BOOKMANAGEMENT SYSTEM

Architecture

Abstract

Books have long been the best friend of the civilized society. Apart from providing knowledge, it is the propagation of
communication that transcends into an intellectual and psychological broadening of the minds of the superior species, the humans.
Most printed material have opened new domains of evolution, ideas, research, and a barter of information. The Online book shop
carries the tradition of a better improved society that chooses to buy books, trace and track readers as well as buyer-sellers to
interact.

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[Email address]

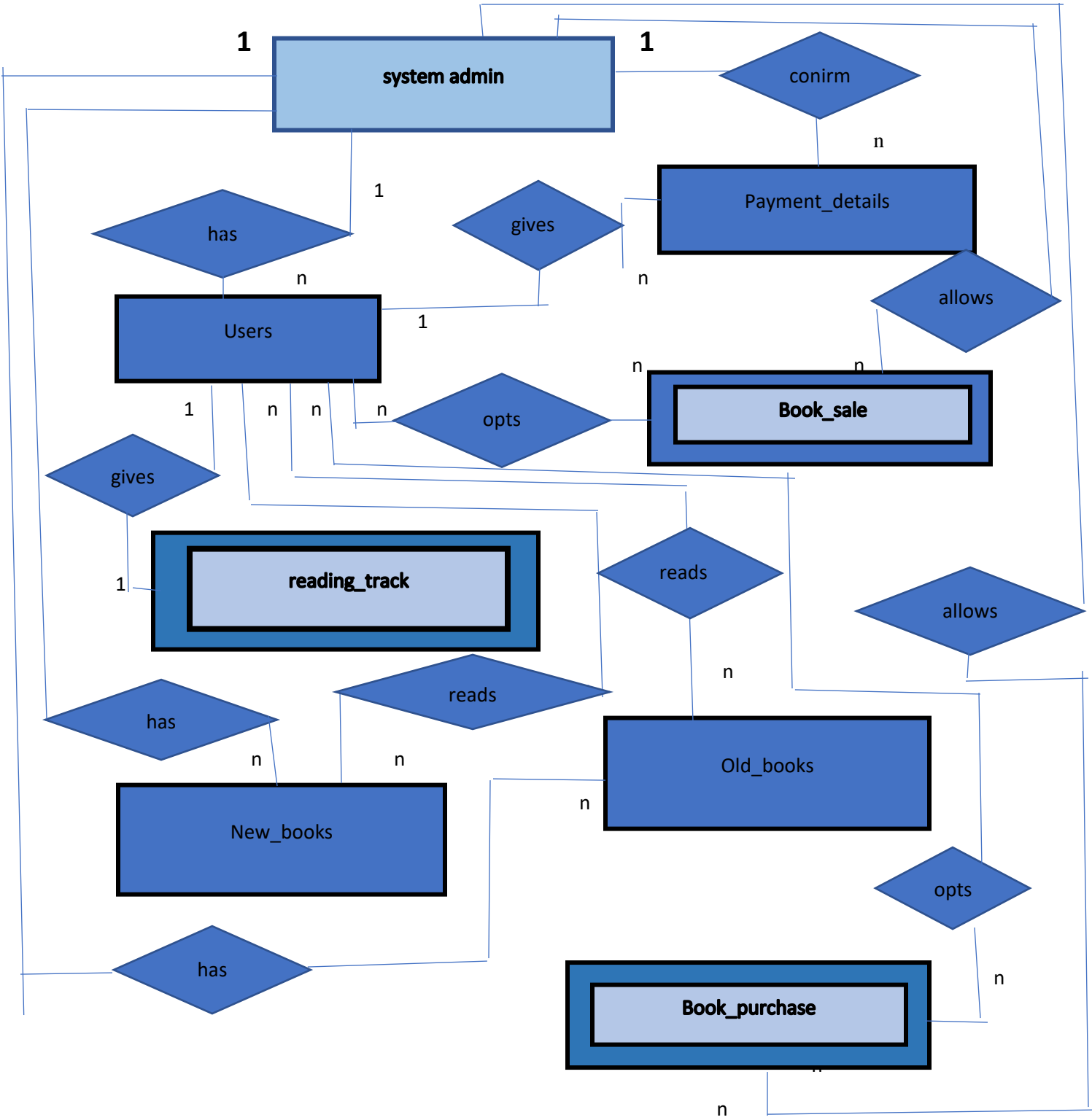# Table of Contents

Abstract

ENTITY RELATIONSHIP DIAGRAM: Shows the complete structure to prepare the database of the system.

