

Entity Type

Entity Name	Description	Aliases	Occurrence
Item	Basic information about the items cost, stock on hand and descriptions	ItemID	There are many items that can be added to an order
Book	In addition to it super class item information, a book will take an title, date published, secondary title and description	ItemId	Is a sub entity of item for every Item it will a book at the moment this will change if we sell other book related items.
Author	Basic Information about the Author	authorId	A book may have many Authors and an Author may have many books
Category	Basic Information about the Category	categoryId	A book may have many Categories and a category may have many books
WebSiteUser	Basic information about user which identifies them and also if they are a employee or not	userId	Is a sub entity of User for every User not everyone will be a customer.
Customer	In addition to it super class user information, a customer will take a phone number and has addresses	userId	Not all users are Customers
postCode	Identify the combination of suburb and state to get a post code	Suburb,State	An address my only have one postcode
Address	Information used for both billing and shipping	addressId	A customer may have multiple addresses
Orders	Basic information about the order date and cost	orderId	A customer may have multiple orders.
PostageOption	Methods of delivery to customer and the costs and time	postageOptionID	Every Order has Postage option be that delivery or pickup
Payment	Payment notes when the order was payed for and how much they got payed.	paymentId	Every order has a single payment

Relationship Type

Entity Name	Multiplicity	Relationship	Multiplicity	Entity Name
Book		Inherits		Item
Book	1...*	Has	1...*	Author
Book	0...*	Belongs	1...*	Categories
Customer		Inherits		WebSiteUser
Orders	0...*	Has	1...*	Items
Customer	1...*	Has	0...*	Orders
Payment	1...1	Belongs To	1...1	Orders
PostageOptions	1...1	Belongs To	1...*	Orders
Address	1...*	Belongs To	1...*	Customers
Address	1...*	Has	1...1	Post Code

Relationship Type-1

Entity Name	Attitudes	Descriptions	Data type & Length	Nulls	Multi - valued	Derived	Default
Item	itemID	Uniquely Identifies a Item	Variable Character 30	No	No	No	N/A
	price	Price of the item	DECIMAL(7,2)	No	No	No	\$0.00
	stockQuantity	The amount of items currently in stock	INTEGER	No	No	No	0
	longDescription	A long detailed description of an item	Variable Character 200	Yes	No	No	N/A
	shortDescription	A short description of item	Variable Character 100	Yes	No	No	N/A
	imagePath	Holds the path which the Image is stored for the item	Variable Character 100	Yes	No	No	N/A
	thumbnailPath	Holds the path which the thumbnail of Image is stored for the item	Variable Character 100	Yes	No	No	N/A
Book	ISBN	International Standard Book Number	Variable Character 30	No	No	No	N/A
	title	Title of the book	Char 45	No	No	No	N/A
	secondaryTitle	Secondary title of the book	Char 45	Yes	No	No	N/A
	datePublished	Date of publication of book	Date	Yes	No	No	N/A
	isBestSeller	Shows if book is a best seller or not	Boolean	Yes	No	No	FALSE
	publisher	publisher that released the book	Variable Character 100	No	No	No	N/A
Author	authorID	Uniquely Identifies a Author	Variable Character 30	No	No	No	N/A
	firstName	Given name of the Author	Char 30	No	No	No	N/A
	lastName	Family name of the Author	Char 30	Yes	No	No	N/A
	description	Description of the Author	Variable Character 100	Yes	No	No	N/A
Category	categoryID	Uniquely Identifies a Category	Variable Character 30	No	No	No	N/A
	name	name of the Category	Char 30	No	No	No	N/A
	description	Description of the Category	Variable Character 100	Yes	No	No	N/A
WebSiteUser	userID	Uniquely Identifies a User	Variable Character 30	No	No	No	N/A
	email	Unique email for the User used to login	Variable Character 45	No	No	No	N/A

Entity Name	Attitudes	Descriptions	Data type & Length	Nulls	Multi - valued	Derived	Default
	password	Password used along with email to login	Variable Character 45	No	No	No	N/A
	firstName	Given name of the User	Char 30	No	No	No	N/A
	lastName	Family name of the User	Char 30	Yes	No	No	N/A
	isAdmin	To check if user is an admin	Boolean	Yes	No	No	N/A
	isActive	To check if user account is active	Boolean	Yes	No	No	N/A
Customer	phoneNumber	Phone number for contact customer	Variable Character 15	Yes	No	No	N/A
PostCode	city	City associated with an address	CHAR 15	No	No	No	N/A
	addressState	State associated with an address	CHAR 3	No	No	No	N/A
	postCode	Post code that is associated with suburb and state	INTEGER	Yes	No	No	N/A
Address	addressID	Uniquely Identifies an Address	Variable Character 30	No	No	No	N/A
	streetNumber	Street number of address	Variable Character 6	No	No	No	N/A
	streetName	Street Name of address	Variable Character 15	No	No	No	N/A
PostageOption	postageOptionID	Uniquely Identifies a Postal Option	Variable Character 30	No	No	No	N/A
	postageOptionName	Name of the Total Option	Variable Character 30	No	No	No	N/A
	amountOfDaysToDeliver	AmountOfDaysToDeliver	INTEGER	No	No	No	N/A
	shippingCost	Cost of shipping items	DECIMAL(7,2)	Yes	No	No	\$0.00
Orders	orderID	Uniquely Identifies an Order	Variable Character 30	No	No	No	N/A
	orderStatus	Status of order	Variable Character 30	Yes	No	No	N/A
	GST	Good sales Tax	INTEGER	Yes	No	No	10
	subTotal	Subtotal of all items ordered	DECIMAL(7,2)	Yes	No	Yes	\$0.00
	dateOrderd	The date the order placed	Date	Yes	No	Yes	N/A
payment	paymentID	Uniquely Identifies a Payment	Variable Character 30	No	No	No	N/A
	datePayed	The date the order was payed for	Date	Yes	No	No	N/A
	total	Total amount payed on the order	DECIMAL(7,2)	Yes	No	Yes	\$0.00