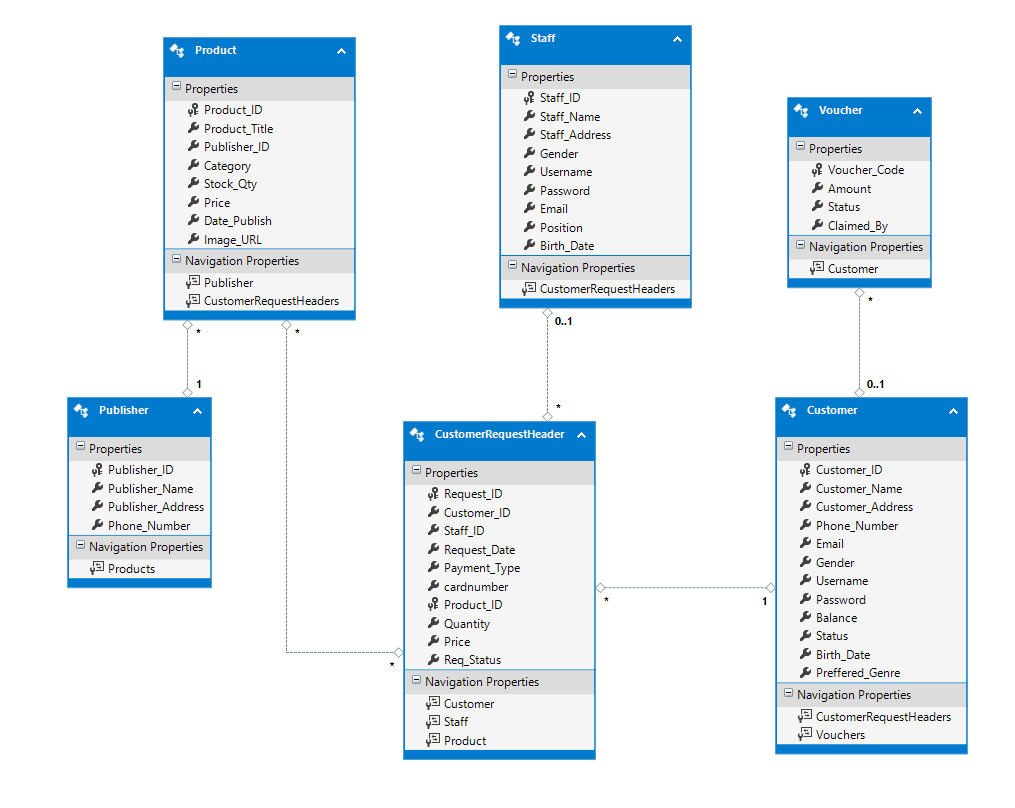


**Logical ERD**



**Conceptual ERD**

**Data Dictionary**

Database

|  |  |
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| **Name** | **Description** |
| Publisher.Publisher\_ID | Primary key of Publisher table, used to save the Publisher ID, format : PBL[0-9] [0-9] [0-9] [0-9] [0-9] |
| Publisher.Publisher\_Name | Used to save the Publisher Name, required (not null) |
| Publisher.Publisher\_Addres | Used to save the Publisher Address, required (not null) |
| Publisher.Phone\_Number | Used to save the Publisher Phone, required (not null) |
| Product.Product\_ID | Primary key of Product table, used to save the Book ID, format : PRD[0-9] [0-9] [0-9] [0-9] [0-9] |
| Product.Product\_Title | Used to save the Book Title, required (not null) |
| Product.Publisher\_ID | Foreign key of Publisher.Publisher\_ID |
| Product.Category | Used to save the Book Category, required (not null) |
| Product.Stock\_Qty | Used to save the Book Stock, required (not null) |
| Product.Price | Used to save the Book Price, required (not null) |
| Product.Date\_Publish | Used to save the Book Date Publish, required (not null) |
| Product.Image\_URL | Used to save the Book Cover Picture, can be null |
| Transaction.Transaction\_ID | Primary key of Transaction table, used to save Transaction ID, format : TR[0-9] [0-9] [0-9] [0-9] [0-9] |
| Transaction.Transaction\_Date | Used to save the transaction date |
| Transaction.Request\_ID | Foreign key of CustomerRequestHeader.Request\_ID |
| Transaction.Product\_ID | Foreign key of Product.Product\_ID |
| Transaction.Quantity | Used to save the quantity sent in the transaction |
| Staff.Staff\_ID | Primary key of staff table, used to save the ID of each staff, format : STF[0-9] [0-9] [0-9] |
| Staff.Staff\_Name | Used to save the staff name, required (not null) |
| Staff.Staff\_Address | Used to save the staff address, required (not null) |
| Staff.Gender | Used to save the staff gender, required (not null) check male or female |
| Staff.Username | Used to save the staff username, required (not null) max character is 20, must be unique |
| Staff.Password | Used to save the staff password, required (not null) max character is 25 |
| Staff.Email | Used to save the staff email, required (not null), must be unique |
| Staff.Position | Used to save the staff position, required (not null) |
| Staff.Birth\_Date | Used to save the staff birthdate, required (not null) |
| Customer.Customer\_ID | Primary key of Customer table, used to save the ID of customer, format : CST[0-9] [0-9] [0-9] [0-9] [0-9] |
| Customer.Customer\_Name | Used to save the customer name, required (not null) |
