

Bookstore manager Python app integrated with MySQL DB

Student name

ID

Mohamed ElGemeie

20200026

Business rules

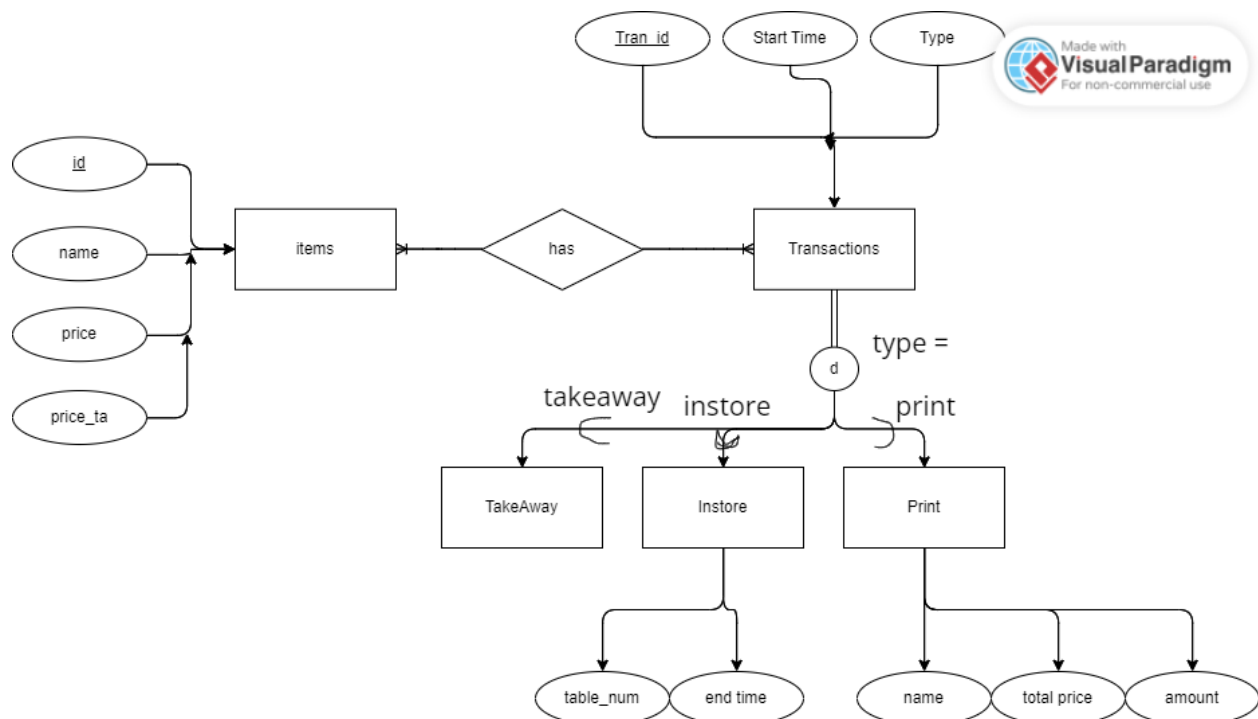
This project aims to assist a bookstore/ café that serves beverages , and sells books, prints, and monetizes Wi-Fi. The business owner requests to calculate a Wi-Fi charge tagged with each table in the store, calculate the total receipt of any transaction, and store any sold books with relevant information.

