

Appendix A: Data Dictionary

The database required for the online store is provided in a file – “eCAD Assignment - Database Setup Script.sql”. The tables created in this database are listed below. **Do not modify the table definitions but you may add more sample data and tables if necessary.**

Note: Primary keys are underlined and foreign keys are in italic font.

(1) **Shopper** Table - contains the particulars of registered shoppers (members).

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
<u>ShopperId</u>	Unique identifier for a shopper	int identity (1,1)	Primary key		No
Name	Shopper's name	varchar (50)			No
BirthDate	Date of birth of shopper	date			Yes
Address	Shopper's residential address, to be used as billing address	varchar (150)			Yes
Country	Country of residence	varchar (50)			Yes
Phone	Shopper's telephone number	varchar (20)			Yes
Email	Shopper's eMail address, also used for as login ID	varchar (50)			No
Password	Log in password	varchar (20)			No
PwdQuestion	Question to be challenged before revealing the password.	varchar (100)			Yes
PwdAnswer	Answer for question.	varchar (50)			Yes
ActiveStatus	Status of member 1 – active 0 – non-active	int		1	No
DateEntered	Date and time of creating the shopper record	timestamp		Current_ Timestamp	Yes

(2) **ImportantDate** Table - contains important dates as defined by each registered member.

Attribute	Description	Data type and length	Constraint	Default Value	Accept Null?
<u>DateEntryID</u>	Unique identifier for each date entry record	int identity (1,1)	Primary key		No
<i>ShopperID</i>	ID of the member who posted the feedback	int	Foreign key		No
ImportantDateDay	The day portion of an important date defined by the shopper	int			No
ImportantDateMth	The month portion of an important date defined by the shopper	int	1 to 12		No
DateDescription	Description of the important date	varchar (255)			Yes

NB: ShopperID is a foreign key that references Shopper table.

(3) **Category Table** - contains the details of all categories of products.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
CategoryID	Unique identifier of each category	int identity (1,1)	Primary key		No
CatName	Category Name	varchar (255)			No
CatDesc	Category Description	longtext			Yes
CatImage	Filename of category image	varchar (255)			Yes

(4) **Product Table** - contains the common information of all products in the store.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
ProductID	Unique identifier for a product	int identity (1,1)	Primary key		No
ProductTitle	Product title	varchar (255)			Yes
ProductDesc	Description of the product	longtext			Yes
ProductImage	Filename of product image	varchar (255)			Yes
Price	Normal price	double		0.0	No
Quantity	Quantity in stock	int		0	No
Offered	Offer code of product. 0 – items is not on offer 1 – items is on offer	int		0	No
OfferedPrice	Discounted price	double			Yes
OfferStartDate	Start date of the offer period	date			Yes
OfferEndDate	End date of offer period	date			Yes

(5) **CatProduct Table** - indicates products for each category. A product may be found in more than one category.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
CategoryID	Category ID	int	Part of Primary key, Foreign key		No
ProductID	Product ID	int	Part of Primary key, Foreign key		No

NB: *CategoryID* is a foreign key that references *Category* table.

ProductID is a foreign key that references *Product* table.

(6) **Specification Table** - stores specification names that could be used by each product

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
SpecID	Unique identifier of a specification.	int identity (1,1)	Primary key		No
SpecName	Specification's Name	varchar (64)			No

(7) **ProductSpec Table** - contains the specification's values for each product.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
<u>ProductID</u>	Product ID	int	Part of Primary key, Foreign key		No
<u>SpecID</u>	Specification ID	int	Part of Primary key, Foreign key		No
SpecVal	Specification's Value	varchar (255)			No
Priority	Priority in the display order of specifications, smaller number first.	int		0	Yes

NB: *ProductID* is a foreign key that references *Product* table
SpecID is a foreign key that references *Specification* table.

