Week 3 | Revised Database Design
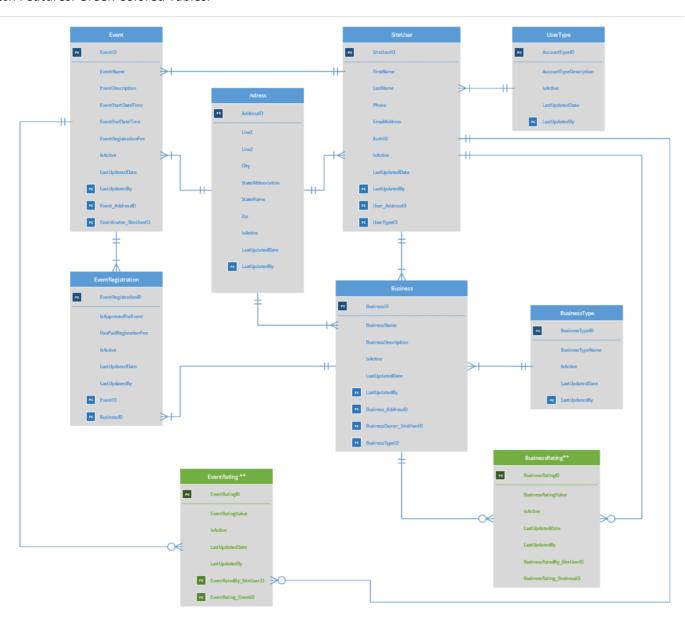
I.   Technology

To support the Vendor Blendor website I am choosing a relational data store. The reason I made this choice is due to the way I would like the Vendor Blendor website to function is very transaction based. The goal is to allow features such as one-click registration of events and the ability of customers to find an event to shop at that has the types of business they are looking for. In future enhancements I may also want to add some reporting features giving event coordinators the ability to analyze success of past events. There are a lot of possibilities for feature enhancements that require complex queries making a relational database the best option.

Though I do expect to grow the website, there will be limited users to the niche that this website fills. I plan to scale out the features, but I will not be quickly overloaded with system users. Therefore, a single server is enough for the MVP and enhancement phases for at least the next 5 years.

Finally, I will be using Microsoft SQL Server to create the database and host our data. This is an enterprise level platform allowing for many transactions per second and is a dependable, time tested technology. In addition, there are many cloud platforms in which I can deploy the production database to.

II. Data Model

MVP Features: Blue Colored Tables.
Stretch Features: Green Colored Tables.

Event
- PK EventID
- EventName
- EventDescription
- EventStartDateTime
- EventEndDateTime
- EventRegistrationFee
- IsActive
- LastUpdatedDate
- PK LastUpdatedBy
- PK Event_AddressID
- PK Coordinator_SiteUserID

Adress
- PK AddressID
- Line1
- Line2
- City
- StateAbbreviation
- StateName
- Zip
- IsActive
- LastUpdatedDate
- PK LastUpdatedBy

SiteUser
- PK SiteUserID
- FirstName
- LastName
- Phone
- EmailAddress
- AuthID
- IsActive
- LastUpdatedDate
- PK LastUpdatedBy
- PK User_AddressID
- PK UserTypeID

UserType
- PK AccountTypeID
- AccountTypeDescription
- IsActive
- LastUpdatedDate
- PK LastUpdatedBy

EventRegistration
- PK EventRegistrationID
- IsApprovedForEvent
- HasPaidRegistrationFee
- IsActive
- LastUpdatedDate
- LastUpdatedBy
- PK EventID
- PK BusinessID

Business
- PK BusinessID
- BusinessName
- BusinessDescription
- IsActive
- LastUpdatedDate
- PK LastUpdatedBy
- PK Business_AddressID
- PK BusinessOwner_SiteUserID
- PK BusinessTypeID

BusinessType
- PK BusinessTypeID
- BusinessTypeName
- IsActive
- LastUpdatedDate
- PK LastUpdatedBy

EventRating **
- PK EventRatingID
- EventRatingValue
- IsActive
- LastUpdatedDate
- LastUpdatedBy
- PK EventRatedBy_SiteUserID
- PK EventRating_EventID

BusinessRating**
- PK BusinessRatingID
- BusinessRatingValue
- IsActive
- LastUpdatedDate
- LastUpdatedBy
- BusinessRatedBy_SiteUserID
- BusinessRating_BusinessID

III. Data Dictionary

Event (MVP)				
Purpose: Holds the event information needed to coordinate and display event details to the website users.				
FieldName	**Key Type**	**Data Type**	**Purpose / Role**
EventID	Primary Key	Int	Primary key for the table
EventName		Varchar(100)	Display name for the event. This will be linkable text in the search results screen.
EventDescription		Varchar(max)	Extended description of the event to allow vendors to decide if they want to register and customers to decide if they want to attend. i.e. if an event is a fundraiser the coordinator might list that here and who it benefits.
EventStartDateTime		Datetime	The start date and time of the event.
EventEndDateTime		Datetime	The end date and time of the event.
EventRegistrationFee		Decimal(10,2)	The cost for vendors to register for this event
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	Foreign Key	Int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.
Event_AddressID	Foreign Key	Int	The addressID for this event. This address will be used for future enhancements to support maps on the website
Coordinator_SiteUserID	Foreign Key	Int	The SiteUserID of the person who will coordinate this event
Address (MVP)				

