

2024

CSD 2206 – TERM PROJECT 1

IMPRESSED CLOTHING IRONS
UNNI KRISHNA PRASAD ENDLA – C0930172

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Company Overview

Company Name

ImPRESSED

Company Description

ImPRESSED is your go-to for modern and effective ironing solutions. Our irons use advanced technology and are made with high-quality materials, so you can expect top-notch results with every use. Whether you're smoothing out delicate fabrics or tackling wrinkles on sturdy denim, our irons give you the control and power you need for a flawless finish. With Impressed Clothing Iron, you'll elevate your ironing routine and achieve professional-quality results in no time.

Type of Company

ImPRESSED is a retailer, selling quality clothing Iron of a variety of styles.

Product

Clothing Irons (Handheld Irons, Compact Irons, Smart Irons)

Website resources

- www.amazon.ca
- www.walmart.ca

Product Attributes

Attributes

- Product id (UID)
- Model
- Brand
- Type
- Serial Number
- Description
- Rating
- Colour
- Temperature Settings
- Cord Length
- Price

ImPRESSED

Invoice

999 Main Street
Ottawa, ON K1S 3B9
343-558-9999

INVOICE #30144
DATE February 03,2024
CUSTOMER ID #2673
ASSOCIATE ID #560
ASSOCIATE NAME Krishna, U

Bill To

Peter Parker
906 Rideau Street
Ottawa, ON K1G 4A7
558-338-5698

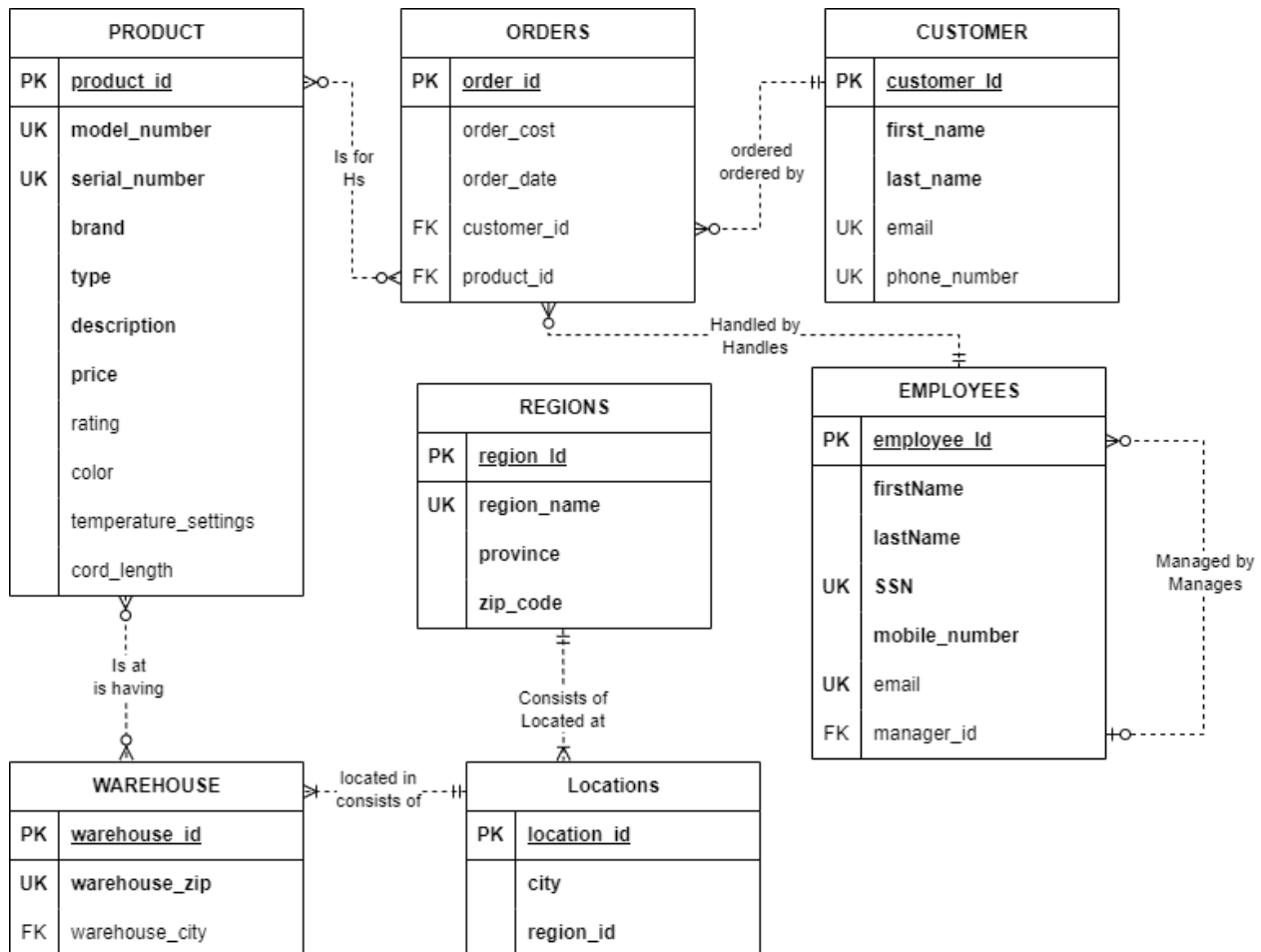
PRODUCT ID	MODEL	BRAND	DESCRIPTION	QTY	UNIT PRICE	TOTAL
3001031	BA106	Bajaj	6M Cord Iron	1	74.99	74.99
3001032	BA112	Bajaj	12M Cord Iron	1	89.99	89.99
3002029	HS72034HI	Hot steam	Handheld Iron	1	50.45	50.45
3002016	PC345	Peacock	Smart Iron 6modes	1	139.99	139.99
3002007	NO0032	Neuron	Compact Iron	1	130.00	130.00
3002009	PM999	Premium	Professional Grade Iron	2	149.99	299.98