Remarks

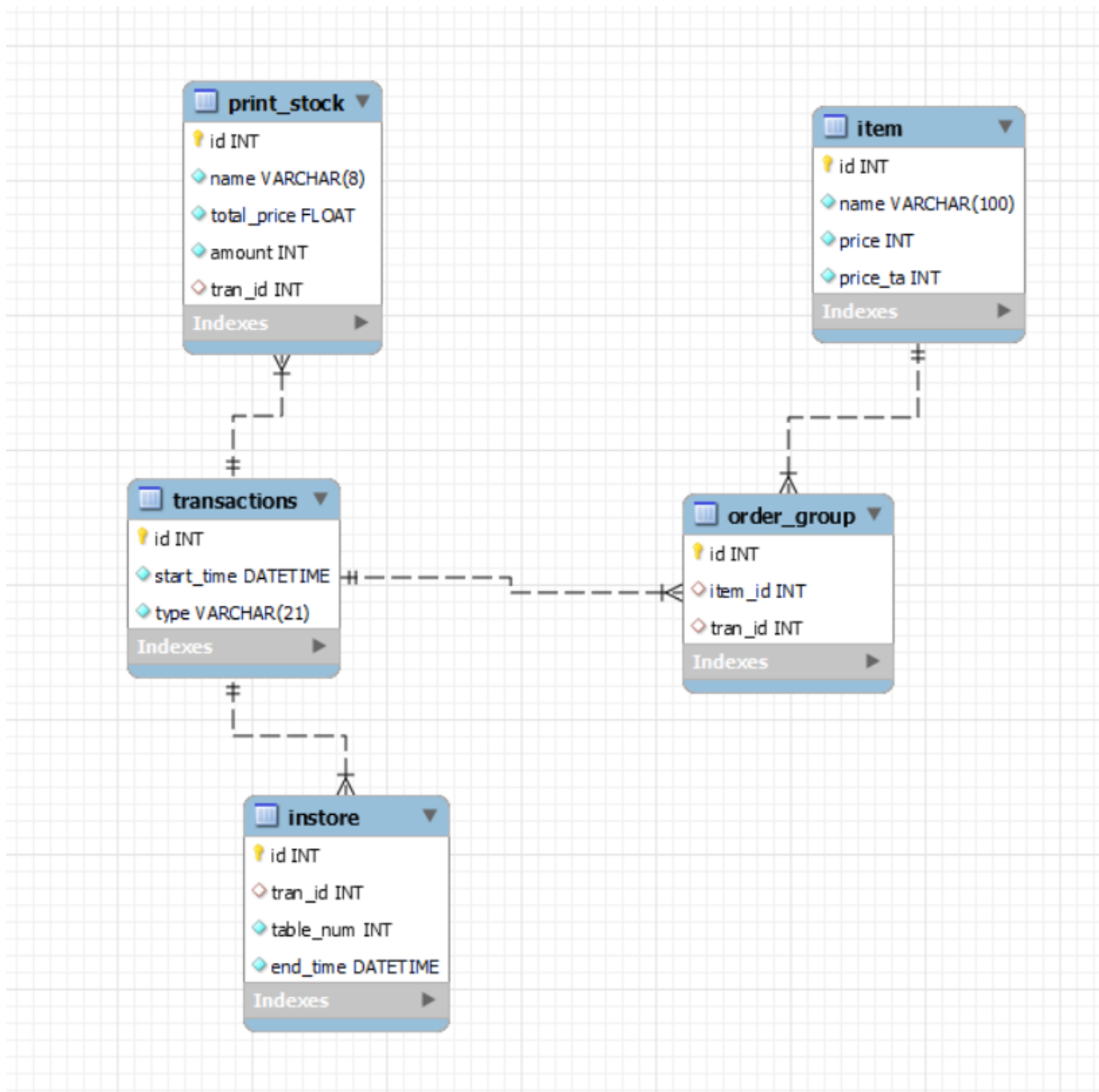
- There are three types of transactions (Instore, takeaway, print/books).
- Each transaction type has a start time.
- A transaction could have one or more items, and an item could be had by one or more transaction.
- Each item has a price, a takeaway price, and a name.
- Instore transactions store the end time and table number of the transaction.
- Print/Book transactions have a name, total price, and amount.
- A transaction could only be either a takeaway, or instore, or print, and not both at any time.

Database Design

ERD:



MySQL DB design:



Functional dependencies:

Print_stock:

- Id -> {id, name, total price, amount, tran_id}

1st normal form

Transactions:

- Id -> {start time, type}
- Start time -> {id, type}

BCNF normal form

Instore:

- Id \rightarrow {tran_id, table number, end time}
- End time \rightarrow {id, tran_id, table_num, id}

BCNF normal form

Order_group:

- Id \rightarrow {item_id, tran_id}

1st normal form

Item:

- Id \rightarrow {name, price, price_ta}
- Name \rightarrow {id, price, price_ta}

BCNF normal form

Results

Books/كتب	Takeaway/تيك اوى	Tables/طاولات	
Menu			
<input type="text"/>			
Delete		Confirm	Start Time/ابدأ الوقت 0:00:00
bondok/hazelnut coffe pepsi cappuccino dodo dbs latte espresso(s) espresso(d) florida flavor frappuccino caramel french coffe guafa/peer fresh hot chocolate hot cider icecream chocolate icercream ice latte ice coffe lemon/lemon-mint latte		<div><div>4</div><div>5</div><div>6</div><div>7</div><div>8</div></div> <div><div>13</div><div>14</div><div>15</div><div>16</div><div>17</div><div>18</div><div>19</div></div> <div><div>0</div><div>1</div><div>2</div><div>3</div><div>9</div><div>10</div><div>11</div><div>12</div></div>	Wifi 0 Total 0 < > 0 Wifi change/تغير الواى فاى

Books/كتب	Takeaway/تيك اوى	Tables/طاولات	
Errors are shown here/أخطاء المستخدم			
Book Name/اسم الكتاب	Printed paper/عدد الورق للطباعة		
<input type="text"/>	<input type="text"/>		
Book Price/سعر الكتاب		Confirm	
<input type="text"/>			
Book amount/العدد			
<input type="text"/>			
Confirm			