

# The Lemonade Stand – DBMS Project

Group 1 – K007, K035, K047, K070

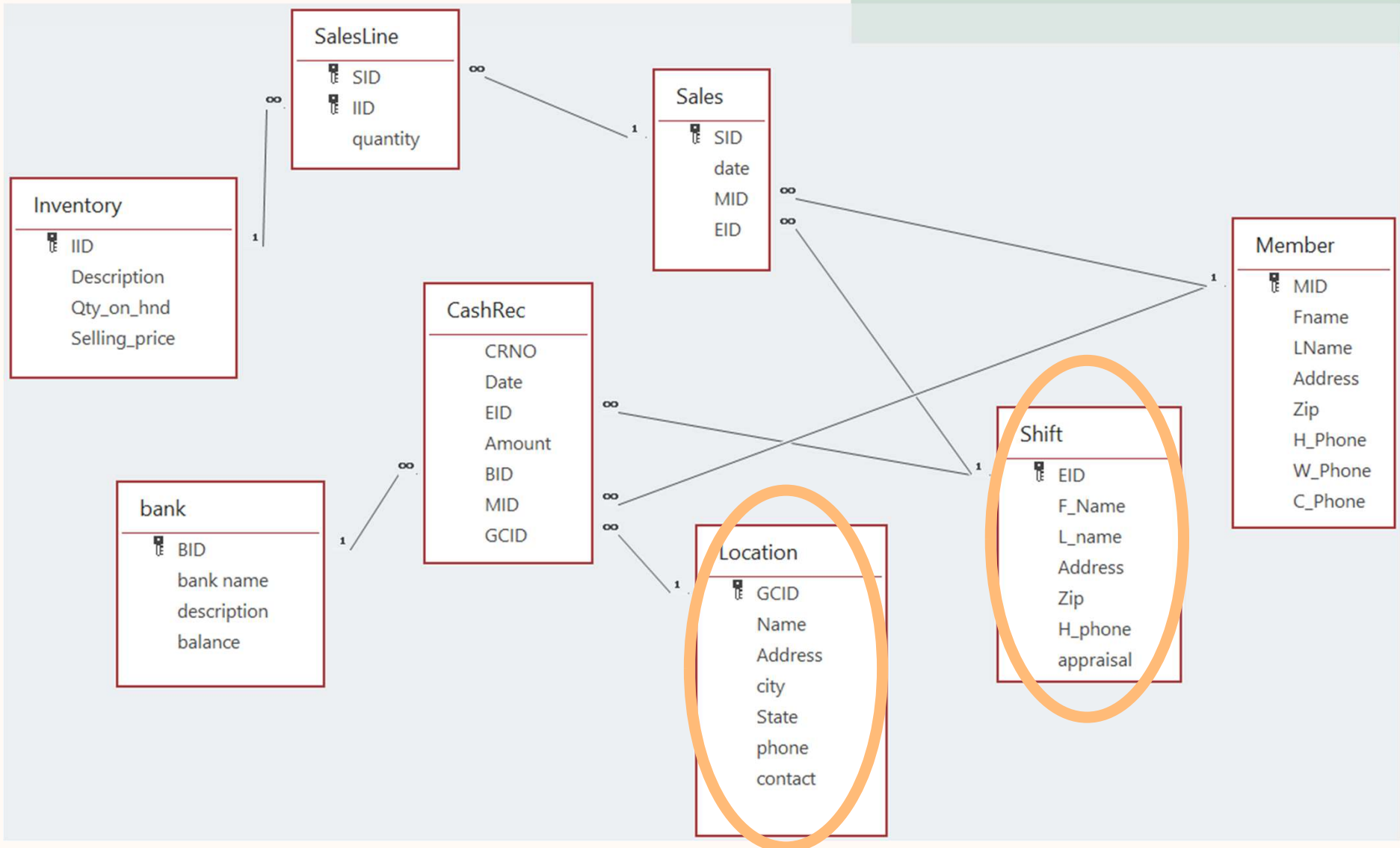
---

# Business Scenario Overview

---

- Small lemonade stand run by two children - started this business to earn some extra money over the summer, in June, July, and August.
- Agreement with the golf course to provide electricity and water in exchange for a rental fee of 5% of the sales.
- Both children working as employees being paid a daily wage of \$75.