SUBTOTAL		655.4
SALES TAX		887.5
SHIPPING & HANDLING		0.00
TOTAL DUE		1542.9

Thank you for shopping with us.

ER Diagrams

1 . Many – to – many unresolved



A **PRODUCT** MAY be in 0, 1 or more **ORDERS**

A **ORDERS** MAY have 0, 1 or more **PRODUCTS**

A **ORDERS** MUST have one and only **CUSTOMER**

A **CUSTOMER** MAY have 0, 1 or more **ORDERS**

A **PRODUCT** MAY be in 0, 1 or more **WAREHOUSES**

A **WAREHOUSE** MAY contain 0, 1, or more **PRODUCTS**

Each **REGIONS** must consist of one or many **LOCATIONS**

Each **LOCATIONS** must be located in one and only one **REGIONS**

Each **LOCATIONS** may consist of 0,1 or many **WAREHOUSES**

Each **WAREHOUSES** must be located in one and only one **LOCATIONS**

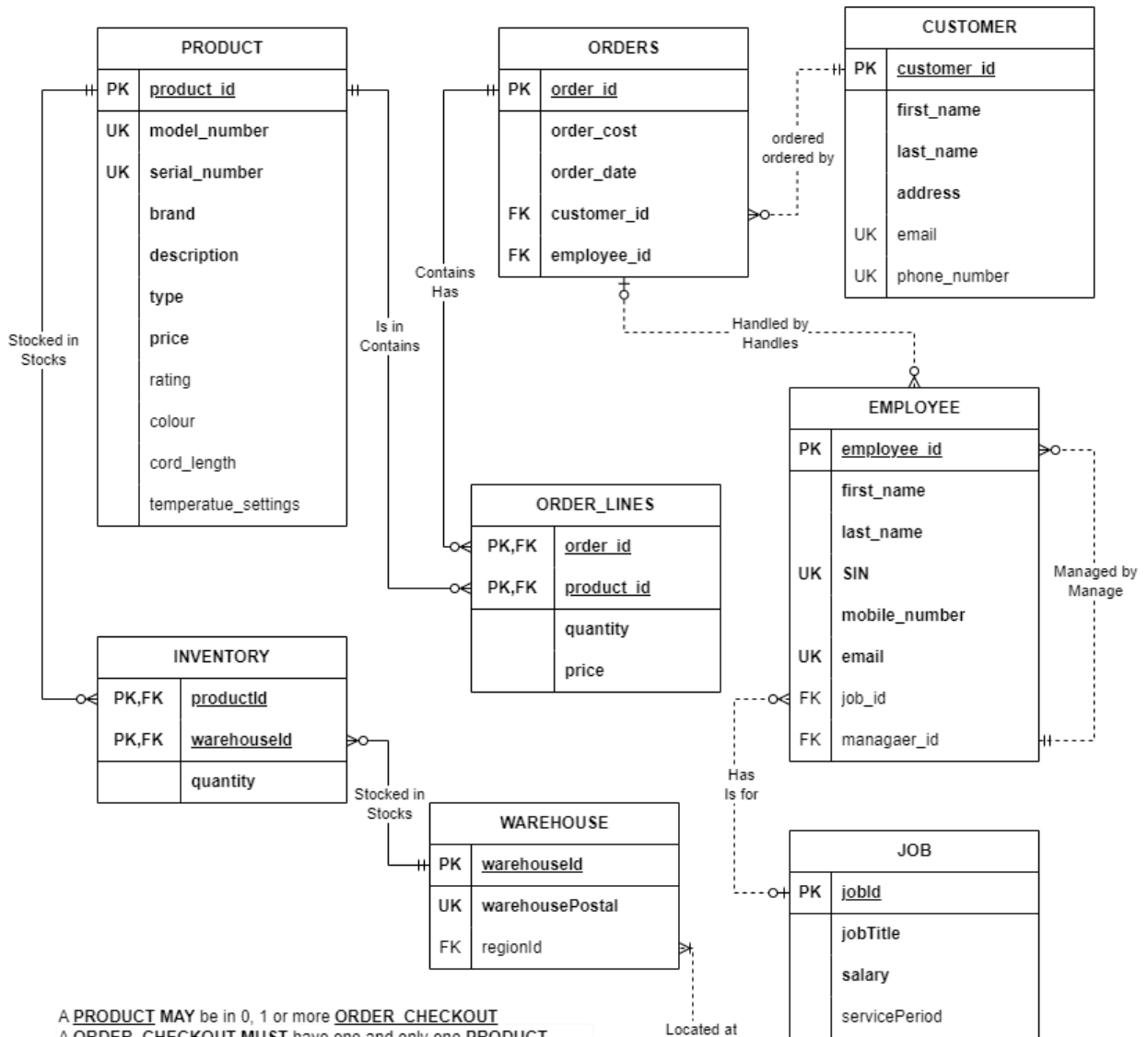
An **ORDERS** MUST be handled by one and only one **EMPLOYEES**

An **EMPLOYEE** MAY handle 0, 1 or more **ORDERS**

An **EMPLOYEE** MUST be managed by one and only one **MANAGER**