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DATA DICTIONARY : (FOR DATABASE : (onlinebookshop)

A data dictionary is an ordered list of items which helps in designing software. This is a major component in developing a structured model analysis of the system. A data dictionary in software analysis holds records of objects in the database. It shows data ownership and relationship with other data. It helps in finding data from a description.A data dictionary is a centralized repository of metadata. Metadata is data about data. Some features of a data dictionary are:

- The names of fields contained in all of organisation's databases.
- The table's each field contains.
- The databases each field exists in.
- The data types of all field's in the organisation's databases.
- The size of all field's in the organisation's databases.
- An explaination of what each field means.
- The source of the data for each field.
- The relationship between field's in the organisation's databases.
- Default values that exists in all of the organisation's databases.
- Who has access to each field.

A data dictionary may be used to validate the operator as a user and control attributes such as ownerships and provide cardinality relationships

1. system_admin

Field name	Data type	Field length	Constraints	Description	Reference
admin_id	varchar	30	primary key	sets an identity for admin	none,unique
admin name	varchar	45	not null	sets admin name in database->by admin	none,unique
userid	Int	45	foreign key	userid generated after registrartion with email, password and email verification of user->by admin	users table
acc_id	Int	45	foreign key	identify payment details of each user making payment, ->by admin	payment_details table
nbid	Int	45	foreign key	Identify new books	new_books table
old_bookid	Int	45	foreign key	Identify old books	old_books table

2. users

Field name	data type	field length	Constraints	Description	Reference
Userid	int	20	primary key	identify each user of system by admin	Unique
user_fname	varchar	45	not null	first name entered by user during registration	Unique
user_lname	varchar	45		last name entered by user	Unique
user_email	varchar	45	not null	email entered during registration by user	Unique
user_password	varchar	45	not null	password entered during registration by user	Unique
contact_no	varchar	45	not null	address entered by user during registration	Unique
Address	varchar	45	not null	phone no. entered by user during registration	Unique
user_feedback	longtext			given by user to share opinion and suggestions	unique
acc_id	int	20	foreign key	identify the account details of user in payment portal by admin	payment details ,system_admin tables
profile_pic	mediumblob			Given by user	unique

3.payment_details

Field name	Data type	Size	Constraints	Description	Reference
acc_id	int	**30**	primary key	Identifies account held by user	users
payment_mode	varchar	**45**	not null	Mode of payment made	unique
merchant_bank	varchar	**45**		Bank where the user account resides	unique
pin_cvv	int	**45**	not null	Pin is unique no	unique
amount_paid	int	**45**	not null	Amount paid on transaction	
amount_received	int	**45**	not null	Amount received on transaction	
wallet	varchar	**45**	not null	Amount held by each user	
userid	int	**30**	foreign key	Unique no. of user to identify	

3. new_books

Field name	Data type	Size	Constraints	Description	Reference
nbid	int	**30**	primary key	Uniquely identifies each new book	unique
book_name	varchar	**45**	not null	Name of book	Book_sale,book_purchase

Field name	Data type	Size	Constraints	Description	Reference
author_name	varchar	45		Name of author	Book_sale, book_purchas
subject	varchar	45	not null	which domain does it refer to	Book_sle, book_purchase
hardcover_copies	varchar	45	not null	Type of binding of the book	unique
online_versions	varchar	45	not null	Soft copy of the book	unique
cost	varchar	45	not null	Cost of the book	Payment_details
userid	int	30	foreign key	Identifies user	users
book_cover	longblob			The picture and design of cover	unique

4. old_books

Field name	Data type	Size	Constraints	Description	Reference
old_bookid	int	30	primary key	Uniquely identifies old books	Book_sale, book_purchase
old_book_name	varchar	45	not null	Name of book	Book_sale, book_purchase
authorname	varchar	45		Name of writer/author	Book_sale, book_purchase
subject	varchar	45	not null	Domain to which the topics belong	Book_sale, book_purchase

hardcover	varchar	**45**	not null	Denotes the cover type	
online_version	vachar	**45**	not null	Denotes soft copy	
other_formats				Other fornats of books	
cost	varchar	**45**	not null	Price to be paid	
donorid	varchar			Book obtained by a prior reader	
userid	int	**30**	foreign key	Identifies each user	
book_cover	longtext				

