



DATABASE (SECD2523)

SECTION 08

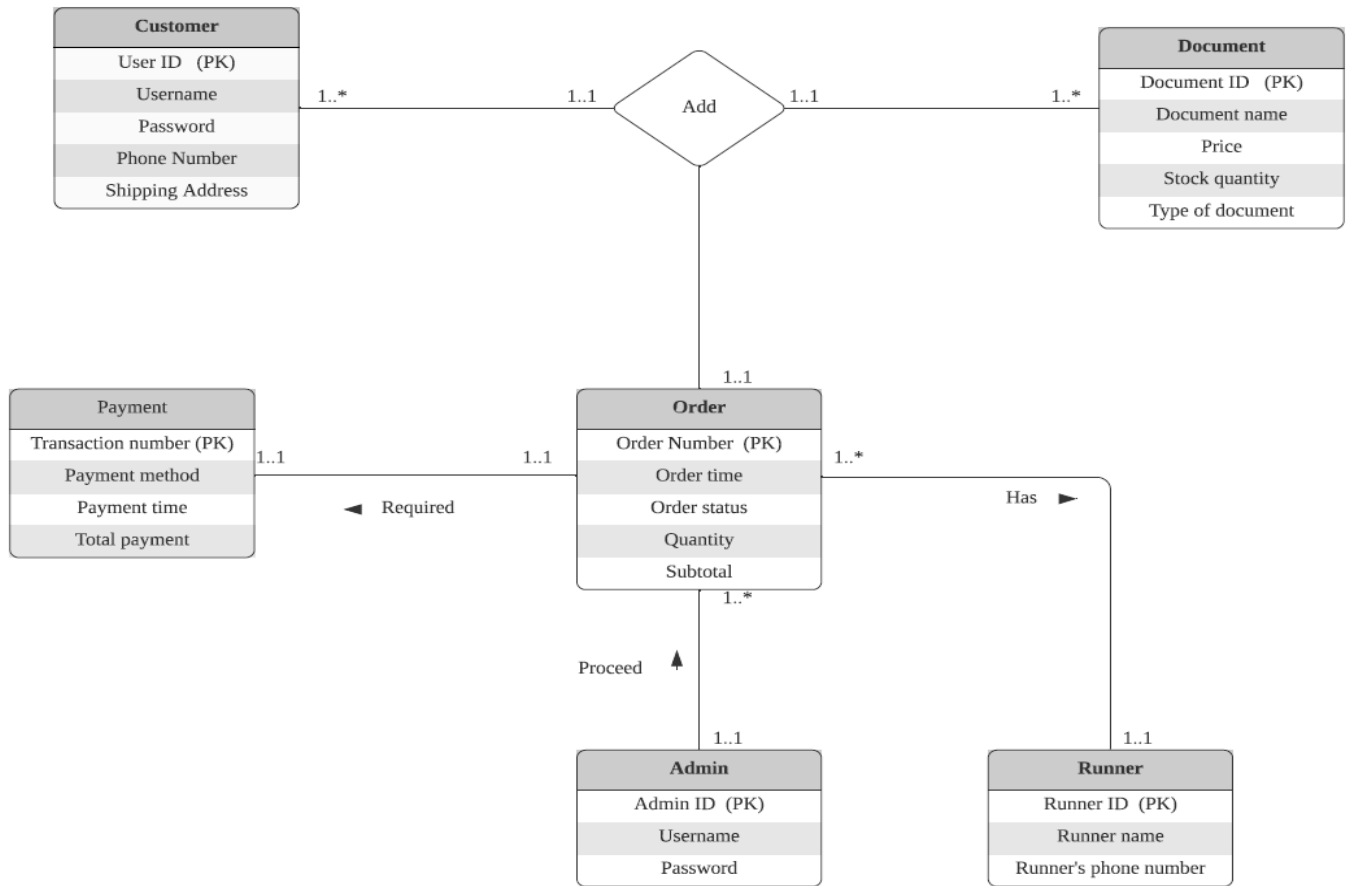
GROUP DEFENDER

PHASE 3

Student's Name	1. NURSYAFRINA BINTI AHMAD (A19EC0139) 2. ONG YIN REN (A19EC0204) 3. KOH XIN YI (A19EC0064) 4. NUR HIDAYAH BINTI HAMRI (B19EC0046)
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Submission Date	14th January 2021

1.0 Conceptual Database Design

1.1 Entity Relational Diagram



2.0 Data Dictionary

2.1 Data Dictionary for Conceptual Database Design

Entity Name	Attributes	Description	Data Type & Length	Nulls	Multivalued
Customer	Username	Username for customer	30 variable character	No	No
	User ID	Uniquely identify a customer	Number	No	No
	Password	Password for the username	20 variable character	No	No
	Phone number	Phone number of customer	Number	No	No
	Shipping address	Address of customer	50 variable character	No	No