A **MANAGER** MAY manage 0, 1 or more **EMPLOYEES**

2 – Many to Many resolved



A PRODUCT MAY be in 0, 1 or more ORDER_CHECKOUT
A ORDER_CHECKOUT MUST have one and only one PRODUCT

A ORDER CHECKOUT MUST have one and only one ORDER
A ORDER MAY have 0, 1 or more ORDER CHECKOUT

A ORDER MUST have one and only CUSTOMER
A CUSTOMER MAY have 0, 1 or more ORDERS

A PRODUCT MAY stocked be in 0, 1 or more INVENTORY
A INVENTORY MUST stock have one and only one PRODUCT

A WAREHOUSE MUST be in one and only REGION
A REGION MAY have 0, 1 or more WAREHOUSES

A INVENTORY MUST be stocked in one and only one WAREHOUSE
A WAREHOUSE MAY contain 0, 1, or more INVENTORY

An EMPLOYEE MAY have a 0 or one JOB
A JOB MAY be done by 0, 1 or more EMPLOYEE

An EMPLOYEE **MUST** be managed by one and only one MANAGER
A MANAGER **MAY** manage 0, 1 or more EMPLOYEES

An ORDER **MUST** be handled by one and only one EMPLOYEES
An EMPLOYEE **MAY** handle 0, 1 or more ORDERS