5. reading_track :weak entity

Field name	Data type	Size	Constraints	Description	Reference
userid	int	**30**	primary key	Identifies users	
nbid	int	**45**	not null		
old_bookid	int	**45**			
date	date	**45**	not null		
read_count_ne w	int	**45**	not null		
read_count_old	int	**45**	not null		

6. booik_sale: weah entity

Field name	Data type	Size	Constraints	Description	Reference
ISBN	int	30	primary key		
book_name	varchar	45	not null		
author_name	varchar	45			
sellerid	varchar	45	not null		
buyerid	varchar	45	not null		
Cost	int	45	not null		

7. Book_purchase

Field name	Data type	Size	Constraints	Description	Reference
ISBN	int	30	primary key		
book_name	varchar	45	not null		
author_name	number	45			
selling_price	number	45	not null		
date_purchase	number	45	not null		

COMPLETE STUCTURE : Database is generated based on this structure that isbased on the ERD drawn previously.

> ➤ The database of the project has been developed on <mark>mysql workbench8.0 CE</mark> version(21.4.2).Database name: orcl
> ➤ The DDl, DML commands have been run on the <mark>Query mode</mark>
> ➤ The driver used for connecting database to the Eclipse IDE is <mark>oracle8.jar</mark>(and theother jar files in the driver), on the build path of the project OnlineBookShop Dynamic webproject

Database Schema

1. **Table:system_admin primary key : (admin_id)**

Field name	Data type	Size	Constraints
admin_id	varchar	30	primary key
admin_name	varchar	50	not null
Userid	int	20	foreign key
acc_id	int	20	foreign key
Iqexamcode	int	20	foreign key
Ctestcode	int	20	foreign key

2. Table:users
primary key:userid

Field name	Data type	Size	Constraints
userid	int	**30**	primary key
user_fname	varchar	**45**	not null
user_laname	varchar	**45**	
user_email	varchar	**45**	not null
user_password	varchar	**45**	not null
contact_no	int	**45**	not null
address	varchar	**45**	not null
acc_no	int	**30**	foreign key
feedback	longtext		
profile_pic	mediumblob		

3. Table : payment_details

Primarykey : acc_id

Field name	Data type	Size	Constraints
acc_id	int	**30**	primary key
payment_mode	varchar	**45**	not null
merchant_bank	varchar	**45**	
pin_cvv	int	**45**	not null
amount_paid	int	**45**	not null
amount_received	int	**45**	not null
Wallet	varchar	**45**	not null
Userid	int	**30**	foreign key
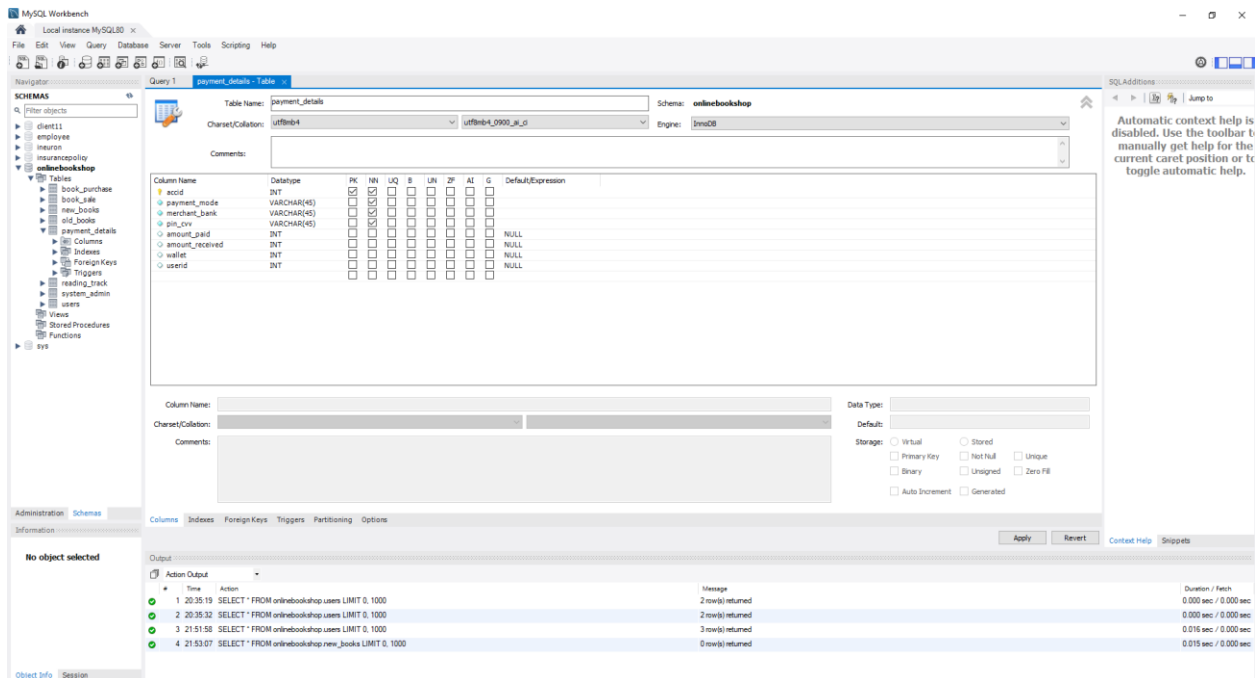
4. Table:new_books
Primary key:nbid

