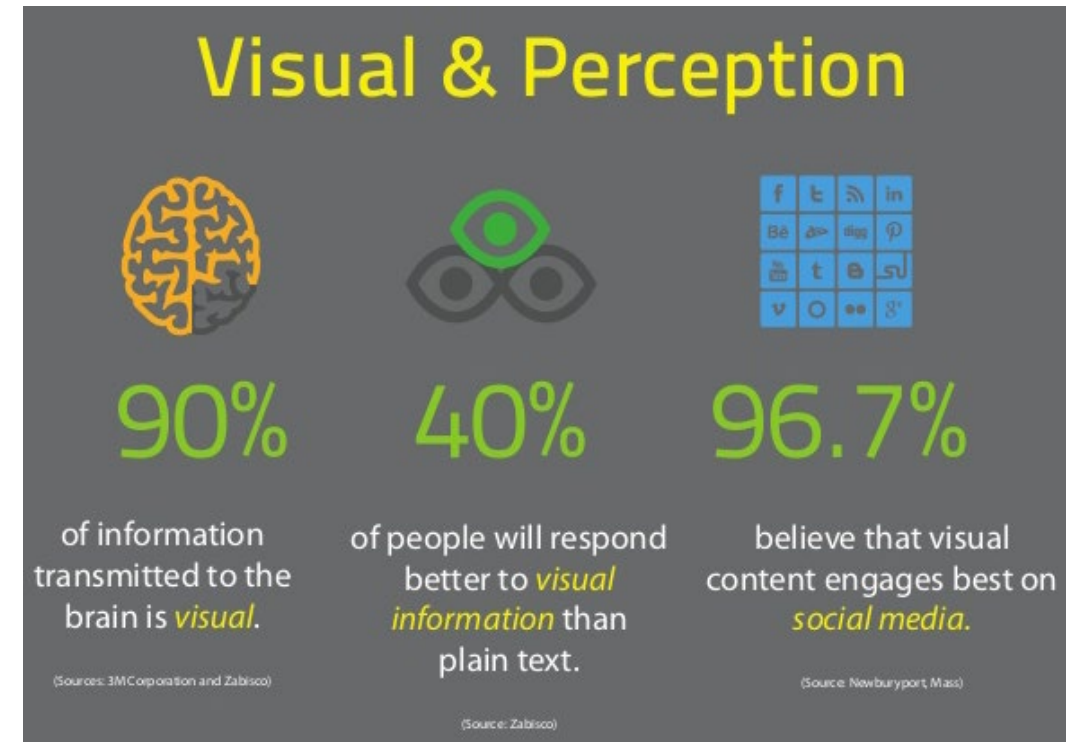


Source: <https://creately.com/blog/diagrams/process-mapping-guide/>

# What's a Picture Worth?

## How about a diagram???

- How fast does the brain process images?
- 70% of your sensory receptors are in your eyes
- 50% of your brain is active in visual processing



Source: <https://tax.thomsonreuters.com/blog/the-importance-of-visual-content-marketing-infographic/>

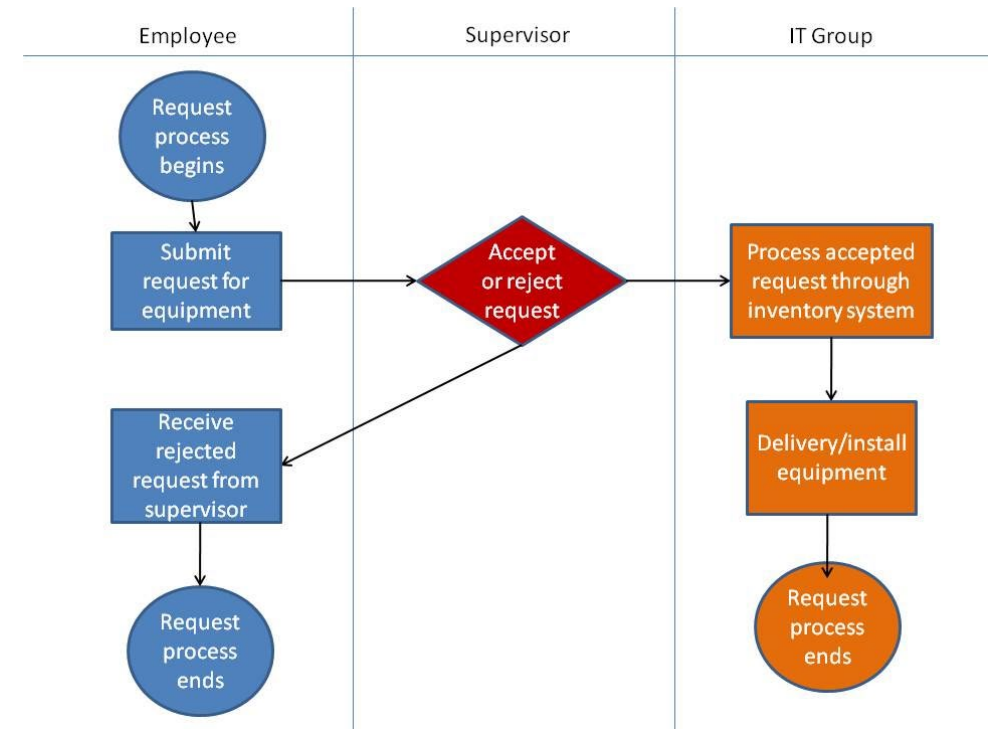
Source: <http://esheninger.blogspot.com/2018/08/a-picture-is-worth-thousand-words.html>





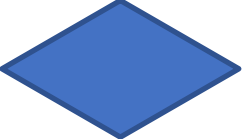


# Swim Lane Diagrams

## Advantages

- ❖ Identifies who does what & in what order
  - ✓ Logical & Chronological
  - ✓ Indicates hand-offs
- ❖ Versatile
  - ✓ Applied to other diagrams
  - ✓ Training tool



# Swim Lane Diagrams - symbols

Symbol	Description
	A circle signifies the starting and ending of an event in the process.
	A rectangle represents an activity in the process.
	A diamond represents a decision that must be made.
	Arrows indicate the flow of the process.
	A cylinder represents stored data.