# Business Scenario Overview (contd.)



# Lemonade Sales Invoice

Date	6-1-2013
------	----------

Member Name	Paul Mickelson
-------------	----------------

### Items Purchased

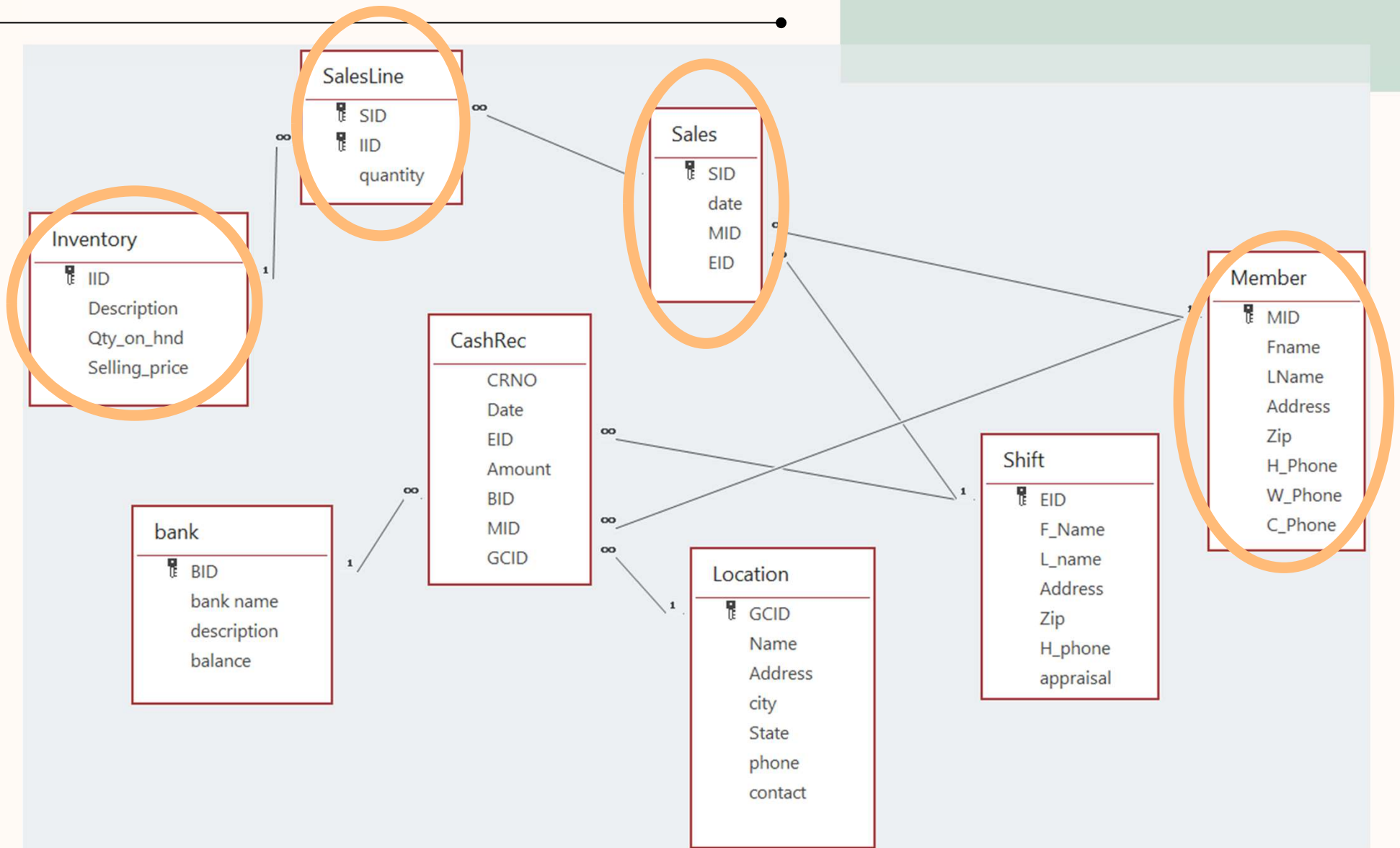
Inventory ID ▾	Description ▾	Quantity ▾	Selling price ▾	Extended Price ▾
11	lemon	2	₹ 2.00	₹ 4.00
12	blueberry	1	₹ 2.00	₹ 2.00
*				