Relational Model

PRODUCTS				
Key Type	Optionality	Column Name	Data Type	Length
pk *	*	product_id	UID	
uk	*	Model	varchar	20
	*	Brand	varchar	20
	*	Type	varchar	20
	*	serial_number	varchar	30
	*	Description	varchar	60
	O	Rating	decimal	3,2
	O	Colour	varchar	20
	O	temperature_settings	integer	
	O	cord_length	integer	
	O	price	decimal	6,2

WAREHOUSES				
Key Type	Optionality	Column Name	Data Type	Length
pk	*	warehouse_id	integer	
fk	*	location_id	integer	
uk	*	postal_code	varchar	7

INVENTORY				
Key	Optionality	Column Name	Data Type	Length
pk/fk	*	product_id	integer	
pk/fk	*	warehouse_id	integer	
	O	quantity	integer	

REGIONS				
Key Type	Optionality	Column Name	Data Type	Length
pk	*	region_id	integer	
uk	*	region_name	varchar	30
	O	province	varchar	30
uk	*	postal_code	varchar	7

LOCATIONS				
Key Type	Optionality	Column Name	Data Type	Length
pk	*	location_id	integer	
	O	city	varchar	30
fk	*	region_id	integer	
ORDER_LINES				

Key Type	Optionality	Column Name	Data Type	Length
pk/fk	*	order_id	integer	
pk/fk	*	product_id	integer	
	O	quantity	integer	
	O	price	decimal	6,2

ORDERS				
Key Type	Optionality	Column Name	Data Type	Length
pk	*	order_id	integer	
fk	*	customer_id	integer	
	O	order_date	date	
fk	*	employee_id	integer	

CUSTOMERS				
Key Type	Optionality	Column Name	Data Type	Length
pk	*	customer_id	integer	
	*	first_name	varchar	20
	*	last_name	varchar	20
uk	O	email	varchar	30
	O	phone	varchar	20

EMPLOYEES				
Key Type	Optionality	Column Name	Data Type	Length
pk	*	employee_id	integer	
	*	first_name	varchar	20
	*	last_name	varchar	20
uk	*	soc_sec_no	integer	
	*	hire_date	date	
	O	salary	decimal	9,2
fk	O	manager_id	integer	

PRODUCTS (product_id, model_number , serial_number, brand, description, type, price, rating, colour, cord_length, temperature_settings)

Additional Business Rules:

- Columns that are auto-generated: product_id (can be auto-incremented)
- Columns that have a default value: None
- Specific restrictions to column values: None

WAREHOUSES (warehouse_id, location_id, warehouse_zip, warehouse_city)

FK location_id → LOCATIONS

INVENTORY (product_id , warehouse_id , quantity)

FK product_id → PRODUCTS

FK warehouse_id → WAREHOUSES

REGIONS (region_id , region_name , province , zip_code)

LOCATIONS (location_id , city, region_id)

FK region_id → REGIONS

ORDER_LINES (order_id , product_id , quantity, price)

FK order_id → ORDERS

FK product_id → PRODUCTS

ORDERS (order_id , customer_id , order_cost, order_date, employee_id)

FK customer_id → CUSTOMERS

FK employee_id → EMPLOYEES

Additional Business Rules:

- Columns that are auto-generated: order_id (can be auto-incremented)
- Columns that have a default value: None
- Specific restrictions to column values: order_date should be the current date by default, and must be in the past.

CUSTOMERS (customer_id , first_name, last_name, email, phone)

Additional Business Rules:

- Columns that are auto-generated: customer_id (can be auto-incremented)
- Columns that have a default value: None
- Specific restrictions to column values: email and phone are required fields, and phone must be a valid phone number format.

EMPLOYEES (employee_id , first_name, last_name, soc_sec_no, hire_date, salary, manager_id)

FK manager_id → EMPLOYEES

Additional Business Rules:

- Columns that are auto-generated: employee_id (can be auto-incremented)
- Columns that have a default value: None
- Specific restrictions to column values: SSN must be unique and in a specific format, hire_date must be in the past, and salary should not be less than 0.00.