Purpose: site-wide abstraction for all addresses. This will allow for the "home address same as business address" functionality without the need to duplicate this data.			
FieldName	**Key Type**	**Data Type**	**Purpose / Role**
AddressID	Primary Key	Int	Primary key for the table
Line1		Varchar(100)	Main address info
Line2		Varchar(100)	Secondary, optional address info
City		Varchar(100)	city info
StateAbbreviation		varchar(10)	2-character state code
StateName		Varchar(100)	The full name of the state
PostalCode		Varchar(100)	Postal code – allowing for alpha numeric characters for Canadian addresses
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	Int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.
SiteUser (MVP)			
Purpose: Track and store all data needed to register a user. For the MVP of the website this will include Business Owners and Event Coordinators. Customers will be anonymous users of the initial rollout.			
FieldName	**Key Type**	**Data Type**	**Purpose / Role**
SiteUserID	Primary Key	Int	Primary key for the table
FirstName		Varchar(100)	First name of the user registering their account
LastName		Varchar(100)	Last name of the user registering their account
Phone		Varchar(20)	Main contact phone number of the user registering their account
EmailAddress		Varchar(200)	Email address of the user registering their account. This will be used for communication purposes. For example, if a vendor registers for an event the

			coordinator will receive an email notification. When the coordinator accepts or declines the registration the vendor will receive a notification of the decision.
AuthID		Varchar(200)	This is the placeholder for the Google authorization ID if needed. During implementation of the Google Authentication Feature if it is determined that this data is not needed this field will be removed.
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.
User_AddressID	ForeignKey	Int	The AddressID from the Address table.
UserTypeID	ForeignKey	Int	The type of user that is registering for filtering and reporting purposes. Also allows for role-based security of website features.

UserType (MVP)			
Purpose: An option item table that will contain the options presented to the user when they register for the website. For the MVP that will include Business Owners and Event Coordinators. Stretch Feature: This table allows for scalability when I expand to include customer registrations or other user types in the future.			
FieldName	**Key Type**	**Data Type**	**Purpose / Role**
AccountTypeID	Primary Key	Int	Primary key for the table
AccountTypeDescription		Varchar(100)	The name that will display in the drop down list of values.

FieldName	Key Type	Data Type	Purpose / Role
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	Int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.

EventRegistration (MVP)			
Purpose: Tracks the Businesses who registers for an event. The event coordinator has the option to accept or decline the request and tracks the registration fee payments.			
FieldName	**Key Type**	**Data Type**	**Purpose / Role**
EventRegistrationID	Primary Key	Int	Primary key for the table
IsApprovedForEvent		Bit	Event coordinators will have the option to accept or decline vendors who registers for events. This field will track that data.
HasPaidRegistrationFee		Bit	Event coordinators may opt for their event to charge a fee for vendors to set up. This field will track if the vendor has paid this fee.
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	Int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of

			10 the user calling accidentally removed the information.
EventID	ForeignKey	Int	Maps this registration form to the event that the vendor is registering for.
BusinessID	ForeignKey	Int	Maps this registration form to the vendor who is registering.

Business (MVP)			
Purpose: Tracks the business information needed to display business listings. Also, holds contact information to make event registration a "one-click" action in the website.			
FieldName	**Key Type**	**Data Type**	**Purpose / Role**
BusinessID	Primary Key	Int	Primary key for the table
BusinessName		Varchar(200)	The linkable text for this business for searches and lists in the website.
BusinessDescription		Varchar(max)	The full description of the business that will display on the business listing screen.
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	Int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.
Business_AddressID	ForeignKey	Int	Links back to the address table to avoid duplication of address data.
BusinessOwner_SiteUserID	ForeignKey	Int	The SiteUserID of the main contact for this business.
BusinessTypeID	ForeignKey	Int	The BusinessTypeID for this business. The MVP will record the main type of business. Future enhancements could expand this out to include sub-types.

BusinessType (MVP)

Purpose: An option item table that holds the values that will be presented to the vendors when they register for a business listing.

FieldName	Key Type	Data Type	Purpose / Role
BusinessTypeID	Primary Key	Int	Primary key for the table
BusinessTypeName		Varchar(100)	The name that will display in the drop down list of values.
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	Int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.

EventRating (Stretch)

Purpose: Holds the event ratings that users will have the ability to do in a future enhancement. This will give the event coordinator feedback on successful / unsuccessful events.

FieldName	Key Type	Data Type	Purpose / Role
EventRatingID	Primary Key	Int	Primary key for the table
EventRatingValue		Int	A thumbs up will give a value of +1. A thumbs down will give a value of -1. A total rating can be determined by adding the values.
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	Int	The SiteUserID of the person who made the last edit. This is

FieldName	Key Type	Data Type	Purpose / Role
			for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.
EventRatedBy_SiteUserID	ForeignKey	Int	This will NOT be visible on the web portal but is tracked for admin / research purposes.
EventRating_EventID	ForeignKey	Int	The Event ID of the event that has been rated.

BusinessRating (Stretch)			
Purpose: Holds the business ratings that users will have the ability to do in a future enhancement. This will give the business owner feedback on successful / unsuccessful their performance has been.			
FieldName	**Key Type**	**Data Type**	**Purpose / Role**
BusinessRatingID	Primary Key	Int	Primary key for the table
BusinessRatingValue		Int	A thumbs up will give a value of +1. A thumbs down will give a value of -1. A total rating can be determined by adding the values.
IsActive		Bit	Allows for soft-delete of data. If this is false, the data will not appear on the screen.
LastUpdatedDate		Datetime	The last time this row was updated. Potentially, an enhancement can include a service that will clean up data that has not been modified after x number of years.
LastUpdatedBy	ForeignKey	Int	The SiteUserID of the person who made the last edit. This is for tracking and troubleshooting purposes. For example, user submits an incident saying their data disappeared. 9 times out of 10 the user calling accidentally removed the information.
BusinessRatedBy_SiteUserID	ForeignKey	Int	This will NOT be visible on the web portal but is tracked for admin / research purposes.
BusinessRating_BusinessID	ForeignKey	Int	The Business ID of the business that has been rated.