(9) **ShopCart Table** - stores the information of shopping carts assigned to each shopper.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
<u>ShopCartID</u>	Unique identifier of a shopping cart	int identity (1,1)	Primary key		No
<i>ShopperID</i>	Shopper ID	int	Foreign key		No
OrderPlaced	A flag indicates whether items in the shopping cart have been bought. 0 – items not ordered 1 – items ordered	int		0	No
Quantity	Number of items purchased. (exclude free items)	int			Yes
Subtotal	Sub-total of the purchase (before shipping charge and tax).	double			Yes
Tax	Goods and Service Tax (GST) of sub-total.	double			Yes
ShipCharge	Shipping charge	double			Yes
Discount	Discounted amount from sub-total.	double		0.0	Yes
Total	Total amount payable. (Sub-total + Tax + Shipping charge – Discount)	double			Yes
DateCreated	Date and time of creating the shopping cart	timestamp		Current_ Timestamp	Yes

NB: *ShopperID* is a foreign key that references *Shopper* table.

(10) **ShopCartItem** Table - contains items in each shopping cart.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
ShopCartId	Shopcart ID	int	Part of Primary key, Foreign key		No
ProductId	Product ID	int	Part of Primary key, Foreign key		No
Name	Item's name	varchar (255)			No
Price	Item's unit price	double			No
Quantity	Quantity of purchase.	int			No

NB: *ShopCartID* is a foreign key that references *ShopCart* table
ProductID is a foreign key that references *Product* table.

(11) **OrderData** Table - contains information of orders made by shoppers.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
OrderId	Unique identifier for each order	int identity (1,1)	Primary key		No
ShopCartId	Shopcart ID	int	Foreign key		No
ShipName	Name of the recipient of goods.	varchar (50)			No
ShipAddress	Delivery address.	varchar (150)			No
ShipCountry	Country of delivery to.	varchar (50)			No
ShipPhone	Recipient's telephone number	varchar (20)			Yes
ShipEMail	Recipient's eMail address	varchar (50)			Yes
BillName	Name of the payer.	varchar (50)			Yes
BillAddress	Address of the payer.	varchar (150)			Yes
BillCountry	Payer's country of residence.	varchar (50)			Yes
BillPhone	Payer's telephone number.	varchar (20)			Yes
BillEMail	Payer's eMail address.	varchar (50)			Yes
DeliveryDate	Date for delivery of goods	date			Yes
DeliveryTime	Preferable time range for delivery of goods, valid values: <ul style="list-style-type: none"> ▪ 9 am – 12 noon, ▪ 12 noon – 3 pm, ▪ 3 pm – 6 pm 	varchar (50)			Yes
DeliveryMode	Mode of Delivery, valid values: <ul style="list-style-type: none"> ▪ Normal ▪ Express 	varchar (50)			Yes
Message	Message to receiver	varchar (255)			Yes
OrderStatus	Order status: <ul style="list-style-type: none"> ▪ 0 - Cancelled ▪ 1 - Order received ▪ 2 - Order ready for shipment ▪ 3 - Order delivered 	int		1	No
DateOrdered	Date and time of creating the order	timestamp		Current_ Timestamp	Yes

NB: *ShopCartID* is a foreign key that references *ShopCart* table.

(12) **GST Table** - contains the past, current and future Good and Services Tax (GST) rate over.

Attribute	Description	Data Type and Length	Constraint	Default Value	Accept Null?
<u>GstId</u>	Unique identifier for each GST record	int identity (1,1)	Primary key		No
EffectiveDate	Effective date of the GST rate.	date			No
TaxRate	GST rate	double			No

Note:

The database design provided is for a generic B2C eCommerce website, depends on your functional requirements and design, you **need not** use all columns provided in each table.

To get the current date and time in a SQL statement, use the function **now()**.

e.g., `SELECT (YEAR(now()) - YEAR(BirthDate)) AS Age FROM Shopper`
`SELECT DATEDIFF(now(), OfferStartDate) AS DayPassed FROM Product`

To get the current date in PHP script, use the **DateTime** class.

e.g., `$todaysDate = new DateTime('now');`
`$Date = $todaysDate->format('Y-m-d');`

References:

1. MySQL documentation: <http://dev.mysql.com/doc/index-topic.html>
2. PHP documentation: <http://php.net/docs.php>