# Order to Cash (O2C)

The process starts when the customer contacts Sales to place an order. The person in Sales creates the sales order. As part of doing this, the person in sales first checks to see if the customer has enough available credit to cover the order. They do this by looking up the customer's credit on a report that is generated by Accounting and sent to Sales every Monday morning. If the customer doesn't have enough available credit then the person in sales notifies the customer who can then either update or cancel their order. Next the person in sales checks to see if the items being ordered are in stock. They do this by checking a report on inventory that the Warehouse created at the end of each day. If the items being ordered are not in stock then the person in Sales notifies the customer who can then update or cancel their order. If the report indicates the items are in stock then the order goes to the Warehouse where the workers there will pick the order. Since Sales is looking at a report that is only updated at the end of each day, there is a chance that they accepted an order for an item that is not really in stock. If that is the case the Warehouse notifies Sales who then notifies the customer who can update or cancel their order...

# Order to Cash (O2C)

...Once the people in the warehouse pick the order, the people in Accounting have to make sure that the customer actually has enough credit to cover the order. Since the people in Sales use a credit report that is generated on Monday morning, there is a chance that the information on the credit report is old. If the customer doesn't have enough available credit then Accounting notifies Sales who then notifies the customer who can then choose to update or cancel their order. If the customer has enough available credit then their available credit is reduced by the total cost of the order and the warehouse is notified and they pack and ship the order. As soon as the order is shipped the people in the warehouse notify accounting and accounting generates and sends the invoice to the customer. When the customer pays the invoice the people in Accounting increase the customer's available credit by the amount of the payment, they post the payment and we're done.

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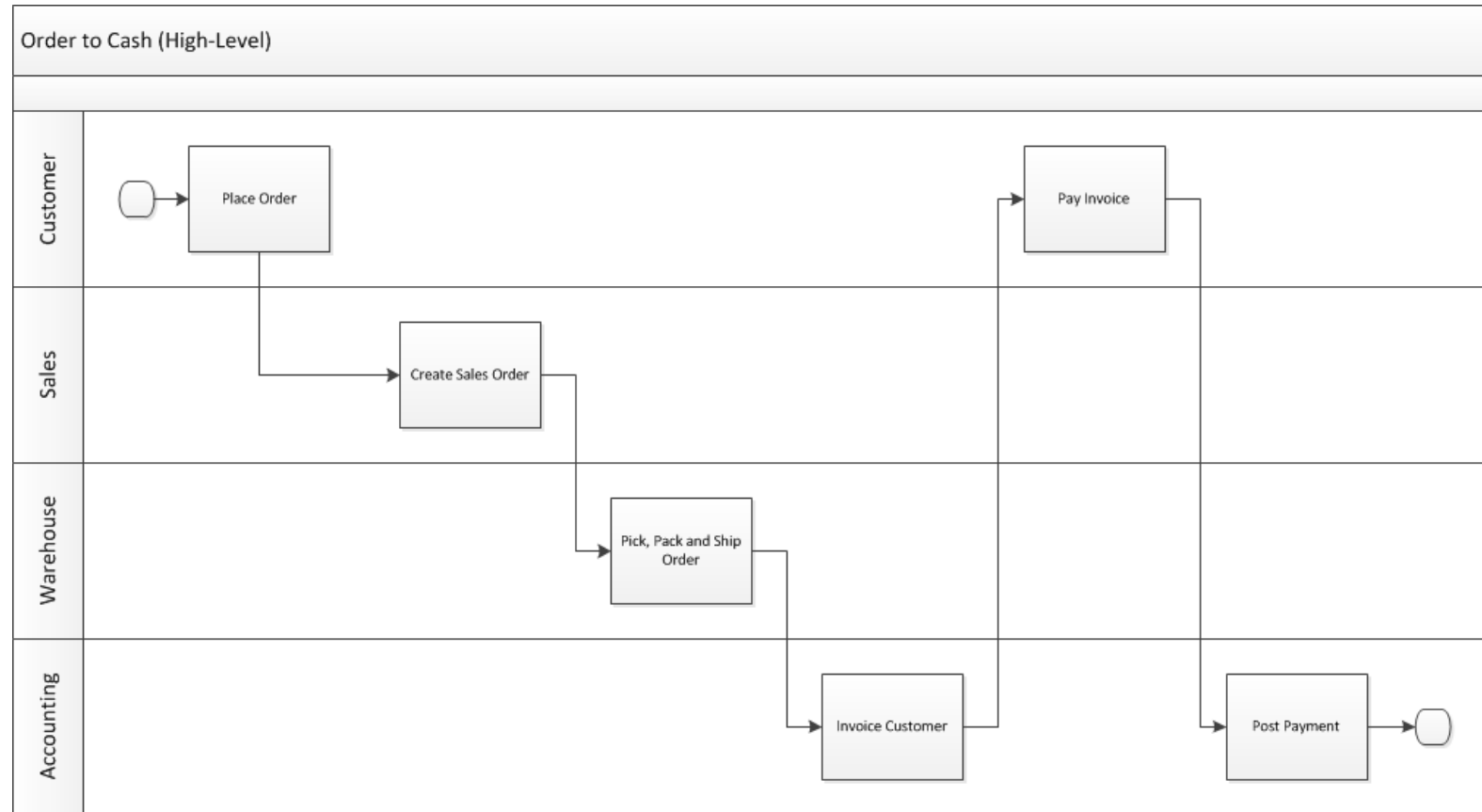
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# Order to Cash (O2C)