Field name	Data type	Size	Constraints
nbid	int	30	primary key
book_name	varchar	45	not null
author_name	int	45	
subject	varchar	45	not null
hardcover_copies	varchar	45	not null
online_versions	varchar	45	not null
cost	varchar	45	not null
userid	int	30	foreign key
book_cover	longblob		

Table : old_books

Primary key: old_bookid

Field name	Data type	Size	Constraints
old_bookid	int	30	primary key
old_book_name	varchar	45	not null
authorname	varchar	45	
subject	varchar	45	not null
hardcover	varchar	45	not null
online_version	vachar	45	not null
other_formats			
Cost	varchar	45	not null
donorid	varchar		
userid	int	30	foreign key
book_cover	longtext		
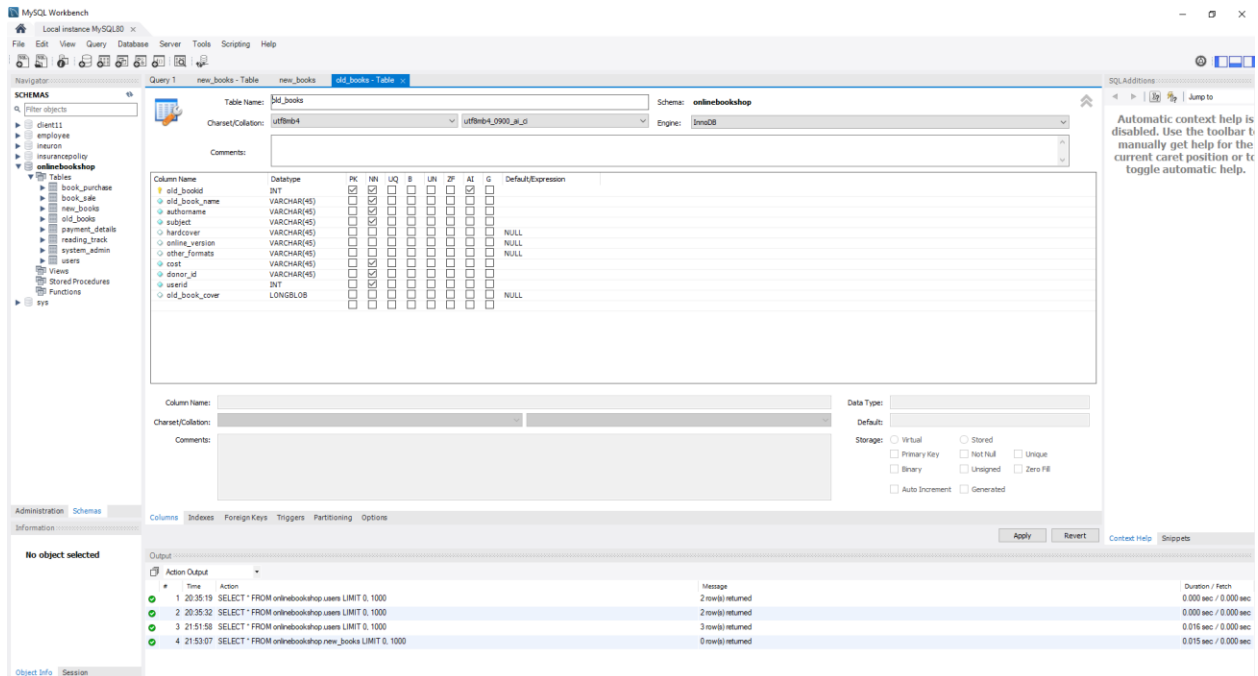
Table : reading track

