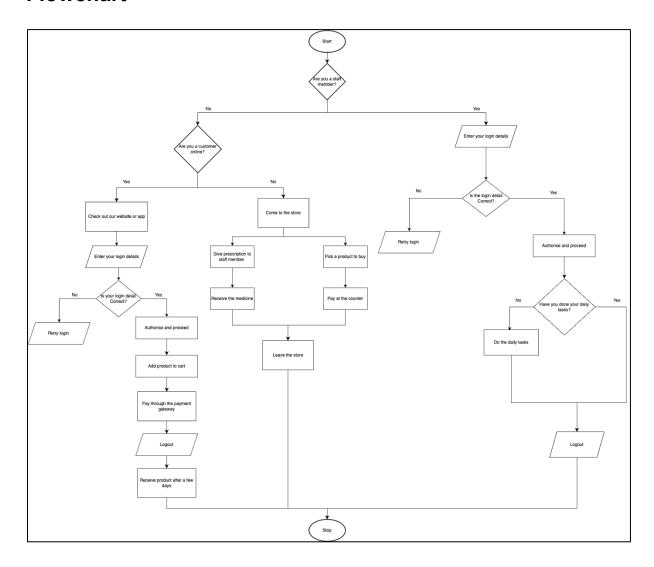# System Design Document

Pharmacy Management System   Client: Trafford Pharmaceuticals
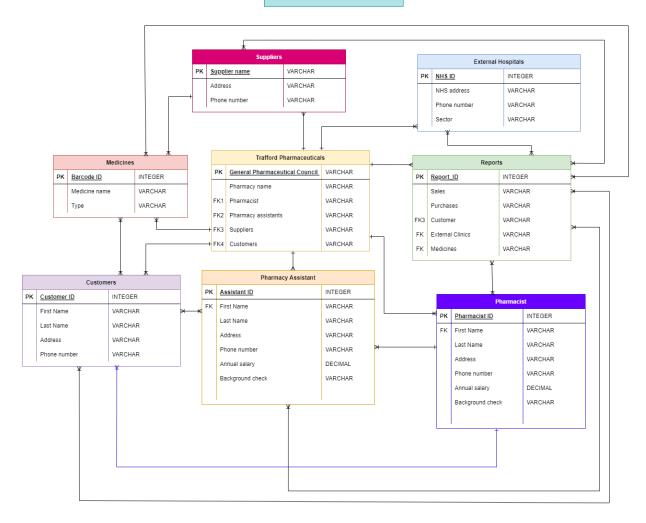
Flowchart

Group: Cyber ATTAK   Project Title: Pharmacy Management System

Entity Relationship Diagram

Trafford
Pharmaceuticals
ERD

Suppliers

PK	Supplier name	VARCHAR
	Address	VARCHAR
	Phone number	VARCHAR

External Hospitals

PK	NHS ID	INTEGER
	NHS address	VARCHAR
	Phone number	VARCHAR
	Sector	VARCHAR

Medicines

PK	Barcode ID	INTEGER
	Medicine name	VARCHAR
	Type	VARCHAR

Trafford Pharmaceuticals

PK	General Pharmaceutical Council	VARCHAR
	Pharmacy name	VARCHAR
FK1	Pharmacist	VARCHAR
FK2	Pharmacy assistants	VARCHAR
FK3	Suppliers	VARCHAR
FK4	Customers	VARCHAR

Reports

PK	Report_ID	INTEGER
	Sales	VARCHAR
	Purchases	VARCHAR
FK3	Customer	VARCHAR
FK	External Clinics	VARCHAR
FK	Medicines	VARCHAR

Customers

PK	Customer ID	INTEGER
	First Name	VARCHAR
	Last Name	VARCHAR
	Address	VARCHAR
	Phone number	VARCHAR

Pharmacy Assistant

PK	Assistant ID	INTEGER
FK	First Name	VARCHAR
	Last Name	VARCHAR
	Address	VARCHAR
	Phone number	VARCHAR
	Annual salary	DECIMAL
	Background check	VARCHAR

Pharmacist

PK	Pharmacist ID	INTEGER
FK	First Name	VARCHAR
	Last Name	VARCHAR
	Address	VARCHAR
	Phone number	VARCHAR
	Annual salary	DECIMAL
	Background check	VARCHAR

Risks And Issues

Possible Risks

Risk Title:	Risk Summary:	Risk Mitigation:
Scope creep	The risk that project scope may increase during design phase leading to complexity and higher costs towards the pharmacy management system.	Define clear project scope and objectives before the design phase and prioritise requirements based on their importance.
Integration issues	The risk that integration with existing systems or third-party systems will fail and result in compatibility issues and project delays.	Have an integration plan which outlines the interfaces and data exchange protocols with existing systems or third-party systems and conduct tests early in the design phase.
Technological issues	The risk that inappropriate technologies are used which cause technical challenges and increased development time.	Conduct an evaluation of the technology that will be used and consider factors such as scalability, compatibility, and reliability.

System Design - Legal, Social, Ethical and Professional Issues

Issue:	Issue Summary:	Issue Category:	Issue Mitigation:
Impact on stakeholders	During the design phase, the impact of the system must be considered such as	Social	Identify the potential social impacts of the pharmacy management system and engage

	job displacements and access to different services.		with stakeholders to received feedback about any concerns and incorporate this in the design process.
Accessibility	During the design phase, not all users may be considered such as disabled or elderly which means the system will not be accessible.	Ethical	Follow accessibility guidelines such as the Web Content Accessibility Guidelines (WCAG) and accommodate diverse user needs.
Technical skills	The end users of the system may not have the technical knowledge or skills required to use the system.	Professional	Ensure that pharmacy staff have professional training in place so they can use the system proficiently.
Compliance with regulations	The system design may not adhere to relevant laws and regulations such as industry-specific regulations (HIPAA for healthcare).	Legal	Conduct legal reviews of the pharmacy management system design and identify any legal compliance issues with the use of legal experts/consultants.