## Who does What & When

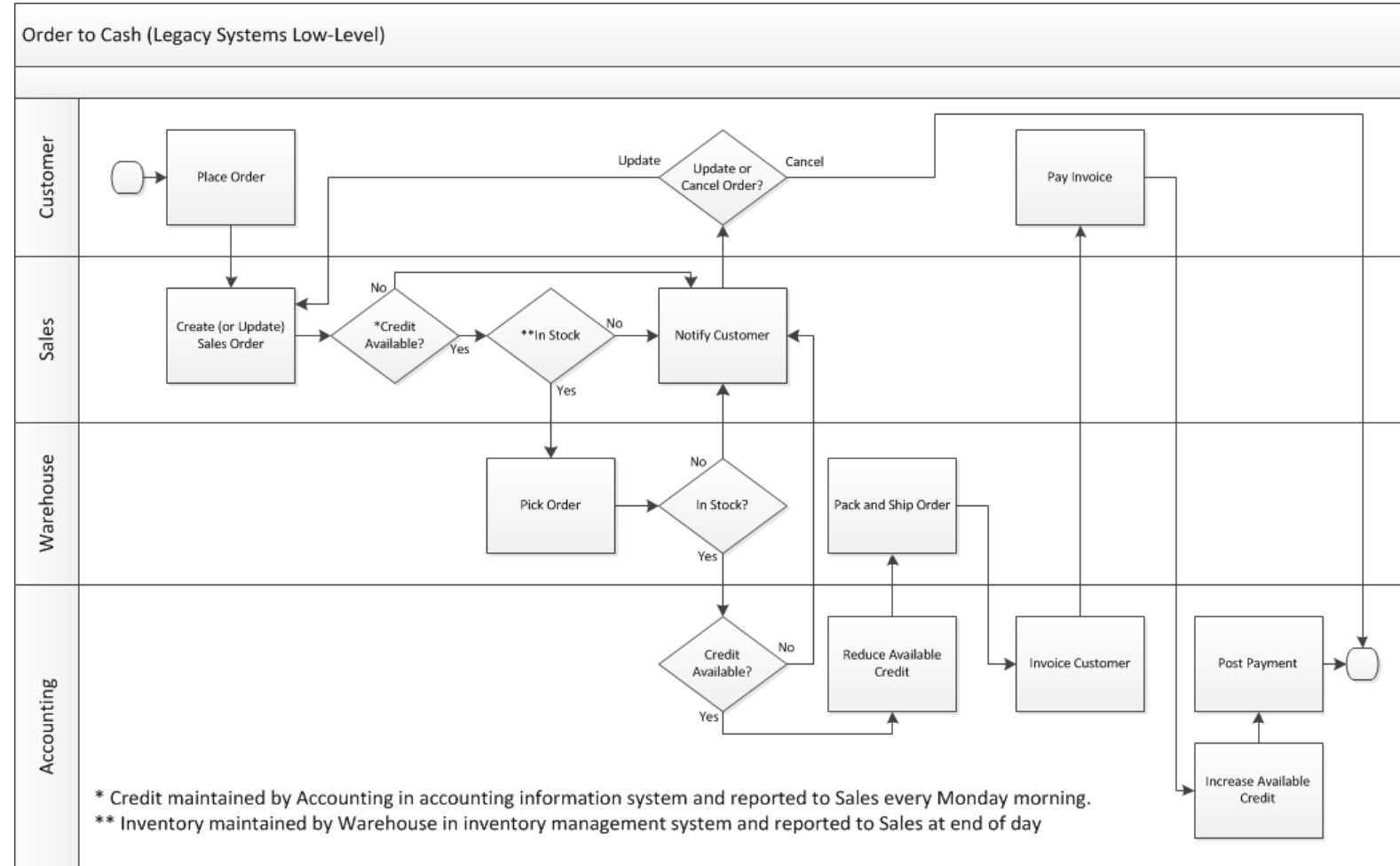
- Overview example



# Order to Cash (O2C)

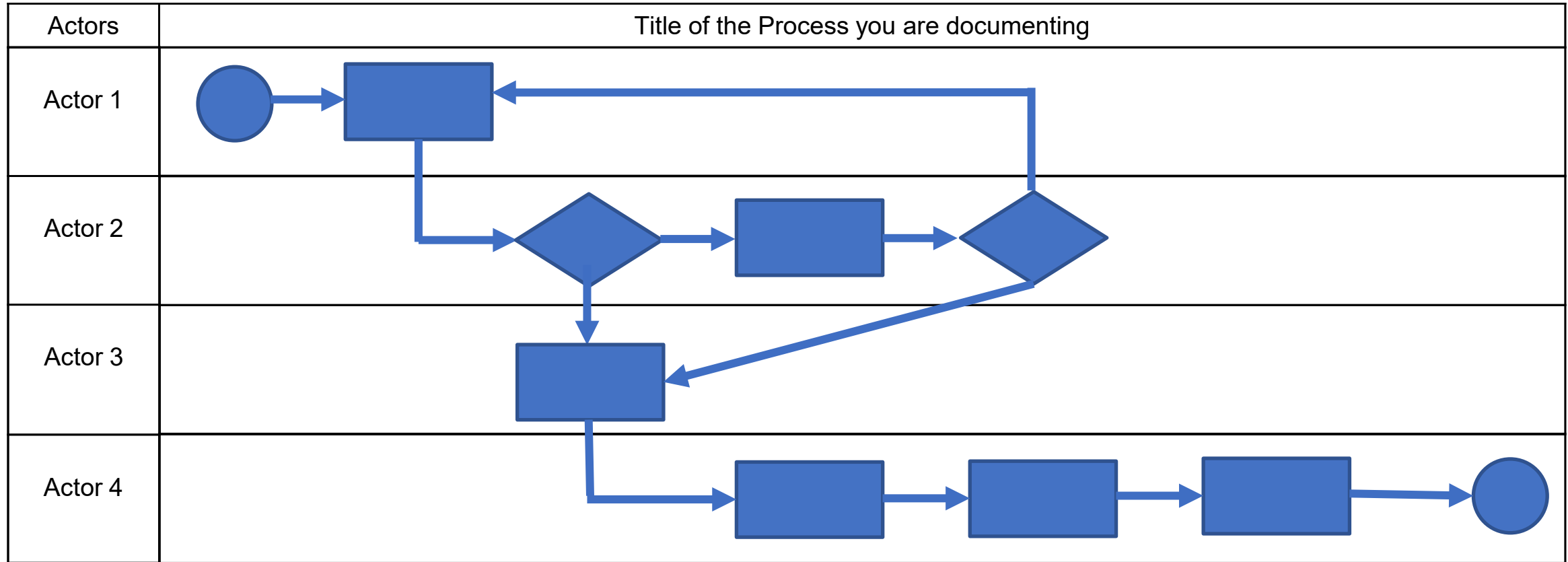
## Who does What & When

- Complexity added
- Legacy system





# Swim Lane Diagrams – Create your own



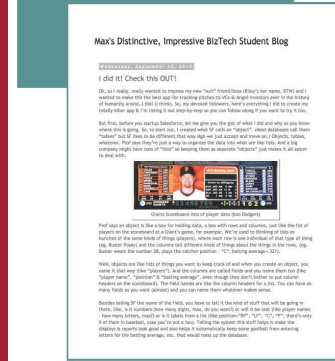
# Swim Lane Diagrams

❖ LucidChart

[LucidChart Instructions](#)

# Business Systems Innovation Labs

## Lab 1a Pre-flight Checklist



"I did it! Check this OUT!"

Today, you'll pick up where you left off with the story of Max, the SJSU student blogger. Just follow along as she describes what she did in her new job with a startup company.

Prep: What do you need to start?

# Max Labs 1a

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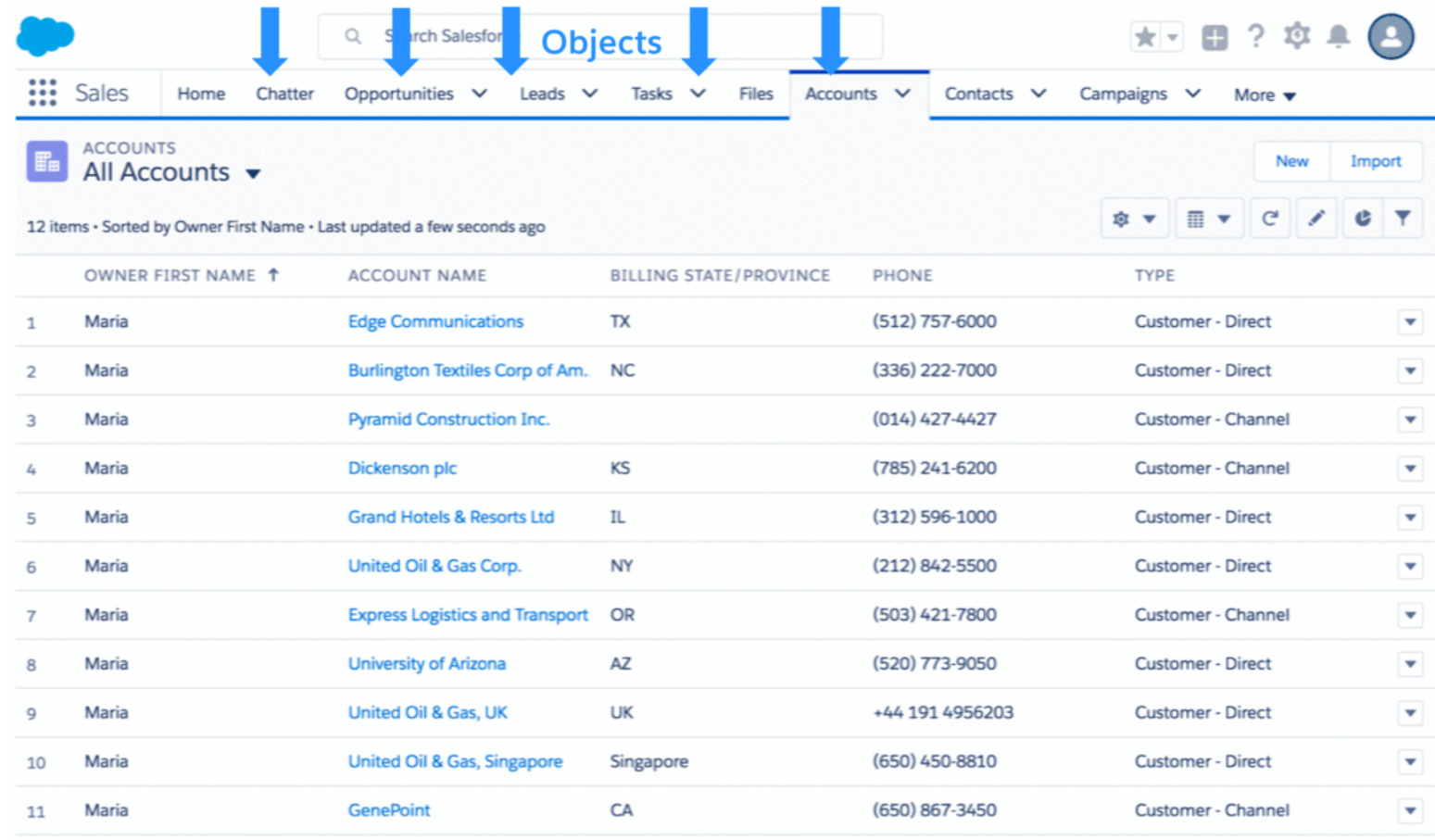
## Digital Product Management

**FOX**  
**MIS**

# Max Labs – 1a Discussion

## Creating Databases (objects)

- Why do we need these lists?
- Why not just use Excel?
- What are we tracking?
- Unique ID?



The screenshot shows the Salesforce interface for the 'Accounts' object. A search bar at the top contains the text 'Search Salesfor' and 'Objects'. Below the search bar, a navigation bar includes tabs for 'Sales', 'Home', 'Chatter', 'Opportunities', 'Leads', 'Tasks', 'Files', 'Accounts', 'Contacts', 'Campaigns', and 'More'. The 'Accounts' tab is selected. The main content area displays a list of 12 accounts, sorted by 'Owner First Name'. The table has columns for 'OWNER FIRST NAME', 'ACCOUNT NAME', 'BILLING STATE/PROVINCE', 'PHONE', and 'TYPE'. The data rows are as follows:

	OWNER FIRST NAME ↑	ACCOUNT NAME	BILLING STATE/PROVINCE	PHONE	TYPE
1	Maria	Edge Communications	TX	(512) 757-6000	Customer - Direct
2	Maria	Burlington Textiles Corp of Am.	NC	(336) 222-7000	Customer - Direct
3	Maria	Pyramid Construction Inc.		(014) 427-4427	Customer - Channel
4	Maria	Dickenson plc	KS	(785) 241-6200	Customer - Channel
5	Maria	Grand Hotels & Resorts Ltd	IL	(312) 596-1000	Customer - Direct
6	Maria	United Oil & Gas Corp.	NY	(212) 842-5500	Customer - Direct
7	Maria	Express Logistics and Transport	OR	(503) 421-7800	Customer - Channel
8	Maria	University of Arizona	AZ	(520) 773-9050	Customer - Direct
9	Maria	United Oil & Gas, UK	UK	+44 191 4956203	Customer - Direct
10	Maria	United Oil & Gas, Singapore	Singapore	(650) 450-8810	Customer - Direct
11	Maria	GenePoint	CA	(650) 867-3450	Customer - Channel


Source: <https://developer.salesforce.com/blogs/developer-relations/2017/04/salesforce-data-security-model-explained-visually.html>

# Max Labs – 1a Discussion


## Getting Started

- **Get** a Salesforce account
- **DO NOT** get the 30-Day Free Trial Account
- **DO NOT** use an AOL, Hotmail or Yahoo account
- **Do** use a new Gmail account you create for this project.

Explore Lightning Platform, the fastest way to create enterprise cloud apps



Build apps Lightning fast with drag and drop tools  
Customize your data model with clicks  
Go further with Apex code  
Integrate with anything using powerful APIs  
Stay protected with enterprise-grade security  
Customize UI with clicks or any leading-edge web framework

 lightning platform

Get your very own Developer Edition  
A full-featured copy of Lightning Platform, for FREE.

Name  
First  Last

Email

Role

Company

Country

Postal Code

Username

By registering, you confirm you have read and agree to the [Terms of Use](#) and the [Master Subscription Agreement](#) and agree that my data is subject to the [Privacy Statement](#), including use for marketing purposes.

Source: <https://developer.salesforce.com/signup>

# Max Labs – 1a Discussion

## Determining Data Needs

- What are Max's needs for creating the "Pitch"
- What data are we capturing?
- What are we tracking?
- How will this data be used?

The screenshot shows a Google Sheet titled "The Good CRM" with a menu bar (File, Edit, View, Insert, Format, Data, Tools, Add-ons, Help) and a toolbar. The main table has columns A through F. Column A is "Contact Name", B is "Source of prospect", C is "Next action date", D is "Contact log", E is "Lead nurturing stage", and F is "Estimated opportunity size". The table contains 5 rows of data. Below the table, a sidebar is open showing settings for "Process Automation", "User Interface", "Custom Code", "Environments", and "SETTINGS". The "SETTINGS" section includes "Company Settings", "Identity", "Security", and "User Interface". A table within the sidebar lists settings for "Clone This User", "Group Record Page", "Group Layout", "Vendor Record Page", "Vendor Layout", and "Gillian Madill".

	A	B	C	D	E	F
1	<b>Contact Name</b>	<b>Source of prospect</b>	<b>Next action date</b>	<b>Contact log</b>	<b>Lead nurturing stage</b>	<b>Estimated opportunity size</b>
2	Joe Smith	Business Card	1/4/19	Chatted with on 12/20/18 and discussed XYZ. Needed more information about X...	3	\$43,500
3	Tony Stark	Tech Convention	1/11/19	Chatted with on 12/20/18 and discussed XYZ. Needed more information about X...	1	All the money
4	Bruce Wayne	Business Card	1/15/19	Chatted with on 12/20/18 and discussed XYZ. Needed more information about X...	2	\$1,000,000
5	Beyonce	Cold Call	1/16/19	Chatted with on 12/20/18 and discussed XYZ. Needed more information about X...	3	\$75,000

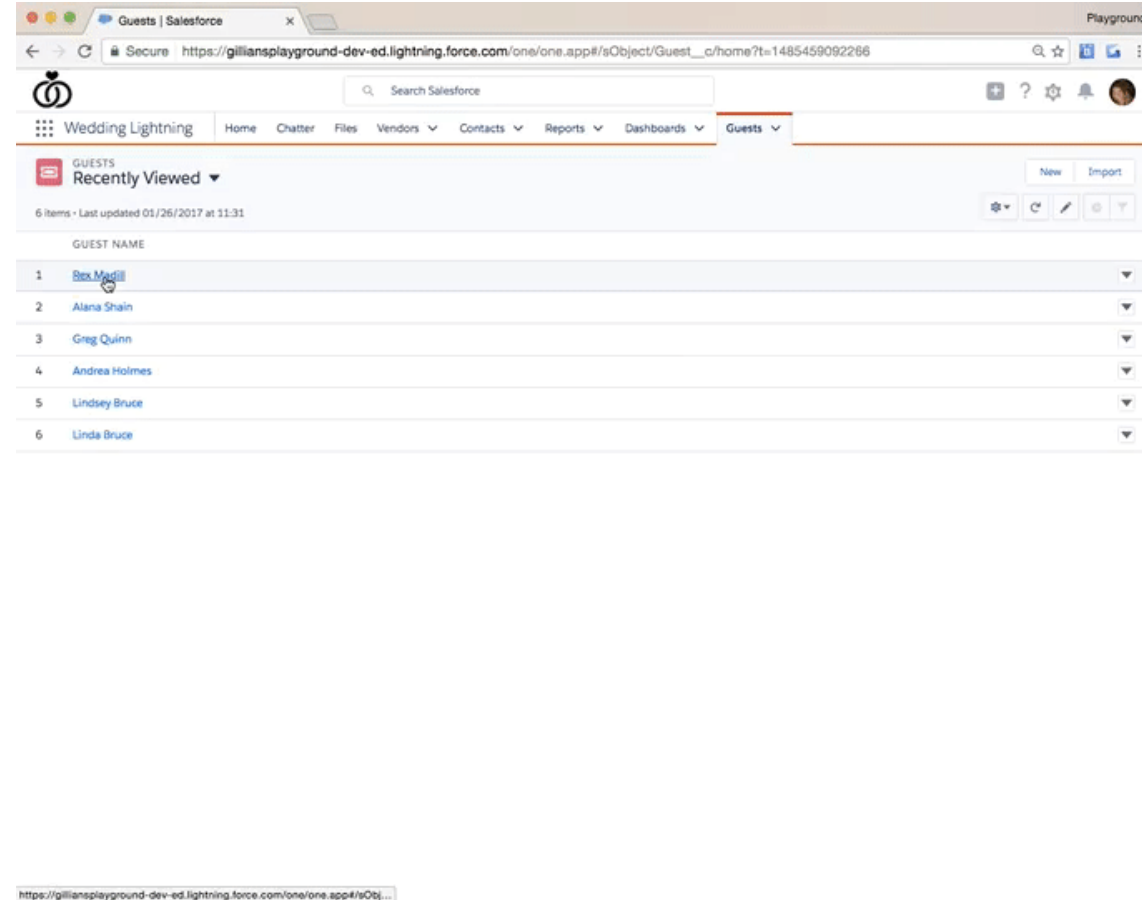
NAME	TYPE	OBJECT
Clone This User	Visualforce Page	
Group Record Page	Lightning Page	
Group Layout	Page Layout	Group
Vendor Record Page	Lightning Page	
Vendor Layout	Page Layout	Vendor
Gillian Madill	User	

Source: <https://www.softwareadvice.com/resources/updates/https://advisesage.com/learn/lightning-business-objects/>

# Max Labs – 1a Discussion

## Page Layouts

- What information do we want to show.
- Why are aesthetics important?
- Creating cleaner data?

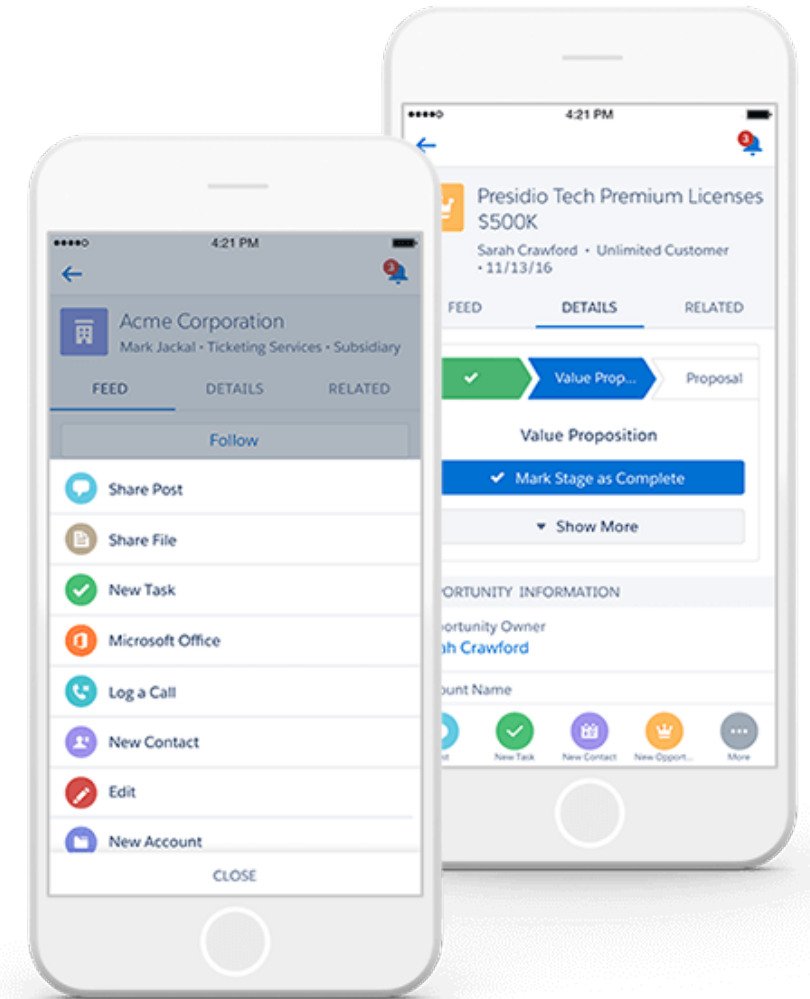


Source: <https://admin.salesforce.com/learn-lightning-compact-layouts>

# Max Labs – 1a Discussion

## Mobile App

- What information do we want to show.
- Why are aesthetics important?
- Is this an API, ERP or UX Interface?

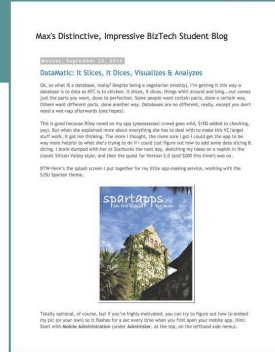


Source: <https://www.salesforce.com/eu/learning-centre/crm/mobile-crm/>



# Business Systems Innovation Labs

## Lab 1b Pre-flight Checklist



### “DataMatic: It Slices, It Dices, Visualizes & Analyzes”

Follow along with Max again as she figures out how to slice, dice, visualize and analyze Riley’s pitch data to make it more useful.

Prep: What do you need to start?

# Max Labs 1b

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Digital Product Management

**FOX**  
**MIS**

# Max Labs – 1b Discussion

## Digital Business Models.

- Share & Communicate
- Revise and Redesign
- 3<sup>rd</sup> Party Products (APIs)

**FEATURED SOLUTIONS** SHOW MORE >

App Name	Rating	Price	Type
accountingseed Accounting on Salesforce	★★★★★	PAID	APP
Secure Data Collection FORMASSEMBLY	★★★★★	PAID	APP
Cloud Contact Center Software for Sales and Service NewVoiceMedia	★★★★★	PAID	APP
HELLOSIGN eSignatures for Salesforce	★★★★★	PAID	APP
InGenius Screen pop · Click-to-dial · Call logging	★★★★★	PAID	APP
formstack Native Form Builder	★★★★★	PAID	APP
Automated Document Generation nintex Drawloop	★★★★★	PAID	APP
D&B Optimizer for SALESFORCE Accelerate Sales with Clean Lead, Contact & Account Data	★★★★★	PAID	LIGHTNING DATA
Deliver first-class customer onboarding. TASKRAY	★★★★★	PAID	APP
SurveyMonkey Make customer feedback actionable in Salesforce	★★★★★	PAID	APP
conga Composer™ Engaging documents, presentations, and reports	★★★★★	PAID	APP
slalom strategy. technology. transformation.	★★★★★		CONSULTANT

**TOP CATEGORIES**

- ★ Finance
- ★ Human Resources
- ★ Enterprise Resource Planning
- ★ Sales
- ★ Customer Service
- ★ IT & Admin
- ★ Marketing
- ★ Integration
- ★ Salesforce Labs
- ★ Analytics

Source: <https://appexchange.salesforce.com/>

# Max Labs – 1b Discussion

## Monetize Max's Blog

- Do Not Close Your Browser
- Buy Now
- Click Confirmations
- Install (Launch Process)
- Max's Pitch Package