Document	Document ID	Uniquely identify document	Number	No	No
	Document name	Name of document	30 variable character		
	Price	Price of document	Decimal	No	No
	Stock quantity	Quantity of document customer purchase	Number	No	No
	Type of document	Type of document customer purchase	10 variable character	No	No
Order	Order number	Uniquely identify order	20 variable character	No	No
	Order time	Time of order will deliver	Timestamp	No	No
	Order status	Status of order	30 variable character	No	No
	Quantity	Quantity of document in an order	Number	No	No
	Subtotal	Total price of document in an order	Decimal	No	No
Admin	Admin ID	Uniquely identify id	Number	No	No
	Username	Name to log into the application	30 variable character	No	No
	Password	Key to login with the id successfully	20 variable character	No	No
Runner	Runner ID	Uniquely identify id	Number	No	No
Payment	Transaction number	A reference for the customer and the shop	Number	No	No
	Payment method	Types of method to make payment	30 variable character	No	No
	Payment time	Time of making the payment	Timestamp	No	No
	Total payment	Total payment pay by the customer	Decimal	No	No

3.0 System's functional requirement

3.1 Data Requirement

Based on the interview with the shop owner, the data requirements are determined as below:

Entity	Data to be stored	Requirements of Data
Customer	<ol style="list-style-type: none"> 1. Username 2. User ID 3. Password 4. Phone number 5. Shipping address 	
Document	<ol style="list-style-type: none"> 1. Document ID 2. Document name 3. Price 4. Stock quantity 5. Type of document 6. Characteristic of document 	<p>[3] Price shown should be included with tax GST. No further add on after that.</p> <p>[6] Characteristic document such as pages, color, set</p>
Order	<ol style="list-style-type: none"> 1. Order number 2. Order time 3. Order status 4. Quantity 5. Subtotal 6. Shipping Fee 7. Grand price 8. Delivery Time 9. Delivery ID 	<p>[1] Order number should be automatically generated by system.</p> <p>[5] Subtotal = (price*quantity) whereas the price refers to the Document entity</p> <p>[7] Grand price = subtotal + delivery fee</p> <p>[8] Delivery time is the time which the product id delivered</p> <p>[9] Delivery ID should be automatically generated by system.</p>
Runner	<ol style="list-style-type: none"> 1. Runner name 2. Runner ID 3. Runner's phone number 	<p>[2] Every Runner have their own and different ID</p> <p>[3] Runner payment follow how many trips they make to deliver document</p>

	<ol style="list-style-type: none"> 4. Runner payment 5. Order picked up 6. Order delivered 	
Payment	<ol style="list-style-type: none"> 1. Transaction number 2. Payment method 3. Payment time 4. Total payment 	[3] Payment time is the time which the order delivered
Notification	<ol style="list-style-type: none"> 1. Notification number 2. Notification contains 3. Notification time 4. Target notification 	[2] Notification is the type of message sent to the customer.
Admin	<ol style="list-style-type: none"> 1. Admin name 2. Admin ID 3. Admin's phone number 4. Username 5. Password 	[2] Admin has his/her own ID

