member
- 🔑 memberNo INT
- ◇ memberName VARCHAR(45)
- ◇ memberAddress VARCHAR(50)
- ◇ memberContact INT
- ◇ memberDOB DATE

Indexes

book
- 🔑 ISBN VARCHAR(45)
- ◇ bookTitle VARCHAR(45)
- ◇ bookPrtDate DATE
- ◇ bookCopies INT
- ◈ publisher_publisherID INT

Indexes

author
- 🔑 authorID INT
- ◇ authorName VARCHAR(45)

Indexes

loan
- 🔑 member_memberNo INT
- 🔑 book_ISBN VARCHAR(45)
- ◇ dueBackDate DATE

Indexes

bookAuthor
- 🔑 book_ISBN VARCHAR(45)
- 🔑 author_authorID INT

Indexes

publisher
- 🔑 publisherID INT
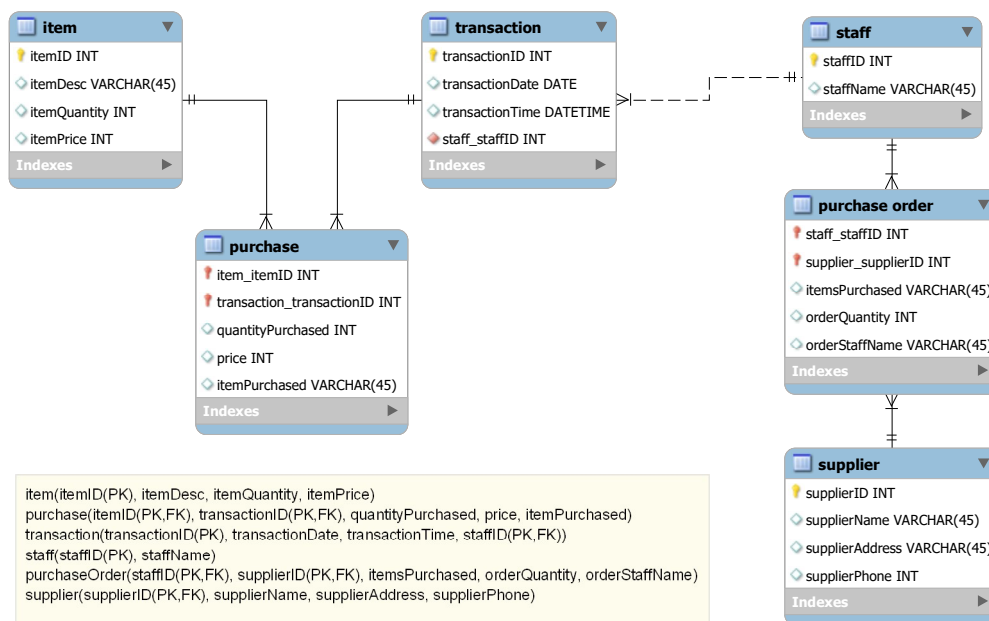- ◇ publisherName VARCHAR(45)

Indexes

```
member(memberNo(PK), memberName, memberAddress, memberContact, memberDOB)
loan(memberNo(PK,FK), ISBN(PK,FK), dueBackDate)
book(ISBN(PK), bookTitle, prtDate, copies)
bookAuthor(ISBN(PK,FK), authorID(PK), authorName)

2nd NF: author(authorID, author)
       bookAuthor(ISBN(PK,FK), authorID(PK,FK))

3rd NF: publisher(publisherID(PK), publisherName)
       book(ISBN(PK), bookTitle, prtDate, copies, publiserID(FK))
```

item
- 🔑 itemID INT
- ◇ itemDesc VARCHAR(45)
- ◇ itemQuantity INT
- ◇ itemPrice INT

Indexes

transaction
- 🔑 transactionID INT
- ◇ transactionDate DATE
- ◇ transactionTime DATETIME
- ◈ staff_staffID INT

Indexes

staff
- 🔑 staffID INT
- ◇ staffName VARCHAR(45)

Indexes

purchase
- 🔑 item_itemID INT
- 🔑 transaction_transactionID INT
- ◇ quantityPurchased INT
- ◇ price INT
- ◇ itemPurchased VARCHAR(45)

Indexes

purchase order
- 🔑 staff_staffID INT
- 🔑 supplier_supplierID INT
- ◇ itemsPurchased VARCHAR(45)
- ◇ orderQuantity INT
- ◇ orderStaffName VARCHAR(45)

Indexes

supplier
- 🔑 supplierID INT
- ◇ supplierName VARCHAR(45)
- ◇ supplierAddress VARCHAR(45)
- ◇ supplierPhone INT

Indexes

```
item(itemID(PK), itemDesc, itemQuantity, itemPrice)
purchase(itemID(PK,FK), transactionID(PK,FK), quantityPurchased, price, itemPurchased)
transaction(transactionID(PK), transactionDate, transactionTime, staffID(PK,FK))
staff(staffID(PK), staffName)
purchaseOrder(staffID(PK,FK), supplierID(PK,FK), itemsPurchased, orderQuantity, orderStaffName)
supplier(supplierID(PK,FK), supplierName, supplierAddress, supplierPhone)

Normalisation:
1st:
2nd:
3rd: staff(staffID(PK, staffName)
      transaction(transactionID(PK), transactionDate, transactionTime, staffIDFK))
```