

IST 659 FINAL PROJECT

# CRUMBL COOKIE INVENTORY MANAGEMENT

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cookies

# OVERVIEW

- Our goal for this project was to create an inventory management database using data that we created to simulate operating a cookie bakery.
- The Database has Data for  
Stores, Payroll, Departments, Employees, Products, Inventory, Inventory Invoices, Customers, Credit Cards, Cookie Sales
- In todays world, every business must manage its inventory, which uses up a lot of resources. Hence we created an inventory management system to address this issue for business.

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# USER STORIES

- The app user (manager) must be able to view the Employees within all departments and their respective pay rate in order to accurately pay their employees for the work performed.
- The app user (owner) must be able to list new items on the menu to maintain corporate's expectations of a rotating menu each week so that customers always have a fresh selection of cookies.

# TECHNOLOGIES USED



Microsoft  
PowerApps



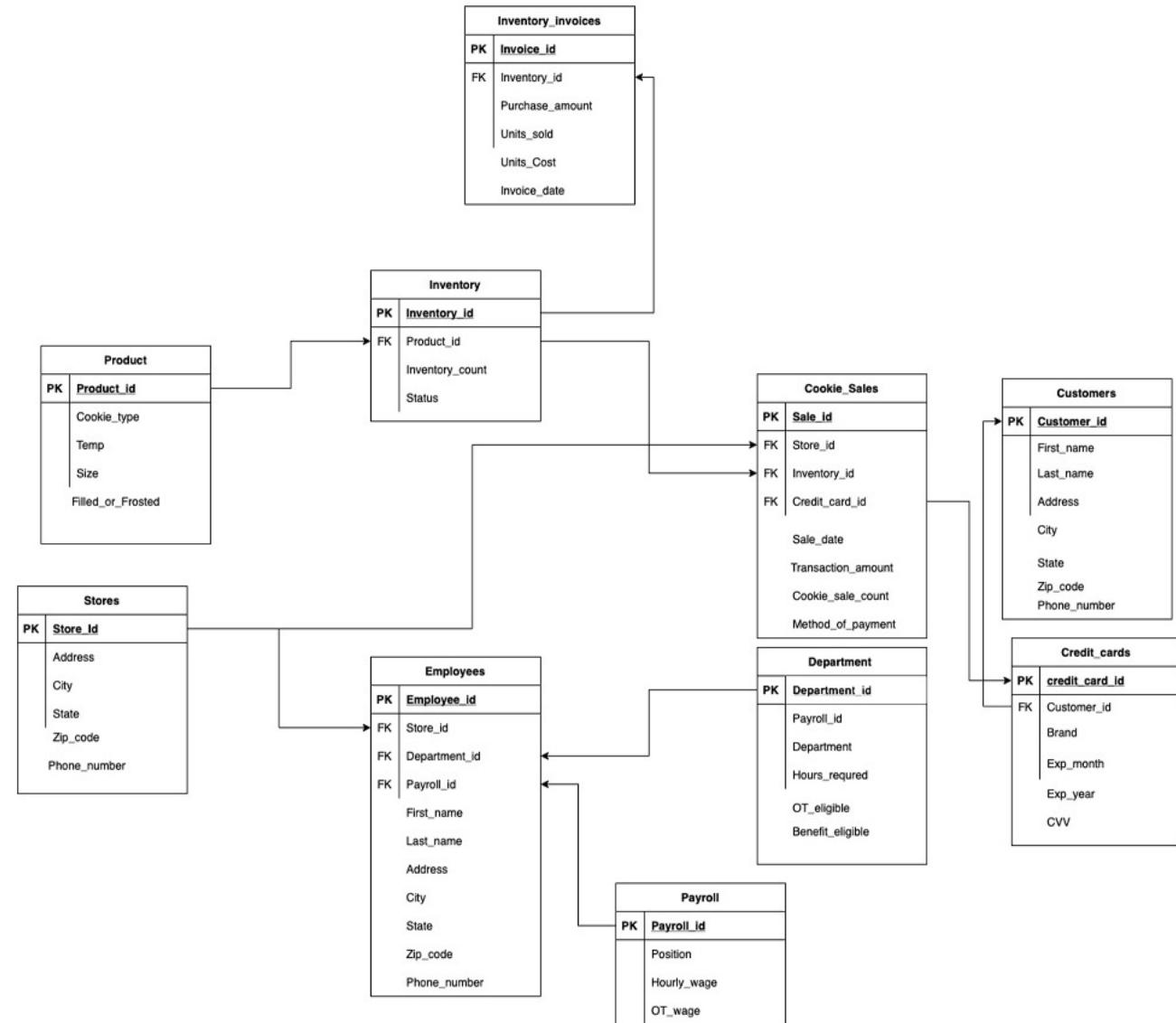
Azure  
Data Studio



Microsoft®  
SQL Server®

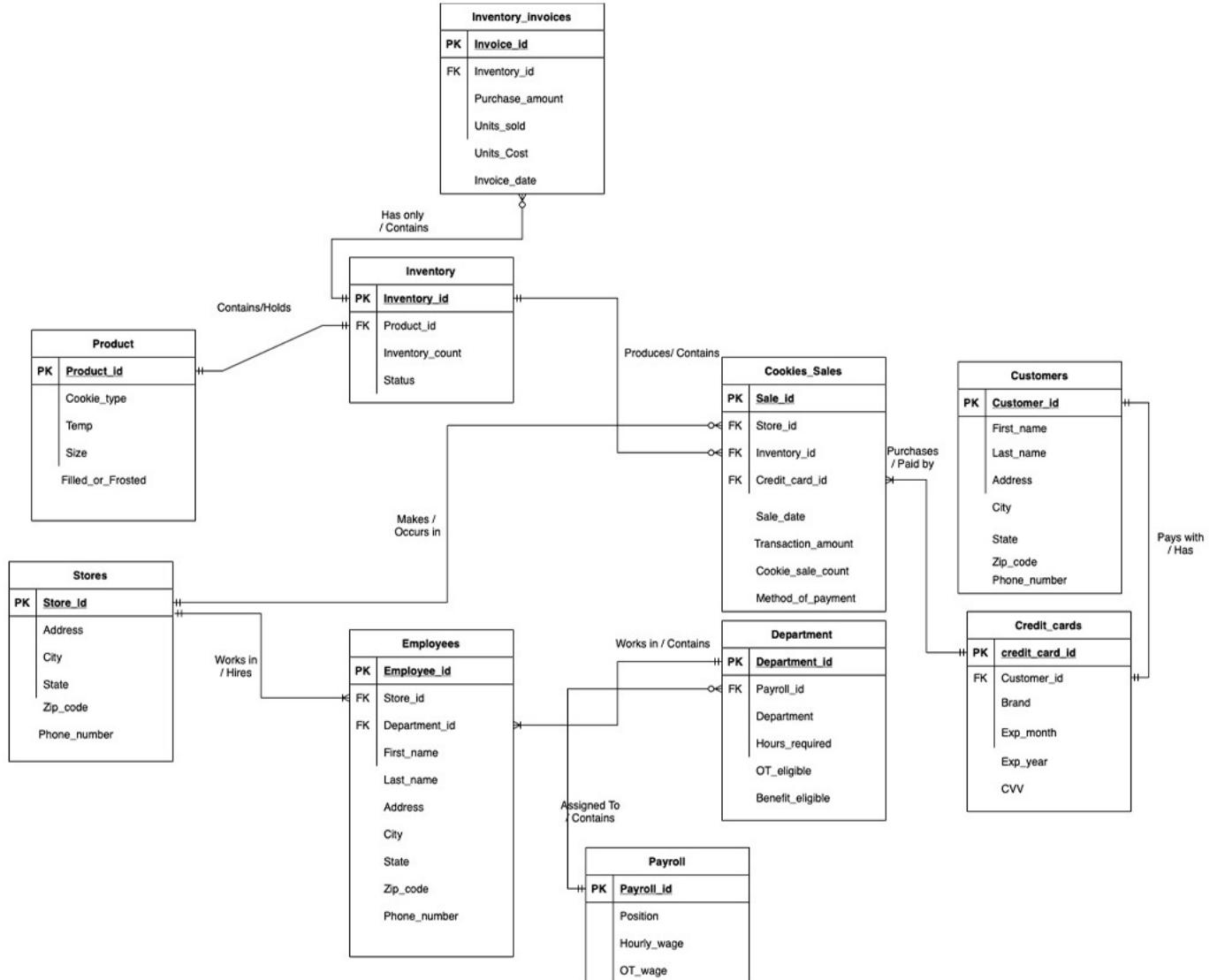
# CONCEPTUAL MODEL

- Conceptual model includes the requirements needed to
- Create the database
- High level description



# LOGICAL MODEL

- Logical Model includes representations of the entities, attributes and their relationships



# DEMO OF THE UI & LAYOUT



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|

Enter your Password

Log In

Menu



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- Employee Directory
- Customer Directory
- Products Line-up
- Inventory Details
- Stores
- Payroll
- Payment Info
- Sales