3.2 Transaction Requirements

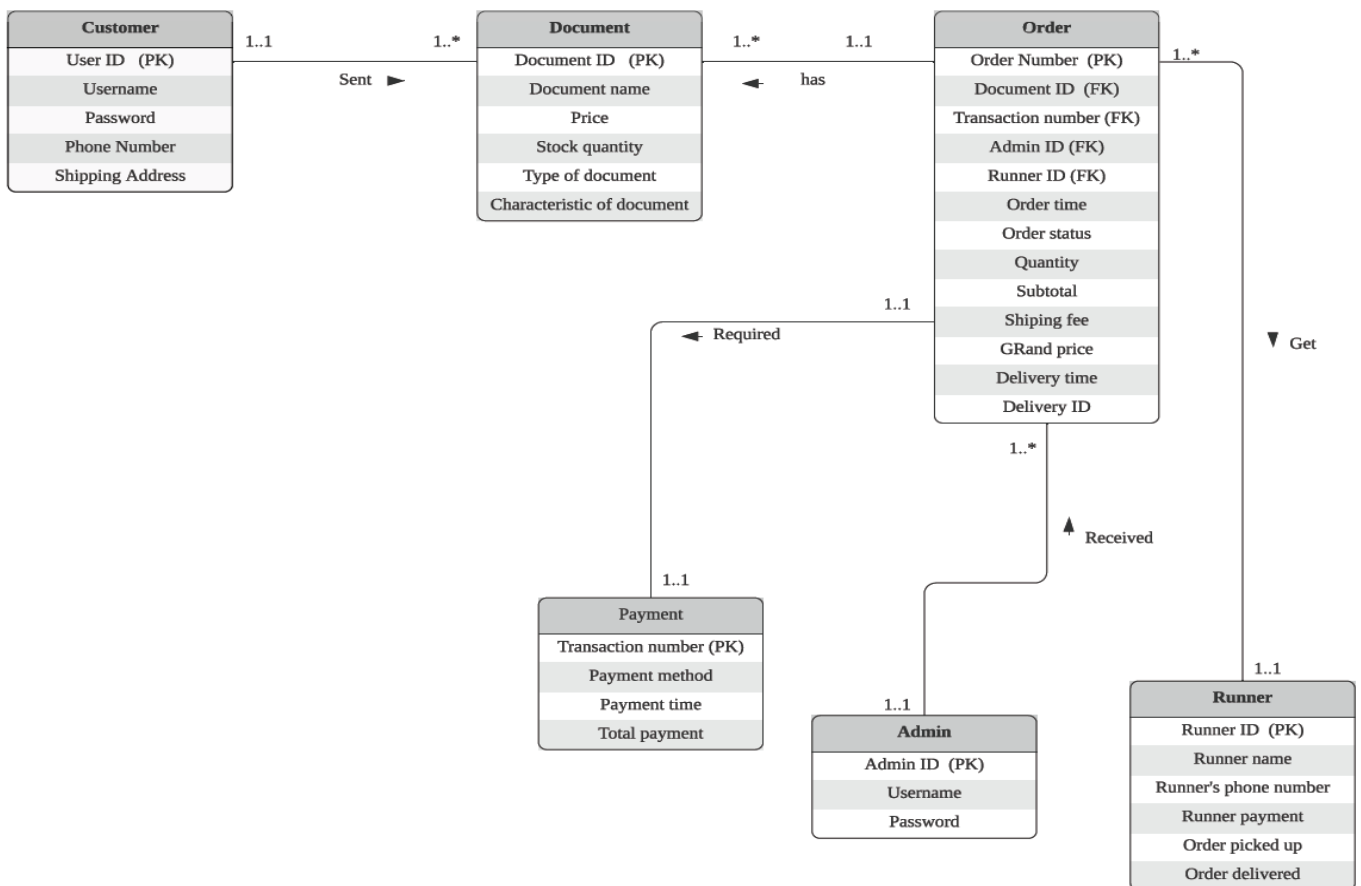
The transaction requirement are identified based on four type of transaction (Data entry, Data update, Data deletion, Data queries)

Entity	Data	Data Entry	Data Update	Data Deletion	Data Queries
Customer	Username User ID Password Phone number Shipping address	Sign up by customer	Update profile info by customer	Delete account by customer	Query on customer data by admin
Document	Document ID Document name Price Stock quantity Type of document Characteristic of document	Enter document information by customer/student	Update document information by customer/student	Delete document information by customer/student	Search for document by customer, student, admin
Order	Order number Order time Order status Quantity Subtotal Shipping Fee Grand price Delivery time Delivery ID	Confirm order information by customer/student	Update order status by admin	Cancel order by admin	Query on order by admin
Runner	Runner name Runner ID Runner's phone number Runner payment Order picked up Order delivered	Enter order ID by admin	Update order pickup and delivered by admin	Delete order status by admin	Query on runner by admin
Payment	Transaction number Payment method Payment time Total payment	Enter bank, transaction number & payment date by customer/student	Confirm payment by admin	Delete payment by admin	Query payment by admin
Notification	Notification number	Enter notification order status by	Update the notification status	Delete the notification	

	Notification contains Notification time Target notification	admin	order by admin	status order by admin	
Admin	Admin name Admin ID Admin's phone number Username Password	Enter order ID to runner. Enter notification order status to the customer.	Update order, payment and notification by admin	Delete document, order, payment and notification	Query on admin by admin

4.0 Logical Database Design

4.1 Logical Entity Relational Model



Meeting Logs Phase 3

Date: 10st January 2021

Attendance:

Team-mate name	Signatures
1. NURSYAFRINA BINTI AHMAD	
2. ONG YIN REN	
3. KOH XIN YI	
4. NUR HIDAYAH BINTI HAMRI	

Discussion Results/Findings:

We discuss the conceptual entity relational diagram by determining the relationship between every entity in the system. We also revise the logical entity relational diagram after receiving doctor feedback on Trello. Besides, we identify the data type and length of each attribute. The present of null value and multivalued also identified.

Contribution/Ideas:

Team-mate name	Contributions/Ideas
1. NURSYAFRINA BINTI AHMAD	<ul style="list-style-type: none">- Proposes some idea during the discussion.- Complete the Data Dictionary.
2. ONG YIN REN	<ul style="list-style-type: none">- Proposes some idea during the discussion.- Complete the logical ERD.
3. KOH XIN YI	<ul style="list-style-type: none">- Proposes some idea during the discussion.- Record the meeting.
4. NUR HIDAYAH BINTI HAMRI	<ul style="list-style-type: none">- Proposes some idea during the discussion.- Complete the conceptual ERD.- Revise the logical ERD.