Record: |◀◀ 1 of 2 ▶▶| 🔍 No Filter Search

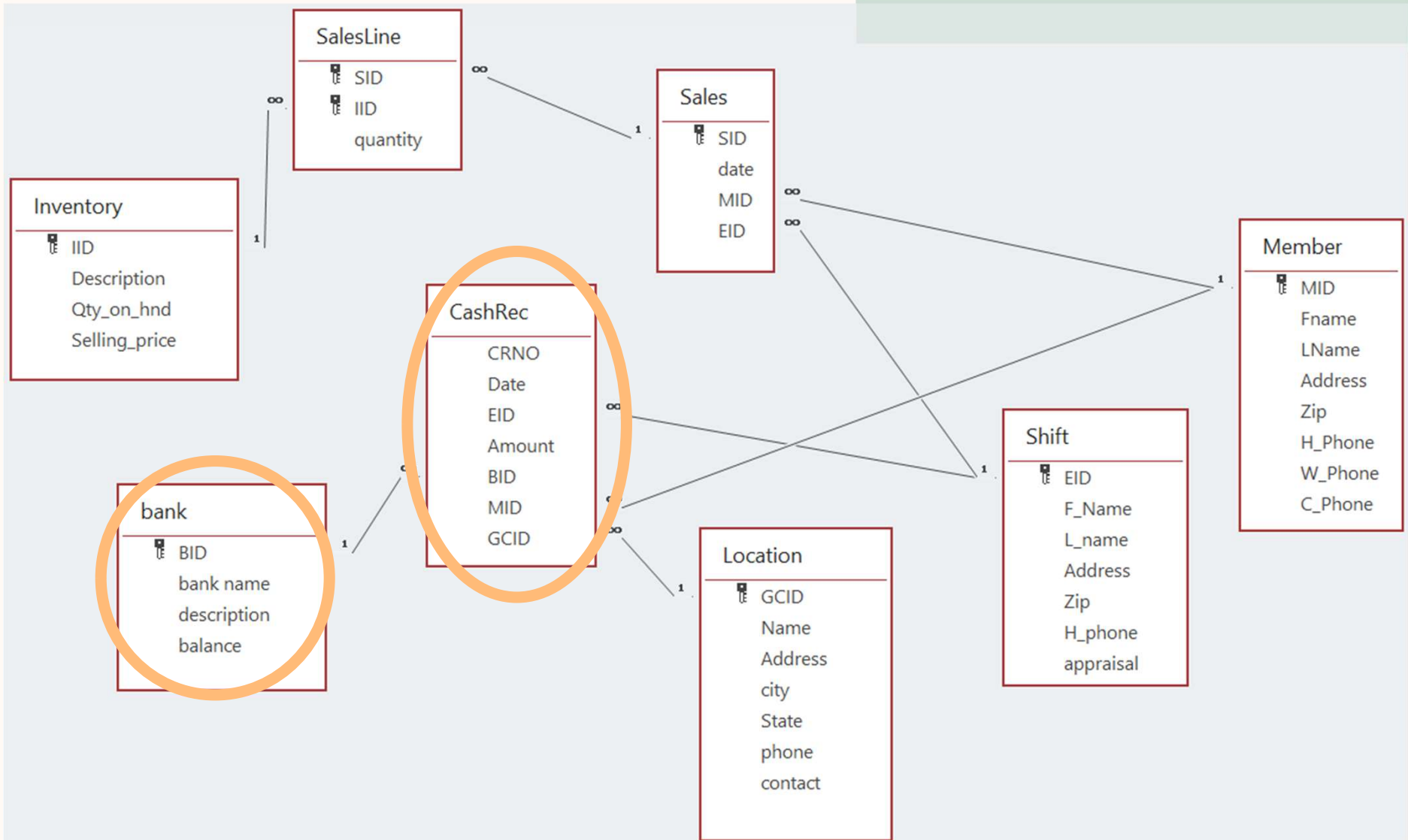
Invoice Total	₹ 6.00
---------------	--------

**Member Signature**\_\_\_\_\_

# Business Scenario Overview (contd.)



# Business Scenario Overview (contd.)



# Performance Analysis .

---

- How good are sales and cash receipts for 2013?
- Is the lemonade stand doing a good job collecting cash on their sales? Why is this an issue the lemonade stand needs to think about?
- Which lemonade flavors should the lemonade stand focus on in the future? Are there some flavors that maybe they shouldn't sell anymore?
- Which employees appear to generate the most sales? What about the least sales?
- What is the effect of weather on sales? How does understanding the effect of weather on sales improve our understanding of the business?
- Who are the lemonade stand's best customers? Who are the worst customers? How should the lemonade stand use this knowledge?
- Can you think of any IT security or control risks that exist in the database or the sales process? Would there be ways for employees to steal inventory using the database for example?

