

Project 3

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1 Relational Schema

- **Store**(s_id, s_address, phone_number, manager_id UNIQUE NOT NULL)
FOREIGN KEY(manager_id) REFERENCES Employee(employee_id)
- **Employee**(e_id, e_name, s_id)
FOREIGN KEY(s_id) REFERENCES Store(s_id)
- **Manufacturer**(m_id, m_name)
- **Product**(p_id, p_name NOT NULL, unit_price NOT NULL, description, discount_percentage, m_id NOT NULL)
FOREIGN KEY(m_id) REFERENCES Manufacturer(m_id)
- **Paint**(p_id, base, color)
FOREIGN KEY(p_id) REFERENCES Product(p_id)
- **Tool**(p_id, type)
- **Has_in_stock**(p_id, s_id, quantity NOT NULL)
FOREIGN KEY(p_id) REFERENCES Product(p_id)
FOREIGN KEY(s_id) REFERENCES Store(s_id)
- **Customer**(email, c_name, c_address NOT NULL)
PRIMARY KEY(email)
- **Purchase**(p_id, amount NOT NULL, p_date NOT NULL, p_time NOT NULL)
- **Contains_purchase**(p_id, product_id, quantity NOT NULL)
FOREIGN KEY(p_id) REFERENCES Purchase(p_id)
FOREIGN KEY(product_id) REFERENCES Product(p_id)
- **Instore**(p_id, e_id)
FOREIGN KEY(p_id) REFERENCES Purchase(p_id)
FOREIGN KEY(e_id) REFERENCES Employee(e_id)
- **Online**(p_id, rating, delivery_fee NOT NULL, email NOT NULL)
FOREIGN KEY(p_id) REFERENCES Purchase(p_id)
FOREIGN KEY(email) REFERENCES Customer(email)

2 Stored Procedure

3 Application Program

4 Indexing

4.1 Index 1

4.2 Index 2

5 Visualisation

5.1 Vis 1

5.2 Vis 2

6 Creativity