## Employees

⟳ ⌂ +

## Add Employee

✓

## Employees Details

Search items	
Alexa Dana	>
Janitorial	
Henrietta	
Bum Skipworth	>
Management	
Amherst	
Cameron Skipworth	>
Janitorial	
Henrietta	
Collin Taylor	>
Janitorial	
Henrietta	
Hat Birdy	>
Management	
Dewitt	
Joe Shmoe	>
Management	
Amherst	

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Enter Department ID

Enter Employee ID

Enter First Name

Enter Last Name

Enter Store ID

First Name  
Alexa

Last Name  
Dana

Employee ID  
10014

Works At  
Henrietta, NY

Department  
Janitorial

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 Customers



 Search items

**Beckah Dana**  
Henrietta, NY, 14623  
3152426845



**Bird Hat**  
New York, NY, 10021  
2122005346



**Brent Sebastian**  
Nashua, NH, 3045  
6032049867



**Bum Taylor**  
North Nashua, NH, 3003  
6032330549



**Clemency Lake**  
Dewitt, NY, 14228  
3152349474



**Collin Skipworth**  
Nashua, NH, 3045  
6032042842



 Add Customer



Enter First Name

Enter Last Name

Enter Address



Enter City



Enter State



Enter ZIP Code

 Customers

First Name

Beckah

Last Name

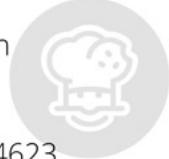
Dana

Phone\_Number

3152426845

Address

300 Cherokee Ln



Henrietta, NY, 14623



Stores



Add Store



Store Details

Search items	
Amherst	
1595 Niagara Falls, Blvd Suite 600, Amherst, NY,	
Dewitt	
3405 Erie Blvd. E, Dewitt, NY, 13214	
Henrietta	
100 Marketplace Dr, Suite 120, Henrietta, NY,	
Nashua	
256A Daniel Webster Hwy, Nashua, NH, 3045	
New York	
1195 3rd Ave, New York, NY, 10021	
Newington	
45 Gosling Rd STE 5c, Newington, NH, 4534	
North Nashua	
2 Cellu Dr, unit 101, North Nashua, NH, 3003	
Salem	
55 Central Street Unit D, Salem, NH, 4545	

Enter City Name

Enter State

Enter Address

Enter Zip Code

Enter Phone Number

**City**  
Amherst

**State**  
NY

**Address**  
1595 Niagara Falls, Blvd Suite 600

**Phone Number**  
3152187797



Products



Search items

Chocolate Chip

Mini



Molten Lava

Regular



Peanut Butter Brittle

Mini



Pecan Pie

Regular



Pink Sugar Cookie

Mini



Sea Salt Toffee

Regular



Snickerdoodle

Regular



Sugar

Regular



Add Product

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Cookie Type

Enter Cookie Size

Filled or Frosted?

Cookie Temperature

⟨ Inventory

⟳ ⬆ ⬇ +

🔍 Search items

Sugar

256



Snickerdoodle

343



Chocolate Chip

132



Sea Salt Toffee

123



Peanut Butter Brittle

0



Molten Lava

45



Pecan Pie

65



Pink Sugar Cookie

87



⟨ Inventory Invoice

Inventory Count

256

Inventory ID

101

Status

Y

Product ID

1



Purchased Amount

32.03

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Inventory ID

64.06

Status

2

Product ID

12/2/2022

⟨ Payroll

- Manager >
- Crew Member >
- Janitorial >
- Delivery >



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⟨ Payroll Details

Payroll ID

5001

Position

Manager

Hourly Wage

15.5

Overtime Wage

23.25



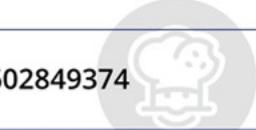
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⟲ Credit Cards

- 3459857973057998 >
- 3462205931192132 >
- 3471620098186686 >
- 3482852291980402 >
- 3537373602849374 >
- 4301532250995750 >
- 4671988838998942 >
- 4740786751346447 >
- 4872211875965691 >
- 5121289236714285 >
- 5159221491117040 >

⟲ Card Details

Customer ID  
20015  
Credit Card ID  
3537373602849374  
Brand  
MasterCard  
CVV  
238  
Expiry Month  
3  
Expiry Year  
2036



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## Sales

⟳ ⬆ ⬇ +

🔍 Search items

12/5/2022

\$ 4.97

Credit Card



12/5/2022

\$ 8.93

Credit Card



12/6/2022

\$ 14.93

Credit Card



12/6/2022

\$ 22.30

Credit Card



12/7/2022

\$ 77.98

Credit Card



12/7/2022

\$ 101.13

Credit Card



## Sales Details

Sale Date

12/5/2022

Inventory ID

101

Transaction Amount

4.97

Method of Payment

Credit Card

Credit Card ID

3462205931192132

Cookie Sale Count

1

TABLE DATA

## Stores

	STORE_ID	ADDRESS	CITY	STATE	ZIP_CODE	PHONE_NUMBER
1	201	1595 Niagara Falls, Bvld ...	Amherst	NY	14228	3152187797
2	202	3405 Erie Bvld. E	Dewitt	NY	13214	3152349923
3	203	100 Marketplace Dr, Suite...	Henrietta	NY	14623	3152429500
4	204	1195 3rd Ave	New York	NY	10021	2122009027
5	205	256A Daniel Webster Hwy	Nashua	NH	3045	6032044761
6	206	2 Cellu Dr, unit 101	North Nashua	NH	3003	6032339643
7	207	45 Gosling Rd STE 5c	Newington	NH	4534	6032810947
8	208	55 Central Street Unit D	Salem	NH	4545	6032127033

## Payroll

	PAYROLL_ID	Position	Hourly_Wage	OT_Wage
1	5001	Manager	15.50	23.25
2	5002	Crew Member	2.00	3.00
3	5003	Janitorial	3.00	4.50
4	5004	Delivery	4.00	6.00

## Employees

	EMPLOYEE_ID	STORE_ID	DEPARTMENT_ID	FIRST_NAME	LAST_NAME
1	10001	201	1	Joe	Shmoe
2	10002	203	3	Cameron	Skipworth
3	10003	201	2	Paul	Boyd
4	10004	204	3	Justin	Hall
5	10005	203	3	Collin	Taylor
6	10006	201	1	Bum	Skipworth
7	10007	204	2	Tom	Taylor
8	10008	203	1	Melaine	Taylor
9	10009	201	2	Zeus	Taylor
10	10010	207	1	Kishan	Rathor
11	10011	206	3	Liver	King
12	10012	208	4	Reese	Toby
13	10013	205	2	Stacy	Donnie
14	10014	203	3	Alexa	Dana
15	10015	202	1	Hat	Birdy

## Department

	DEPARTMENT_ID	PAYROLL_ID	Department	Hours_Required	OT_Eligible	Benefit_Eligible
1	1	5001	Management	50	N	Y
2	2	5002	Crew Member	30	Y	Y
3	3	5003	Janitorial	15	Y	Y
4	4	5004	Delivery	20	Y	Y

## Product

	PRODUCT_ID	Cookie_Type	Temp	Size	Filled_or_Frosted
1	1	Sugar	Chilled	Regular	NULL
2	2	Snickerdoodle	Warm	Regular	NULL
3	3	Chocolate Chip	Warm	Mini	NULL
4	4	Sea Salt Toffee	Warm	Regular	Frosted
5	5	Peanut Butter Brittle	Warm	Mini	Frosted
6	6	Molten Lava	Warm	Regular	Filled
7	7	Pecan Pie	Warm	Regular	Filled
8	8	Pink Sugar Cookie	Chilled	Mini	Frosted

## Customers

	CUSTOMER_ID	First_Name	Last_Name	Address	City	State	Zip_Code	Phone_Number
1	20001	Silvestra	Carmine	202 happy lane	Amherst	NY	14228	3152182933
2	20002	Clemency	Lake	303 washington st	Dewitt	NY	14228	3152349474
3	20003	Eli	Corynn	3930 forest drive	Henrietta	NY	14623	3152421039
4	20004	Tuck	Androll	393 lincoln ave	New York	NY	10021	2122003950
5	20005	Collin	Skipworth	234 fedex drive	Nashua	NH	3045	6032042842
6	20006	Bum	Taylor	344 mcdonald drive	North Nashua	NH	3003	6032330549
7	20007	Rush	Henrietta	23 long shadow dr	Newington	NH	4534	6032813857
8	20008	Emmanuel	Rayner	202 Top Ave	Salem	NH	4545	6032125754
9	20009	Zeus	Gage	102 MLK Bd.	Nashua	NH	3045	6032045865
10	20010	Brent	Sebastian	102 Sebastian St.	Nashua	NH	3045	6032049867
11	20011	King	Liver	3292 Poseidon Circle	Dewitt	NY	14228	3152349755
12	20012	Toby	Gazandlare	344 Oak Brook Rd	Amherst	NY	14228	3152189373
13	20013	Stacy	Donnie	193 Trail Ave	Henrietta	NY	14623	3152422342
14	20014	Beckah	Dana	300 Cherokee Ln	Henrietta	NY	14623	3152426845
15	20015	Bird	Hat	324 Snake Drive	New York	NY	10021	2122005346

## Credit\_Cards

	CREDIT_CARD_ID	Customer_ID	Brand	Exp_month	Exp_year	CVV
1	3459857973057998	20008	Amex	11	2045	454
2	3462205931192132	20001	AMEX	12	2034	234
3	3471620098186686	20012	Amex	4	2025	724
4	3482852291980402	20002	Mastercard	9	2042	654
5	3537373602849374	20015	MasterCard	3	2036	238
6	4301532250995750	20005	Visa	6	2029	678
7	4671988838998942	20004	Visa	4	2029	876
8	4740786751346447	20006	Amex	6	2027	856
9	4872211875965691	20007	Mastercard	3	2027	564
10	5121289236714285	20013	Amex	1	202	645
11	5159221491117040	20009	Mastercard	3	2030	425
12	5163190751587610	20010	Amex	1	2027	256
13	5168983913621003	20003	Visa	7	2034	654
14	5169041634751762	20011	Mastercard	6	2026	642
15	5185335609417015	20014	Amex	6	2045	256

## Cookie\_Sales

	Sale_ID	STORE_ID	INVENTORY_ID	CREDIT_CARD_ID	Sale_date	Transaction_amount	Cookie_sale_count	Method_of_payment
1	1001	203	101	3462205931192132	2022-12-05	4.97	1	Credit Card
2	1002	204	103	3482852291980402	2022-12-05	8.93	2	Credit Card
3	1003	203	108	5168983913621003	2022-12-06	14.93	5	Credit Card
4	1004	208	108	4671988838998942	2022-12-06	22.30	3	Credit Card
5	1005	207	103	4301532250995750	2022-12-07	77.98	6	Credit Card
6	1006	201	101	4740786751346447	2022-12-07	101.13	1	Credit Card
7	1007	203	104	4740786751346447	2022-12-08	57.56	4	Credit Card
8	1008	204	106	4872211875965691	2022-12-08	32.65	5	Credit Card
9	1009	205	104	3459857973057998	2022-12-09	54.10	7	Credit Card
10	1010	207	102	5159221491117040	2022-12-10	21.12	7	Credit Card
11	1011	203	104	5163190751587610	2022-12-22	23.44	7	Credit Card
12	1012	204	104	5169041634751762	2022-12-02	23.44	7	Credit Card
13	1013	203	104	3471620098186686	2022-11-28	12.43	2	Credit Card
14	1014	206	104	5121289236714285	2022-11-29	80.54	8	Credit Card
15	1015	205	103	5185335609417015	2022-12-03	43.56	5	Credit Card
16	1016	204	105	3537373602849374	2022-12-04	64.54	8	Credit Card

## Inventory\_Invoices

	INVOICE_ID ▼	INVENTORY_ID ▼	Purchase_Amount ▼	Units_Sold ▼	Unit_Cost ▼	Invoice_Date ▼
1	30001	101	32.03	2	64.06	2022-12-02
2	30002	102	23.00	123	2829.00	2022-12-01
3	30003	103	20.12	70	1408.40	2022-11-12
4	30004	104	30.12	103	3102.36	2022-11-03
5	30005	105	33.33	65	2166.45	2022-12-09
6	30006	106	48.32	54	2609.28	2022-12-10
7	30007	107	37.38	2	74.76	2022-07-12
8	30008	108	37.32	252	9404.64	2022-07-12
9	30009	101	94.32	25	2358.00	2022-08-12
10	30010	102	32.32	25	808.00	2022-08-12
11	30011	103	21.54	13	280.02	2022-08-23
12	30012	104	87.65	73	6398.45	2022-09-29
13	30013	105	65.35	6	392.10	2022-09-29
14	30014	106	53.65	5	268.25	2022-10-31
15	30015	107	54.90	4	219.60	2022-10-31

## Inventory

	INVENTORY_ID	PRODUCT_ID	Inventory_Count	Status
1	101	1	256	Y
2	102	2	343	Y
3	103	3	132	Y
4	104	4	123	Y
5	105	5	0	N
6	106	6	45	Y
7	107	7	65	Y
8	108	8	87	Y

# CONCLUSION

- System interfaces were created to satisfy the needs and desires of the market at the time.
- This system will enhance existing performance and assist in problem solving.
- With proper inventory management, you spend money on inventory that sells, so cash is always moving through the business.
- In order to meet the requirements and wants of the market at the time, system interfaces were developed.
- This system will aid in problem resolution and improve current performance.

THANK YOU