# <sup>1</sup> - Sales and cash receipts for 2013

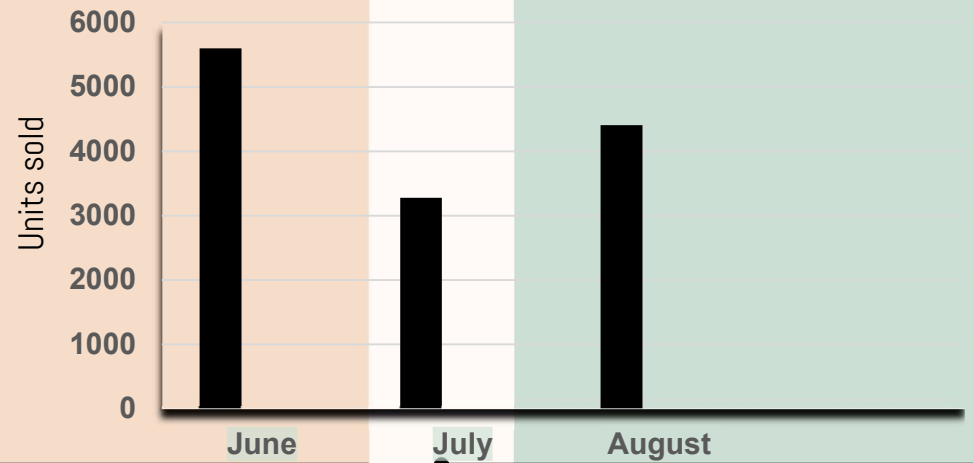
## Total Sales in 2013

Quantity – 5265 units

Amount – \$ 13,283.00

## Total Cash Receipts for 2013

\$ 13,123.00



## Month-wise Analysis



## 2 - Cash Collection

### Total Sales in 2013

\$ 13,283.00

### Total Cash Receipts for 2013

\$ 13,123.00

### Problem?

- Payment defaulters
  - Computation of profits and losses
  - Rent payment

- Profits and losses could be computed on the basis of cash receipts
- Defaulter reports could be another report sent to the management
- Defaulters could be fined (new table needed)

### Solutions

### 3 - Flavour Analysis

**Focus more**

Lemon

**May get rid of**

Strawberry

#### Flavour-wise Sales Analysis

Description	Quantity Sold	Amount
Lemon	8334	\$ 16,668.00
Cherry	3025	\$ 9,075.00
Strawberry Banana	972	\$ 3,888.00
Fuzzy Navel	692	\$ 3,460.00
Green Apple	1301	\$ 2,602.00
Peach	1133	\$ 2,266.00
Blueberry	915	\$ 1,830.00
Orange Pineapple	300	\$ 1,500.00
Kiwi	498	\$ 1,494.00
Lemon Lime	692	\$ 1,384.00
Grape	394	\$ 1,182.00
Peppermint	291	\$ 1,164.00
Watermelon	300	\$ 900.00
Blackberry	212	\$ 424.00
Red Raspberry	100	\$ 400.00
Orange	96	\$ 384.00
Strawberry	48	\$ 96.00

## 4 - Employee Analysis

### Generate Most Sales

Chris Smiley

### Generate Least Sales

Joe Teenager

### Total Sales Units and Amount

Name	Quantity Sold	Total Sales Amount
Chris Smiley	7493	\$ 18,912.00
Joe Teenager	3698	\$ 9,327.00
Both Joe and Chris together	8112	\$ 20,478.00

# 5 - Effect of Weather on the Business

## Effect of S-S

(The average sky cover between sunrise and sunset in tenths of sky covered)

MAXIMUM INVERSE RELATION  
WITH SALES

S-S ↑ SALES ↓

## Effect of Temperature

(The highest temperature for the day)

MAXIMUM DIRECT RELATION  
WITH SALES

MAXTEMP ↑ SALES ↑

## What could we do?

If a **hotter** day is forecasted:

- Stock up more
- Could increase the prices of the more popular products by a very meagre amount

If a **cloudier** day is forecasted:

- Could try to provide more attractive discounts

	Price	S-S	MaxSPD	AvgSPD	WTR	DEP	MINTemp	MAXTEMP	AVGTemp
Price	1.00								
S-S	-0.77	1.00							
MaxSPD	-0.11	0.17	1.00						
AvgSPD	-0.09	0.03	0.33	1.00					
WTR	-0.25	0.33	0.37	-0.02	1.00				
DEP	0.30	-0.26	0.12	-0.25	-0.02	1.00			
MINTemp	0.06	0.04	0.07	-0.18	0.00	0.72	1.00		
MAXTEMP	0.45	-0.46	0.08	-0.27	-0.10	0.83	0.57	1.00	
AVGTemp	0.31	-0.27	0.09	-0.26	-0.06	0.88	0.85	0.91	1.00

## 6 - Customer Analysis

### Best Customers

Rick Gossen (Member ID 16)

Pat Lawrie (Member ID 38)

Jean Leonard (Member ID 36)

- Provide them with discounts and perks so that they may spread a good word about us

### Worst Customers

108 customers with no purchases

- Product samples
- We could also try to provide them with the product at discounted rates

### Payment defaulters

- Penalize them in some way (maybe a small fine for the late payment)

## **7 – Security/Control Risks**

**Employee Access to  
Members' Personal Details**

**Employees' Wage  
Computation**

**Employees' Access to the  
Inventory**

**No 'Golf Course' Specified  
in tables other than Cash  
Receipts**

# Thanks!

Questions?