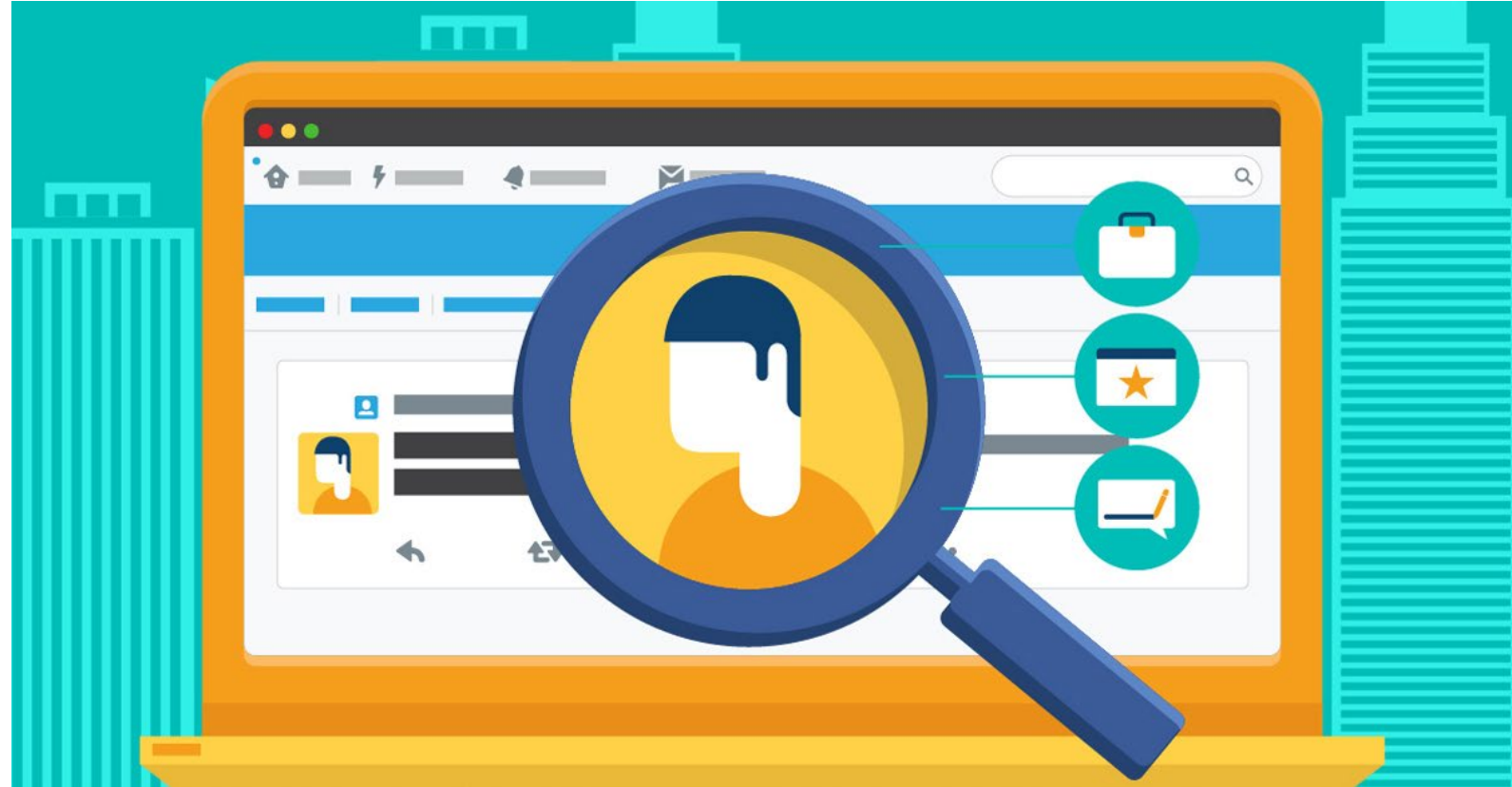
**Me & Rocky!**

Source: <https://www.themaxlabsprojectshop.com/>

# Max Labs – 1b Discussion

## Pitch Data File

- CSV files
- Organization
- Viewing the Data
  - Customization

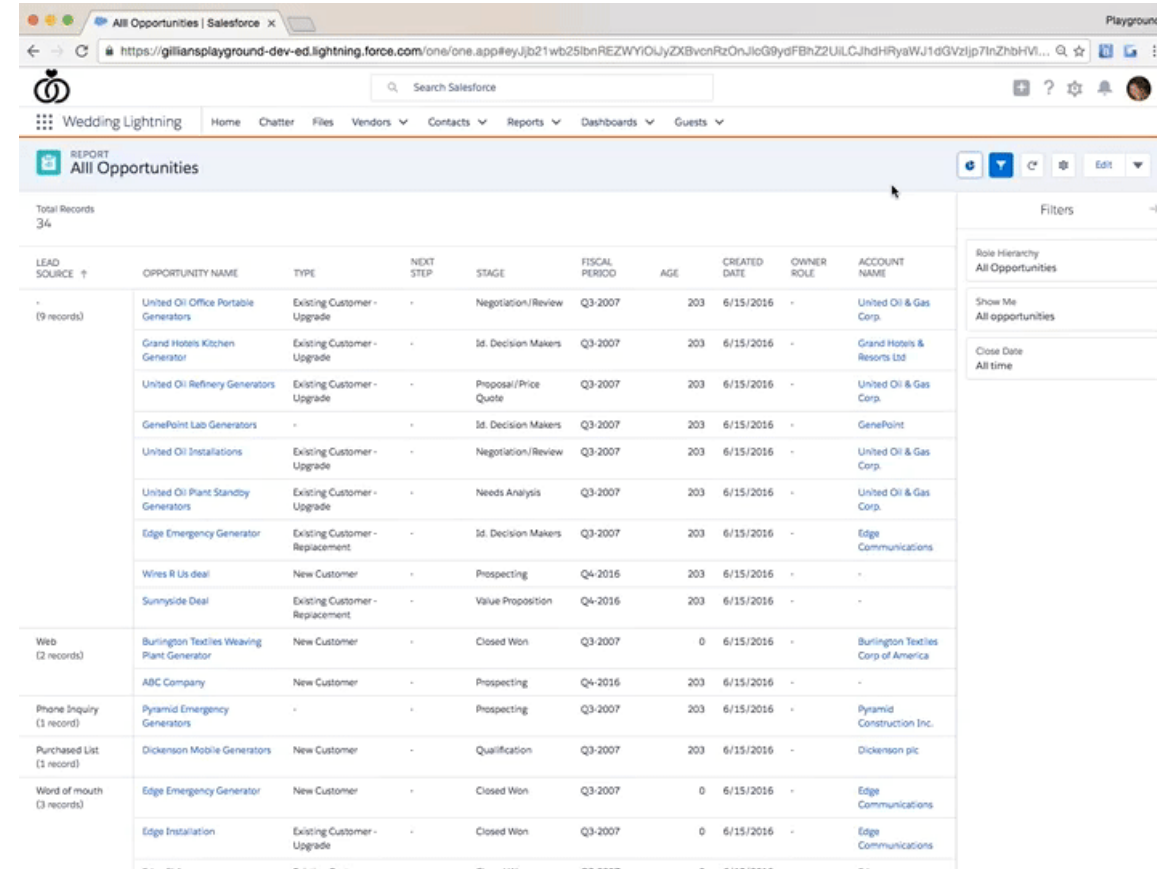


Source: <https://www.salesforce.com/ca/blog/2016/09/sales-search-cheat-sheet.html>

# Max Labs – 1b Discussion

## Generating Reports

- CSV files
- Organization
- Viewing the Data
  - Filtering
  - Integration



The screenshot shows a Salesforce report interface for 'All Opportunities'. The report displays 34 total records, grouped by lead source. The columns include Lead Source, Opportunity Name, Type, Next Step, Stage, Fiscal Period, Age, Created Date, Owner Role, and Account Name. The data is organized into several groups based on lead source.