| Customer.Customer\_Address | Used to save the customer address, required (not null) |
| Customer.Phone\_Number | Used to save the customer phone number, required (not null) must be unique |
| Customer.Email | Used to save the customer email, required (not null) must be unique |
| Customer.Gender | Used to save the customer gender, required (not null) check either male or female |
| Customer.Username | Used to save the customer username, required (not null), max character is 20, must be unique |
| Customer.Password | Used to save the customer password, required (not null), max character is 25 |
| Customer.Balance | Used to save the customer balance, can be null (starting is 0) |
| Customer.Status | Used to save the customer status, required (not null), to know whether the account is verified or not |
| Customer.Birth\_Date | Used to save the customer birth date, required (not null) |
| Customer.Preffered\_Genre | Used to save the customer favorite genre, required (not null) |
| Voucher.Voucher\_Code | Primary key of voucher table, to save the code of the voucher length is 15 (alphanumeric) |
| Voucher.Amount | Used to save the amount of the voucher, required (not null) |
| Voucher.Status | Used to save the status of voucher (claimed or not claimed) |
| Voucher.Claimed\_By | Foreign key of Customer.Customer\_ID, can be null |
| CustomerRequestHeader.Request\_ID | Primary key CustomerRequestHeader, format : RQ[0-9] [0-9] [0-9] [0-9] [0-9] |
| CustomerRequestHeader.Customer\_ID | Foreign key of Customer.Customer\_ID |
| CustomerRequestHeader.Staff\_ID | Foreign key of Staff.Staff\_ID |
| CustomerRequestHeader.Request\_Date | Used to save the request date of the customer, required (not null) |
| CustomerRequestHeader.Payment\_Type | Used to save the payment type of customer, required (not null) |
| CustomerRequestHeader.cardnumber | Used to save the card number of customer (if payment type is credit card) |
| CustomerRequestDetail.Request\_ID | Foreign Key of CustomerRequestHeader.Request\_ID and Primary Key of CustomerRequestDetail |
| CustomerRequestDetail.Product\_ID | Foreign Key of Product.Product\_ID and Primary Key of CustomerRequestDetail |
| CustomerRequestDetail.Quantity | Used to save the quantity left to be sent, required (not null) |
| CustomerRequestDetail.Price | Used to save the current price of order, required (not null) |
| CustomerRequestDetail.Req\_Status | Used to save the status of customer’s request, required (not null) |

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| **Name** | **Description** |
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