EER DIAGRAM REPORT

&

RELATIONAL SCHEMA

Parts 1 & 2 Report

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EER REPORT

*FOOD ORDERING DB*:

* **ASSUMPTIONS**:
  + Assumed that PRODUCT is a single consumable item that is in a N to 1 relationship with ORDERS.
  + Assumed that PRODUCTS also need a Price attribute.
  + Assumed CUSTOMERS are available to multiple payments to pay off a single ORDER.

* **CUSTOMERS** is an entity that consists of attributes:
  + IdNo: made unique and primary key of our CUSTOMERS relational in order to keep track of different customers.
  + Username: a unique string of 8-12 characters because there cannot be clashing usernames.
  + Email: a unique string of 100 max characters because clashing emails would mean the account already exists.
  + Name: consists of a single string, ex: “J.Wong”.
  + Address: Maximum of a 256 character string.
  + PhoneNo: 12 character string.
  + Password: a string of 8-12 characters.
  + CreatedDate: Datetime.
  + Amt\_owed: (Added) an integer that can be derived from attributes from ORDERS relational.
* **ORDERS** is a weak entity linked to CUSTOMERS, PRODUCTS, and in relation to CUSTOMER\_PAYMENTS because it cannot exist without the CUSTOMERS ordering something, or without available of PRODUCTS an order cannot be made. It is in a relationship to CUSTOMER\_PAYMENTS because it does not depend on CUSTOMER\_PAYMENTS.
  + Order\_ID: (Added) a unique integer primary key that tracks different orders.
  + Total\_amt\_paid: (Added) an integer that is added to track how much the customers has paid off the order.
  + Total\_price: an integer tracking the total price of all products ordered.
  + Is\_Paid: (Added) Boolean attribute to let us know whether an order is paid off.
* **PRODUCT** is an entity that consists of attributes:
  + ProductID: A unique integer primary key for each product.
  + Description: a string describing the product.
  + Product\_Image: an image file of the product.
  + Price: (Added) an integer that represents the price of the product.
  + Disjointed into 5 types of product:
    - APPETIZER, SALAD, BEVERAGE, MAINDISH, DESSERT
* **CUSTOMER\_PAYMENTS** is an entity that consist of attribute:
  + Payments\_ID: a unique integer primary key that will keep track of multiple payments.
  + Amt\_paid: An integer that keeps track of how much the customer paid off in a specific order.
* **Entity Relationship**:
  + CUSTOMERS is in a 1:N relationship with ORDERS
  + ORDERS is in a 1:N relationship with PRODUCTS
  + PRODUCTS is in a N:1 relationship with ORDERS
  + CUSTOMERS is in a 1:N relationship with CUSTOMER\_PAYMENTS
  + ORDERS is in a 1:N relationship with CUSTOMER\_PAYMENTS

RELATIONAL SCHEMA

**FOOD ORDERING**

CUSTOMERS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| IdNo | Email | Username | Name | Address | PhoneNo | Password | CreatedDate |

ORDERS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| OrderId | OrderDate | Total\_Amount\_Paid | Total\_Price | CustomerId |

PRODUCTS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ProductId | Price | Product\_Image | Description | Type | OrderId |

CUSTOMER\_PAYMENTS

|  |  |  |  |
| --- | --- | --- | --- |
| PaymentId | AmtPaid | CustomerId | OrderId |