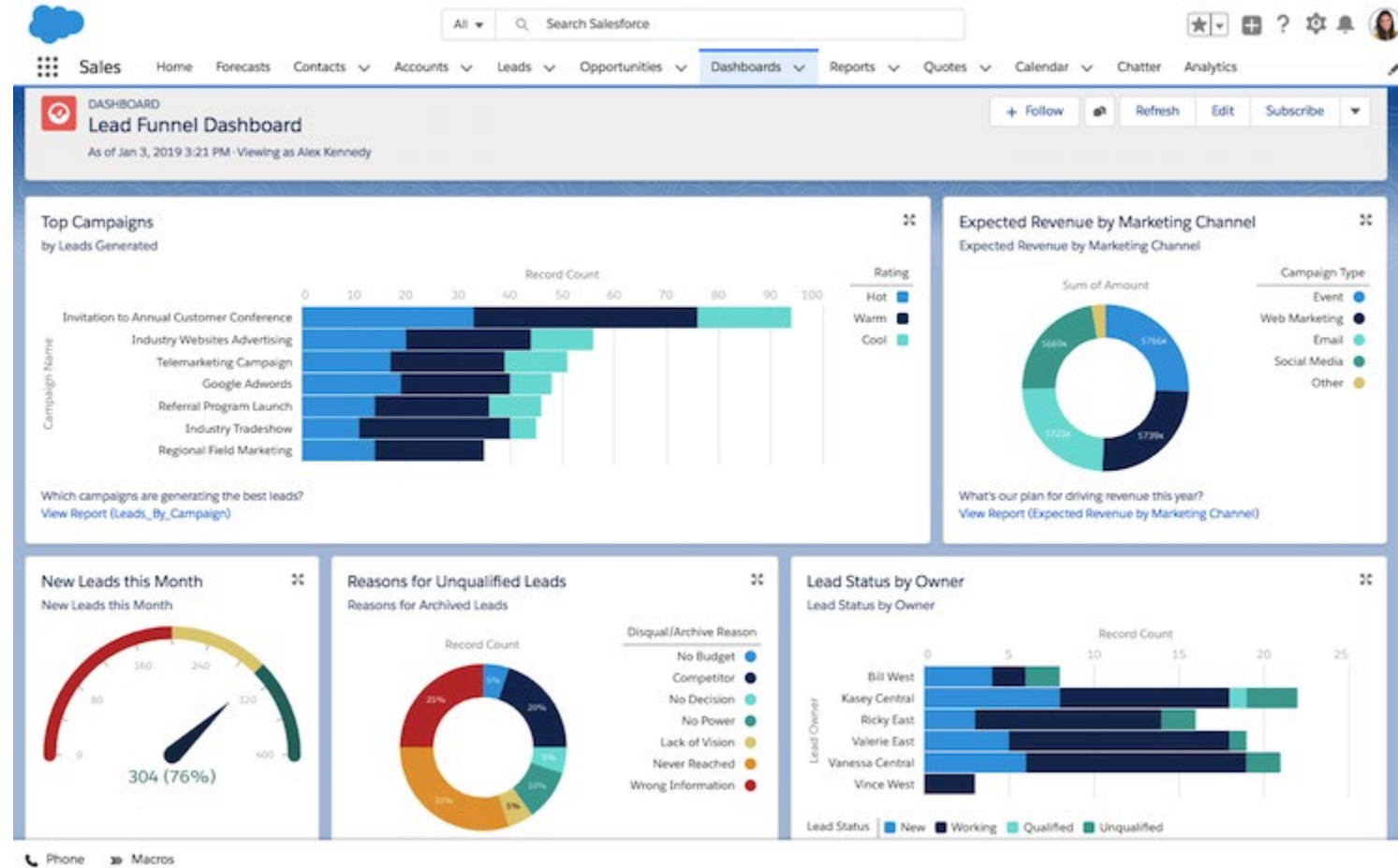
LEAD SOURCE	OPPORTUNITY NAME	TYPE	NEXT STEP	STAGE	FISCAL PERIOD	AGE	CREATED DATE	OWNER ROLE	ACCOUNT NAME
(9 records)	United Oil Office Portable Generators	Existing Customer - Upgrade	-	Negotiation/Review	Q3-2007	203	6/15/2016	-	United Oil & Gas Corp.
	Grand Hotels Kitchen Generator	Existing Customer - Upgrade	-	Id. Decision Makers	Q3-2007	203	6/15/2016	-	Grand Hotels & Resorts Ltd
	United Oil Refinery Generators	Existing Customer - Upgrade	-	Proposal/Price Quote	Q3-2007	203	6/15/2016	-	United Oil & Gas Corp.
	GenePoint Lab Generators	-	-	Id. Decision Makers	Q3-2007	203	6/15/2016	-	GenePoint
	United Oil Installations	Existing Customer - Upgrade	-	Negotiation/Review	Q3-2007	203	6/15/2016	-	United Oil & Gas Corp.
	United Oil Plant Standby Generators	Existing Customer - Upgrade	-	Needs Analysis	Q3-2007	203	6/15/2016	-	United Oil & Gas Corp.
	Edge Emergency Generator	Existing Customer - Replacement	-	Id. Decision Makers	Q3-2007	203	6/15/2016	-	Edge Communications
	Wines R Us deal	New Customer	-	Prospecting	Q4-2016	203	6/15/2016	-	-
	Sunnyside Deal	Existing Customer - Replacement	-	Value Proposition	Q4-2016	203	6/15/2016	-	-
Web (2 records)	Burlington Textiles Weaving Plant Generator	New Customer	-	Closed Won	Q3-2007	0	6/15/2016	-	Burlington Textiles Corp of America
	ABC Company	New Customer	-	Prospecting	Q4-2016	203	6/15/2016	-	-
Phone Inquiry (1 record)	Pyramid Emergency Generators	-	-	Prospecting	Q3-2007	203	6/15/2016	-	Pyramid Construction Inc.
Purchased List (1 record)	Dickenson Mobile Generators	New Customer	-	Qualification	Q3-2007	203	6/15/2016	-	Dickenson pic
Word of mouth (3 records)	Edge Emergency Generator	New Customer	-	Closed Won	Q3-2007	0	6/15/2016	-	Edge Communications
	Edge Installation	Existing Customer - Upgrade	-	Closed Won	Q3-2007	0	6/15/2016	-	Edge Communications

Source: <https://admin.salesforce.com/learn-lightning-create-reports>

# Max Labs – 1b Discussion

## Dynamic Dashboards

- Database
- Monitoring
- Collaboration
- Customization



Source: <https://admin.salesforce.com/learn-lightning-create-reports>

# More to Come

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Prepare with Readings & Videos before our next class!!!