

### **Cairo University**

### **Faculty of Computers and Artificial Intelligence**

# **IS211: Introduction to Database Systems**

### **Super Market (Phase 2)**

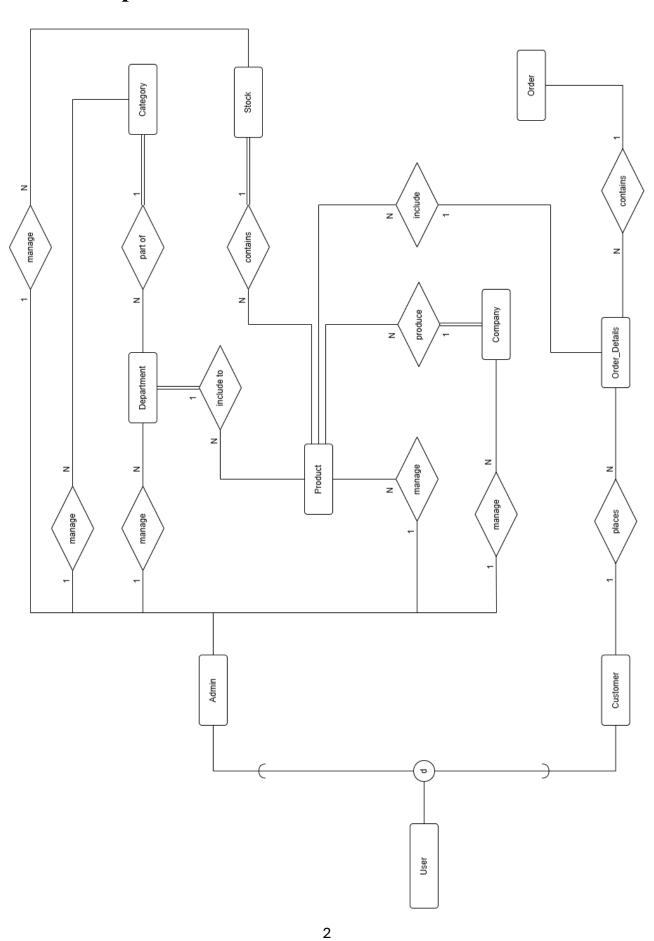
TA: Eng. Alia Magdy

### **Team Members:**

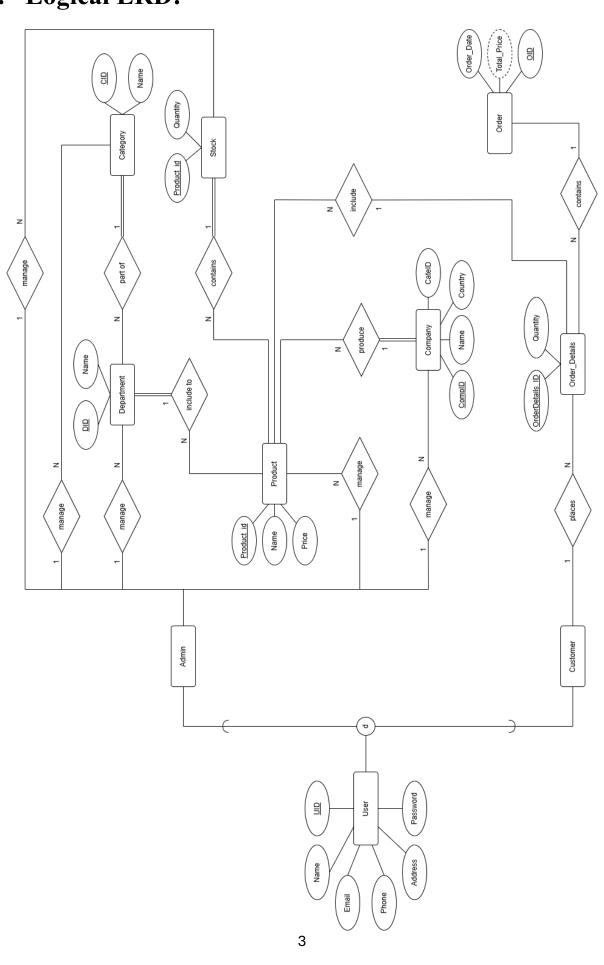
•	Mariam Badr Yehia Abd El-Naby	(S20)	20230391
•	John Ayman Demian	(S20)	20230109
•	George Malak Magdy Nashed	(S20)	20231042
•	Marawan Mohammed Badr	(S20)	20231157
•	Mohammed Atef Abd El-Kader	(S20)	20231143

Supervised: Dr. Ali Zidane El Qutaany

# I. Conceptual ERD:



# II. Logical ERD:



#### III. Physical ERD: CATEGORY INT CID PK VARCHAR NAME PART OF COMPANY DEPARTMENT PK INT COMPID STOCK INT DID PK PRODUCT\_QUANTITY INT CATE\_ID INT CID FΚ VARCHAR NAME INT PROD\_ID NAME VARCHAR COUNTRY VARCHAR PRODUCE CONTAINS INCLUDE TO PRODUCT USER PID PK INT UID PK ORDER INT DID FK INT PK VARCHAR NAME FΚ TOTAL\_PRICE CHAR EMAIL DECIMAL INT COMPID FK VARCHAR PHONE DATETIME ORDER\_DATE VARCHAR NAME VARCHAR ADDRESS DECIMAL PRICE BOOL IS\_ADMIN VARCHAR PASSWORD INCLUDE CONTÂIN ORDER\_DETAILS PLACES OID FΚ INT PID FK INT FΚ INT ORDER\_ID QUANTITY 4

# IV. Requirements

	Requirement	Description
RQ001		Enable administrator login functionality.
RQ002		Allow administrators to register an account.
RQ003		Allow administrators to (add, modify, delete) company records.
RQ004	Admin Functions	Allow administrators to (add, modify, delete) product categories.
RQ005		Allow administrators to (add, modify, delete) departments.
RQ006		Allow administrators to (add, modify, delete) stock quantity records.
RQ007		Allow administrators to (add, modify, delete) products.
RQ008		Enable customer login functionality.
RQ009	Customer Functions	Allow customers to register an account.
RQ010		Allow customers to (place, modify, cancel or delete) orders.
RQ011	Most Purchased Product  Retrieve the product with the highest customer count.	
RQ012	Unsold Products by Month	Identify products with no sales in a specified month.
RQ013	Inactive Customers	Identify customers inactive for the past year.
RQ014	Top Purchasing Customer	Identify the customer with the highest monthly purchase.
RQ015	Sales Comparison	Compare sales between food and electronic products.
RQ016	Product Purchase Summary	Retrieve product details with customer purchase counts.