Primary key: none

Field name	Data type	Size	Constraints
Userid	int	**30**	primary key
Nbid	int	**45**	not null
old_bookid	int	**45**	
Date	date	**45**	not null
read_count_new	int	**45**	not null
read_count_old	int	**45**	not null
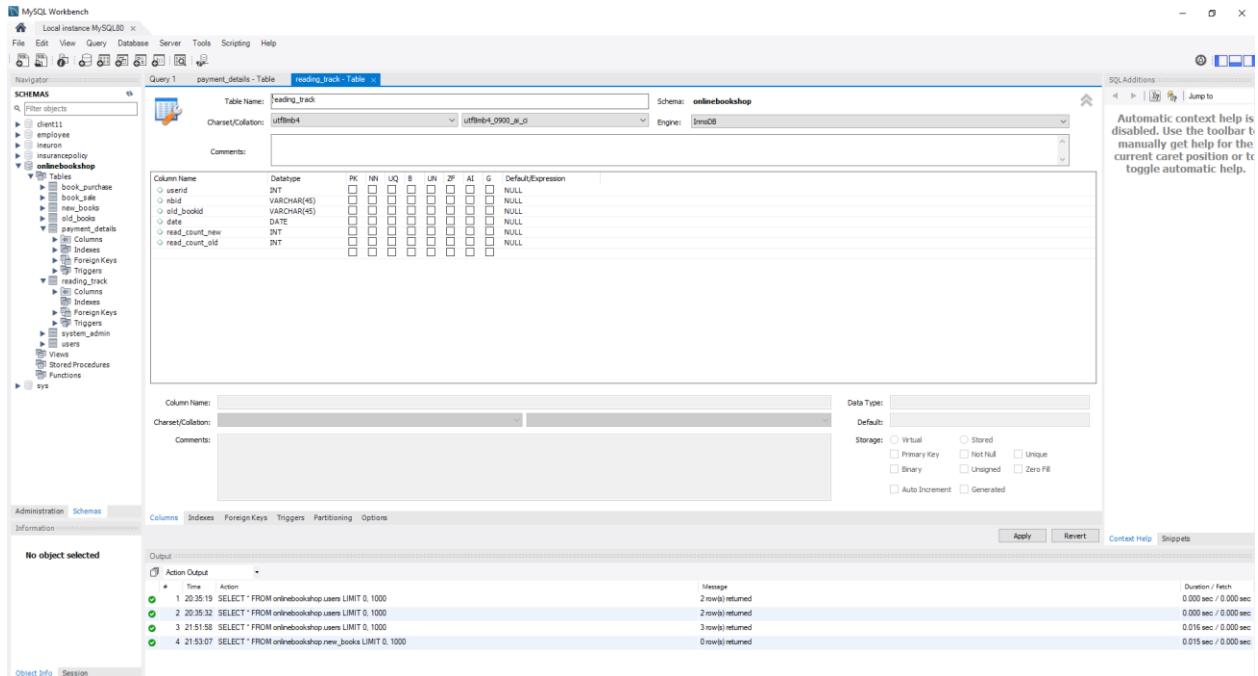
Table : book_sale

No primary key

Field name	Data type	Size	Constraints
ISBN	int	30	primary key
book_name	varchar	45	not null
author_name	varchar	45	
sellerid	varchar	45	not null
buyerid	varchar	45	not null
Cost	int	45	not null

Table : book_purchase

No primary key

Field name	Data type	Size	Constraints
ISBN	int	30	primary key
book_name	varchar	45	not null
author_name	number	45	
selling_price	number	45	not null
date_purchase	number	45	not null

WORKFLOW MODELS: