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| Thomson Reuters |
| Create Firm |
| Firm Support – Development Documentation |

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# Task ID: 11487

This will detail the efforts to resolve the Task Item for the following:

### Title: Identify and if required, modify and/or Create database tables to support Firm Application

#### The goal for this task is to accomplish the following:

Review the following objects to determine which tables must be accessed and/or modified

a.       Firms

b.      Divisions

c.       Admin users

d.      Users

e.      Purchases

f.        Enrollment

### Coding:

Tables were created in MS SQL, with primary and foreign keys created. File creation scripts include creation of constraints and indexes.

The original CPAReview database CPExam3 does have some of the tables required, with the following tables being suitable for full usage in this application without column modifications:

* Users
* UserType
* UserLogins
* States
* Zip
* Country
* UserLogins
* Help\_Roles

The Following Tables have been added:

* Firm
* FirmDivision
* FirmUsers
* FirmSeatPurchase
* FirmSeats
* FirmUserSeat
* FirmSeatType
* FirmRole

## Current Tables

|  |  |
| --- | --- |
| These tables were initially added to a prototype local database to allow for indexing, primary and foreign key assignments, and then implementation of the Entity Model to allow for code class generation.  You will see each of the tables, their primary and foreign key assignments, the scripts supporting each – then finally the Entity Relationship diagram modeling all of the tables.  Some of the tables have counterparts in the actual CPAExam3 database. The intention for database table creation was to minimize or eliminate the need to change any of the current tables.  The scripts below do not have import data or drop table scripting for existing data and/or existing tables. The architecture was specifically intended to create a separation of concerns in terms of the database footprint for the Firm project.  The only direct connection to the current database structure in CPAExam/CPAReview should be the User, User Login, and for seat assignments – the Registration table. |  |

The following table views and create scripts are arranged in the order they should be created.

### Country Table View

|  |  |
| --- | --- |
|  | The country table is used by other pages and data tables in the CPAExam/CPAReview table.  It has not been created specifically for this application, but does need to be present for some of the data table foreign key assignments and table lookups to work. |

#### Country Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[Country] Script Date: 3/25/2015 1:03:22 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[Country](  [CountryID] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [CountryName] [varchar](255) NOT NULL,  CONSTRAINT [PK\_Country] PRIMARY KEY CLUSTERED  (  [CountryID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, FILLFACTOR = 70) ON [PRIMARY]  ) ON [PRIMARY]  GO  SET ANSI\_PADDING OFF  GO |

### Firm table view

|  |  |
| --- | --- |
| The **FirmParent** table is the central focus for this application. It is the parent table for all other tables referenced in this application except for the tables that exist independently outside of this application. It was not named Firm table because there is a conflicting table with this name use with an Entity relationship called Associations.  The FirmRole table will control how much access and views the user will get in this application.  Generally, individual users will not be able to view this application. Once they have been assigned a course for study, they will receive an email similar to the emails sent to regular CPAExam/CPAReview students regarding classes – including class profile and schedule  Firms can only be created by a Bisk Admin (Or?). In addition, they can only be disabled by a Bisk Admin (Or/). The Bisk Admin would likely create the Firm Admin.  The Firm admin would be responsible for all subsequent operations on and for the firm except for purchases. This functionality will be un-viewable by non-Bisk personnel. |  |

#### Firm Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmParent] Script Date: 3/30/2015 10:39:26 AM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[FirmParent](  [FirmParentId] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [Firm\_Name] [varchar](max) NOT NULL,  [Address] [varchar](50) NOT NULL,  [Address2] [varchar](50) NULL,  [City] [varchar](50) NOT NULL,  [State] [varchar](50) NOT NULL,  [Zip] [varchar](15) NOT NULL,  [CountryID] [int] NOT NULL,  [ContactName] [varchar](max) NULL,  [ContactEmail] [varchar](max) NULL,  [ContactPhone] [varchar](50) NULL,  [DateCreated] [datetime] NULL,  [LastModified] [datetime] NULL,  [ModifiedBy] [int] NULL,  [IsDisabled] [bit] NULL,  CONSTRAINT [PK\_FirmParent] PRIMARY KEY CLUSTERED  (  [FirmParentId] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]  GO  SET ANSI\_PADDING OFF  GO  ALTER TABLE [dbo].[FirmParent] WITH CHECK ADD CONSTRAINT [FK\_Firm\_Country] FOREIGN KEY([CountryID])  REFERENCES [dbo].[Country] ([CountryID])  GO  ALTER TABLE [dbo].[FirmParent] CHECK CONSTRAINT [FK\_Firm\_Country]  GO |

### FirmRole Table View

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | 1 | FirmAdmin | Primary administrator for the firm | | 2 | DivAdmin | Division administrator | | 3 | ReportAdmin | Primary Firm readonly administrator | | 4 | DivReportAdmin | Division readonly administrator | | 5 | FirmUser | Firm designated user | |  |

#### FirmRole Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmRole] Script Date: 3/24/2015 12:56:38 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[FirmRole](  [FirmRoleID] [int] IDENTITY(1,1) NOT NULL,  [Role] [varchar](50) NOT NULL,  [Description] [varchar](max) NULL,  CONSTRAINT [PK\_FirmRole] PRIMARY KEY CLUSTERED  (  [FirmRoleID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]  GO  SET ANSI\_PADDING ON  GO |

### FirmDivision table view

|  |  |
| --- | --- |
|  | * A firm can have many divisions. * Each division can have one or more DivAdmin personnel. * Each division can have one or more DivReportAdmin personnel. * Divisions can be disabled |

#### FirmDivision Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmDivision] Script Date: 3/30/2015 10:47:11 AM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[FirmDivision](  [FirmDivisionId] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [FirmParentID] [int] NOT NULL,  [DivisionName] [varchar](max) NOT NULL,  [Address] [varchar](50) NOT NULL,  [Address2] [varchar](50) NULL,  [City] [varchar](50) NOT NULL,  [State] [varchar](50) NOT NULL,  [Zip] [varchar](15) NOT NULL,  [CountryID] [int] NOT NULL,  [ContactName] [varchar](max) NULL,  [ContactEmail] [varchar](max) NULL,  [ContactPhone] [varchar](50) NULL,  [DateCreated] [datetime] NULL,  [LastModified] [datetime] NULL,  [ModifiedBy] [int] NULL,  [IsDisabled] [bit] NULL,  CONSTRAINT [PK\_FirmDivision] PRIMARY KEY CLUSTERED  (  [FirmDivisionId] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]  GO  SET ANSI\_PADDING OFF  GO  ALTER TABLE [dbo].[FirmDivision] WITH CHECK ADD CONSTRAINT [FK\_FirmDivision\_Country] FOREIGN KEY([CountryID])  REFERENCES [dbo].[Country] ([CountryID])  GO  ALTER TABLE [dbo].[FirmDivision] CHECK CONSTRAINT [FK\_FirmDivision\_Country]  GO  ALTER TABLE [dbo].[FirmDivision] WITH CHECK ADD CONSTRAINT [FK\_FirmDivision\_Firm] FOREIGN KEY([FirmParentID])  REFERENCES [dbo].[FirmParent] ([FirmParentId])  GO  ALTER TABLE [dbo].[FirmDivision] CHECK CONSTRAINT [FK\_FirmDivision\_Firm]  GO |

### FirmUsers Table View

|  |  |
| --- | --- |
|  | **FirmUsers** are created at the Firm level and/or Division levels and their actual profile and details are captured in the *CPAExam3* database **Users** table. This allows them to be assigned as regular students in the CPAExam/CPAReview application  The **FirmUsers** views and capabilities will be determined by their role. Users that are designated in the **FirmUser** role will not see this application. (see **FirmRole** table view)  **FirmUsers** can be assigned any role  **FirmUsers** can be disabled  **FirmUsers** can be assigned to courses in CPAExam/CPAReview |

#### FirmUsers Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmUsers] Script Date: 3/30/2015 11:07:32 AM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  CREATE TABLE [dbo].[FirmUsers](  [FirmUsersID] [int] IDENTITY(1,1) NOT NULL,  [UserID] [int] NOT NULL,  [FirmParentID] [int] NOT NULL,  [FirmDivisionID] [int] NULL,  [FirmRoleID] [int] NULL,  [DateCreated] [datetime] NULL,  [LastModified] [datetime] NULL,  [ModifiedBy] [int] NULL,  [IsDisabled] [bit] NULL,  CONSTRAINT [PK\_FirmUsers] PRIMARY KEY CLUSTERED  (  [FirmUsersID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY]  GO  ALTER TABLE [dbo].[FirmUsers] WITH CHECK ADD CONSTRAINT [FK\_FirmUsers\_FirmDivision] FOREIGN KEY([FirmDivisionID])  REFERENCES [dbo].[FirmDivision] ([FirmDivisionId])  GO  ALTER TABLE [dbo].[FirmUsers] CHECK CONSTRAINT [FK\_FirmUsers\_FirmDivision]  GO  ALTER TABLE [dbo].[FirmUsers] WITH CHECK ADD CONSTRAINT [FK\_FirmUsers\_FirmParent] FOREIGN KEY([FirmParentID])  REFERENCES [dbo].[FirmParent] ([FirmParentId])  GO  ALTER TABLE [dbo].[FirmUsers] CHECK CONSTRAINT [FK\_FirmUsers\_FirmParent]  GO  ALTER TABLE [dbo].[FirmUsers] WITH CHECK ADD CONSTRAINT [FK\_FirmUsers\_FirmRole] FOREIGN KEY([FirmRoleID])  REFERENCES [dbo].[FirmRole] ([FirmRoleID])  GO  ALTER TABLE [dbo].[FirmUsers] CHECK CONSTRAINT [FK\_FirmUsers\_FirmRole]  GO  ALTER TABLE [dbo].[FirmUsers] WITH CHECK ADD CONSTRAINT [FK\_FirmUsers\_User] FOREIGN KEY([UserID])  REFERENCES [dbo].[Users] ([UserID])  GO  ALTER TABLE [dbo].[FirmUsers] CHECK CONSTRAINT [FK\_FirmUsers\_User]  GO |

### FirmSeatPurchase Table View

|  |  |
| --- | --- |
|  | The Firm’s FirmSeatPurchase is entered by Bisk personnel. This is a read-only table for the firm’s users in an admin role only |

#### FirmSeatPurchase Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmSeatPurchase] Script Date: 4/27/2015 9:46:34 AM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  CREATE TABLE [dbo].[FirmSeatPurchase](  [FirmSeatPurchaseID] [nchar](10) NOT NULL,  [FirmParentID] [int] NOT NULL,  [RegistrationKey] [int] NULL,  [DateTimeStamp] [datetime] NOT NULL,  CONSTRAINT [PK\_FirmSeatPurchase] PRIMARY KEY CLUSTERED  (  [FirmSeatPurchaseID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY]  GO  ALTER TABLE [dbo].[FirmSeatPurchase] ADD CONSTRAINT [DF\_\_FirmPurch\_\_DateT\_\_2F10007B] DEFAULT (getdate()) FOR [DateTimeStamp]  GO  ALTER TABLE [dbo].[FirmSeatPurchase] WITH CHECK ADD CONSTRAINT [FK\_FirmSeatPurchase\_Firm] FOREIGN KEY([FirmParentID])  REFERENCES [dbo].[FirmParent] ([FirmParentId])  GO  ALTER TABLE [dbo].[FirmSeatPurchase] CHECK CONSTRAINT [FK\_FirmSeatPurchase\_Firm]  GO |

### FirmSeats Table View

|  |  |
| --- | --- |
|  | This is a Firm’s transaction table (read-only) that initially records the seats purchased in the *TotalSeats* field and possibly the number of seats in each of the course subject areas.  As seats are assigned, the sum of the assigned seats is totaled to insure that the firm does not exceed the *TotalSeats* amount.  If the business rule is that seats assigned are tallied by Subject area, then the totaling would be calculated by sum and subtraction in the subject area.  The *StartDate* and *EndDate* dates are important for calculating whether seats can be assigned. The period is set in business rules as 18 months. If the current date is past the Enddate, then seats can no longer be assigned. |

#### FirmSeats Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmSeats] Script Date: 3/30/2015 10:54:28 AM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  CREATE TABLE [dbo].[FirmSeats](  [FirmSeatsID] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [FirmParentID] [int] NOT NULL,  [DateTimeStamp] [datetime] NOT NULL,  [StartDate] [datetime] NULL,  [EndDate] [datetime] NULL,  [TotalSeats] [int] NULL,  [REGSeats] [int] NULL,  [FARSeats] [int] NULL,  [BECSeats] [int] NULL,  [AUDSeats] [int] NULL,  [LastModified] [datetime] NULL,  [ModifiedBy] [int] NULL,  [IsDisabled] [bit] NULL,  CONSTRAINT [PK\_FirmSeats] PRIMARY KEY CLUSTERED  (  [FirmSeatsID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY]  GO  ALTER TABLE [dbo].[FirmSeats] WITH CHECK ADD CONSTRAINT [FK\_FirmSeats\_Firm] FOREIGN KEY([FirmParentID])  REFERENCES [dbo].[FirmParent] ([FirmParentId])  GO  ALTER TABLE [dbo].[FirmSeats] CHECK CONSTRAINT [FK\_FirmSeats\_Firm]  GO |

### FirmSeatType Table View

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | 1 | REG | Regulation | | 2 | FAR | Financial Accounting & Reporting | | 3 | BEC | Business Environment & Concepts | | 4 | AUD | Auditing & Attestation | |  |

#### FirmSeatType Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmSeatType] Script Date: 3/24/2015 1:02:46 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[FirmSeatType](  [FirmSeatTypeID] [int] IDENTITY(1,1) NOT NULL,  [FirmSeatTypeName] [varchar](10) NOT NULL,  [Description] [varchar](max) NULL,  CONSTRAINT [PK\_FirmSeatType] PRIMARY KEY CLUSTERED  (  [FirmSeatTypeID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]  GO  SET ANSI\_PADDING ON  GO |

### FirmUserSeat Table View

|  |  |
| --- | --- |
| The **FirmUserSeat** is assigned by the ***FirmAdmin*** or ***DivAdmin*** role user.  The actual seat is derived from the Registration process (**Registration** table + **Calendar** table).  The *Registration* column will be the link to the **Registration** table and will be designated as a Foreign key.  The *FirmSeatTypeID* should be directed from a pull-down menu from the **FirmSeatType** table  If the user has not begun the course, this assignment can be changed. The **Registration** table contains the actual *UserID* which is linked to **FirmUsers** table.  Not adding the *FirmUsersID* to this table make reassignment much more straight-forward and less cluttered. |  |

#### FirmUserSeat Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[FirmUserSeat] Script Date: 3/24/2015 1:07:43 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  CREATE TABLE [dbo].[FirmUserSeat](  [FirmUserSeatID] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [FirmSeatsID] [int] NOT NULL,  [RegistrationKey] [int] NULL,  [FirmSeatTypeID] [int] NULL,  [StartDate] [datetime] NULL,  [EndDate] [datetime] NULL,  [DateCreated] [bit] NULL,  [LastModified] [datetime] NULL,  [ModifiedBy] [int] NULL,  [IsDisabled] [bit] NULL,  CONSTRAINT [PK\_FirmUserSeat] PRIMARY KEY CLUSTERED  (  [FirmUserSeatID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY]  GO  ALTER TABLE [dbo].[FirmUserSeat] WITH CHECK ADD CONSTRAINT [FK\_FirmUserSeat\_FirmSeats] FOREIGN KEY([FirmSeatsID])  REFERENCES [dbo].[FirmSeats] ([FirmSeatsID])  GO  ALTER TABLE [dbo].[FirmUserSeat] CHECK CONSTRAINT [FK\_FirmUserSeat\_FirmSeats]  GO  ALTER TABLE [dbo].[FirmUserSeat] WITH CHECK ADD CONSTRAINT [FK\_FirmUserSeat\_FirmSeatType] FOREIGN KEY([FirmSeatTypeID])  REFERENCES [dbo].[FirmSeatType] ([FirmSeatTypeID])  GO  ALTER TABLE [dbo].[FirmUserSeat] CHECK CONSTRAINT [FK\_FirmUserSeat\_FirmSeatType]  GO |

|  |  |
| --- | --- |
|  | The result of running the above ***Create*** table scripts should have the tables shown on the left screen shot added.  The blacked out table is FirmUser – an artifact from other functionality in CPAReview and not part of this project… |

### Help\_Roles Table View

|  |  |
| --- | --- |
|  | This table is associated with the UserType table. It is independent of the Firm Application.  Nothing has been changed in regards to the Firm Application roles. |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  | | --- | --- | --- | --- | | RoleID | RoleName | RoleDescription | IsActive | | 1 | Student | CPA Student | 1 | | 2 | Professor | CPA Professor | 1 | | 3 | Admin | CPA Admin | 1 | | 4 | ASLStudent | ASL Student | 1 | | 5 | ASLProfessor | ASL Professor | 1 | |

#### Help\_Roles Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[Help\_Roles] Script Date: 3/24/2015 1:09:56 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[Help\_Roles](  [RoleID] [int] NOT NULL,  [RoleName] [varchar](50) NOT NULL,  [RoleDescription] [varchar](250) NULL,  [IsActive] [bit] NOT NULL DEFAULT ((1)),  CONSTRAINT [PK\_Help\_Roles] PRIMARY KEY CLUSTERED  (  [RoleID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY]  GO  SET ANSI\_PADDING ON  GO |

### 

### UserType Table View

|  |  |
| --- | --- |
| Like the User Table, this table already exists in all other environments and does not require modifications.  The creation script should be taken from any of the other environments, as the Foreign Key names are already established in those environments. |  |
|  |  |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | TypeKey | TypeName | TypeDesc | TextColor | HelpRoleID | | 0 | Demo | Demo User | royalblue | 1 | | 1 | Guest | Guest Account | MidnightBlue | 1 | | 2 | Student | Student | SteelBlue | 1 | | 3 | Professor | Professor | Sienna | 2 | | 4 | Sales | CPAExam Sales Rep | OrangeRed | 1 | | 5 | UA Rep | University Alliance Rep | YellowGreen | 1 | | 6 | AdminSales | Administrator for Sales Dept | #FF0099 | 3 | | 7 | Technical Support | Tech Support | blue | 1 | | 8 | Guest Admin | Guest Admin | DarkRed | 3 | | 9 | SystemAdmin | System Administrator | OrangeRed | 3 | | 10 | E&Y Admin | Ernst & Young Admin | blue | 3 | | 15 | Super Admin | Ernst & Young Super Admin | #ff0099 | 3 | | 20 | Question Editor | Question Editor | Peru | 1 | | 32 | Site Admin | Site Administrator | DarkViolet | 3 | | 45 | Bisk Admin | Bisk Administrator | OrangeRed | 3 | | 46 | CPAOnline\_Rep | CPA Online Reps | OrangeRed | 4 | | 47 | CPAOnline\_Student | CPA Online Student | OrangeRed | 4 | | 48 | CPAOnline\_Professor | CPA Online Professor | OrangeRed | 5 | | 49 | KPMG\_Admin | KPMG Area Administrator | SteelBlue | 3 | | 50 | KPMG\_AreaAdvisor | KPMG Area Advisors | SteelBlue | 1 | | 51 | FirmAdminUser | Type of Firm Administrator | #cc3300 | 1 | | |

#### UserType Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[UserType] Script Date: 3/24/2015 1:22:06 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[UserType](  [TypeKey] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [TypeName] [varchar](150) NULL,  [TypeDesc] [text] NULL,  [TextColor] [varchar](50) NULL,  [HelpRoleID] [int] NOT NULL DEFAULT ((1)),  CONSTRAINT [PK\_UserType\_1] PRIMARY KEY CLUSTERED  (  [TypeKey] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]  GO  SET ANSI\_PADDING ON  GO  ALTER TABLE [dbo].[UserType] WITH CHECK ADD CONSTRAINT [FK\_UserType\_HelpRoles] FOREIGN KEY([HelpRoleID])  REFERENCES [dbo].[Help\_Roles] ([RoleID])  GO  ALTER TABLE [dbo].[UserType] CHECK CONSTRAINT [FK\_UserType\_HelpRoles]  GO |

### Users Table View

|  |  |
| --- | --- |
|  | The actual **Users** table has many more Foreign Keys. The create script provided here is just for completeness in this document.  This table exists in Development, Staging, and Production and does not require any modifications. It can be used as is.  The *UserID* column is the link used by the FirmUsers table |

#### Users Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[Users] Script Date: 3/24/2015 1:16:23 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[Users](  [UserID] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [TypeKey] [int] NOT NULL,  [UserName] [varchar](50) NOT NULL,  [Password] [varchar](50) NOT NULL,  [FName] [varchar](150) NOT NULL,  [LName] [varchar](150) NOT NULL,  [CustomerNum] [varchar](10) NULL,  [DivisionKey] [int] NOT NULL,  [Email] [varchar](255) NOT NULL,  [Address] [varchar](50) NOT NULL,  [Address2] [varchar](50) NULL,  [City] [varchar](30) NOT NULL,  [State] [varchar](50) NOT NULL,  [Zip] [varchar](10) NULL,  [CountryID] [int] NOT NULL,  [DayPhone] [varchar](50) NULL,  [EvePhone] [varchar](50) NULL,  [Fax] [varchar](50) NULL,  [SchoolAttended] [varchar](50) NULL,  [SalesRep] [varchar](50) NULL,  [bBioVisible] [bit] NULL,  [Biography] [text] NULL,  [CDROM] [varchar](2) NULL,  [UPN] [varchar](25) NULL,  [OfficeKey] [int] NULL,  [ServiceLineKey] [int] NULL,  [UserDateCreated] [datetime] NULL,  [UserLastModified] [datetime] NULL,  [UserModifiedBy] [int] NULL,  [WebsiteID] [int] NOT NULL,  [PasswordExpiration] [datetime] NULL,  [bShowQuestionsExplanations] [bit] NULL,  [SpecialShippingInstructions] [varchar](8000) NULL,  [SalesRepEmail] [varchar](255) NULL,  [University] [varchar](255) NULL,  [GraduationDate] [datetime] NULL,  [SalesRepUPN] [varchar](25) NULL,  [WizardStatus] [int] NULL,  [GreatPlainsRepID] [int] NULL,  [CandidatePostNotificationTypeID] [int] NULL,  [FacultyPostNotificationTypeID] [int] NULL,  [EnableBookmarks] [bit] NOT NULL,  [EnableBooknotes] [bit] NOT NULL,  [IsDisabled] [bit] NOT NULL,  [TestUser] [bit] NOT NULL,  CONSTRAINT [PK\_Users] PRIMARY KEY CLUSTERED  (  [UserID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON, FILLFACTOR = 90) ON [PRIMARY]  ) ON [PRIMARY] TEXTIMAGE\_ON [PRIMARY]  GO  SET ANSI\_PADDING ON  GO  ALTER TABLE [dbo].[Users] ADD DEFAULT ((1)) FOR [EnableBookmarks]  GO  ALTER TABLE [dbo].[Users] ADD DEFAULT ((1)) FOR [EnableBooknotes]  GO  ALTER TABLE [dbo].[Users] ADD CONSTRAINT [DF\_Users\_IsDisabled] DEFAULT ((0)) FOR [IsDisabled]  GO  ALTER TABLE [dbo].[Users] ADD CONSTRAINT [DF\_Users\_TestUser] DEFAULT ((0)) FOR [TestUser]  GO  ALTER TABLE [dbo].[Users] WITH CHECK ADD CONSTRAINT [FK\_Users\_Users] FOREIGN KEY([UserID])  REFERENCES [dbo].[Users] ([UserID])  GO  ALTER TABLE [dbo].[Users] CHECK CONSTRAINT [FK\_Users\_Users]  GO  ALTER TABLE [dbo].[Users] WITH CHECK ADD CONSTRAINT [FK\_Users\_UserType] FOREIGN KEY([TypeKey])  REFERENCES [dbo].[UserType] ([TypeKey])  GO  ALTER TABLE [dbo].[Users] CHECK CONSTRAINT [FK\_Users\_UserType]  GO |

### UserLogins Table View

|  |  |
| --- | --- |
| Each user login should be captured in this table. It will be used to capture user sessions logging into the Firm Application. |  |

#### UserLogins Create Script

|  |
| --- |
| USE [CPAExam3]  GO  /\*\*\*\*\*\* Object: Table [dbo].[UserLogins] Script Date: 3/24/2015 1:13:07 PM \*\*\*\*\*\*/  SET ANSI\_NULLS ON  GO  SET QUOTED\_IDENTIFIER ON  GO  SET ANSI\_PADDING ON  GO  CREATE TABLE [dbo].[UserLogins](  [LoginID] [int] IDENTITY(1,1) NOT FOR REPLICATION NOT NULL,  [LoginDate] [datetime] NOT NULL,  [IP] [varchar](20) NOT NULL,  [UserID] [int] NOT NULL,  [UserName] [varchar](50) NOT NULL,  [WebsiteID] [int] NOT NULL,  [IsAuthorizationSuccessful] [bit] NOT NULL,  CONSTRAINT [PK\_UserLogins] PRIMARY KEY CLUSTERED  (  [LoginID] ASC  )WITH (PAD\_INDEX = OFF, STATISTICS\_NORECOMPUTE = OFF, IGNORE\_DUP\_KEY = OFF, ALLOW\_ROW\_LOCKS = ON, ALLOW\_PAGE\_LOCKS = ON) ON [PRIMARY]  ) ON [PRIMARY]  GO  SET ANSI\_PADDING ON  GO  ALTER TABLE [dbo].[UserLogins] WITH CHECK ADD CONSTRAINT [FK\_UserLogins\_User] FOREIGN KEY([UserID])  REFERENCES [dbo].[Users] ([UserID])  GO  ALTER TABLE [dbo].[UserLogins] CHECK CONSTRAINT [FK\_UserLogins\_User]  GO |

## States Table View

|  |  |
| --- | --- |
|  | This table **MUST** be modified to add the following record:    This will create a proper record when country is not USA in the Firm Administration application. It should not impact other applications. |

## New – Canada Province

|  |  |
| --- | --- |
| This was added to match User data entry requirements when there is a Canadian Country designation |  |

## FirmEntity – Entity Diagram

|  |
| --- |
|  |

The entity Diagram does not include the Registration table, which is an integral component in terms of assigning users to classes. The extensive documentation included here will allow for easy Entity Model changes, and eventually the integration of this entity with the classes and class assignments.

# Task 11485

Modify CPAReview to support View based on Role login

In this task, the following code has been modified in the following code areas:

|  |
| --- |
| CPAExamData\Data\Enumerations.cs  Role enumerations are found at:  C:\KS\Bisk\CPAExam\DevTeam\CPAExamData\Data\Enumerations.cs |
| Line 253  public enum RoleID  {  Demo = 0,  Guest = 1,  Student = 2,  Professor = 3,  Sales = 4,  UARep = 5,  AdminSales = 6,  TechnicalSupport = 7,  GuestAdmin = 8,  SystemAdmin = 9,  EYAdmin = 10,  SuperAdmin = 15,  QuestionEditor = 20,  SiteAdmin = 32,  BiskAdmin = 45,  CPAOnlineRep = 46,  CPAOnlineStudent = 47,  CPAOnlineProfessor = 48,  KPMGAdmin = 49,  KPMGAreaAdvisor = 50,          FirmAdminUser = 51  } |

Review C:\KS\Bisk\CPAExam\DevTeam\CPAExamWebsite\Classes\Permissions.cs

|  |
| --- |
| C:\KS\Bisk\CPAExam\DevTeam\CPAExamData\DataHelper.cs |
| public static class DataHelper   {       public static RoleID[] AdminRoles       {           get           {               return new RoleID[] {                   RoleID.AdminSales,                   RoleID.EYAdmin,                   RoleID.GuestAdmin,                   RoleID.QuestionEditor,                   RoleID.Sales,                   RoleID.SuperAdmin,                   RoleID.SiteAdmin,                   RoleID.SystemAdmin,                   RoleID.TechnicalSupport,                   RoleID.UARep,                   RoleID.BiskAdmin,                   RoleID.CPAOnlineRep,                   RoleID.KPMGAdmin,                   RoleID.KPMGAreaAdvisor,                   RoleID.FirmAdminUser               };           }       } |

|  |
| --- |
| C:\KS\Bisk\CPAExam\DevTeam\CPAExamWebsite\Classes\General.cs |
| Line 998             public enum UserTypeID  {  //ALWAYS use the query below to update the list  //select Replace(Replace(TypeName,' ','\_'),'&','\_') + ' =  ' + convert(varchar(50),TypeKey) from dbo.UserType order by TypeKey  Demo = 0,  Guest = 1,  Student = 2,  Professor = 3,  Sales = 4,  UA\_Rep = 5,  AdminSales = 6,  Technical\_Support = 7,  Guest\_Admin = 8,  SystemAdmin = 9,  E\_Y\_Admin = 10,  Super\_Admin = 15,  Question\_Editor = 20,  Site\_Admin = 32,  Bisk\_Admin = 45,  CPAOnline\_Admin = 46,  CPAOnline\_Student = 47,  CPAOnline\_Professor = 48,  KPMG\_Admin = 49,  KPMG\_Advisor = 50,                  FirmAdminUser = 51  } |

## Modify UserType Table

|  |  |
| --- | --- |
| The UserType table will contain preliminary user role information, but will only be referenced when the user logs in.  If the user is not designated as a ***FirmAdminUser*** – they will be directed to the normal CPAExam/CPAReview location.  In the application ***FirmAdminUser*** will be directed to their Firm site, where the views and functionality will be determined by their identification and role in the FirmUsers table based on their lookup using the *UserID* value. |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TypeKey | TypeName | TypeDesc | TextColor | HelpRoleID |
| 0 | Demo | Demo User | royalblue | 1 |
| 1 | Guest | Guest Account | MidnightBlue | 1 |
| 2 | Student | Student | SteelBlue | 1 |
| 3 | Professor | Professor | Sienna | 2 |
| 4 | Sales | CPAExam Sales Rep | OrangeRed | 1 |
| 5 | UA Rep | University Alliance Rep | YellowGreen | 1 |
| 6 | AdminSales | Administrator for Sales Dept | #FF0099 | 3 |
| 7 | Technical Support | Tech Support | blue | 1 |
| 8 | Guest Admin | Guest Admin | DarkRed | 3 |
| 9 | SystemAdmin | System Administrator | OrangeRed | 3 |
| 10 | E&Y Admin | Ernst & Young Admin | blue | 3 |
| 15 | Super Admin | Ernst & Young Super Admin | #ff0099 | 3 |
| 20 | Question Editor | Question Editor | Peru | 1 |
| 32 | Site Admin | Site Administrator | DarkViolet | 3 |
| 45 | Bisk Admin | Bisk Administrator | OrangeRed | 3 |
| 46 | CPAOnline\_Rep | CPA Online Reps | OrangeRed | 4 |
| 47 | CPAOnline\_Student | CPA Online Student | OrangeRed | 4 |
| 48 | CPAOnline\_Professor | CPA Online Professor | OrangeRed | 5 |
| 49 | KPMG\_Admin | KPMG Area Administrator | SteelBlue | 3 |
| 50 | KPMG\_AreaAdvisor | KPMG Area Advisors | SteelBlue | 1 |
| 51 | FirmAdminUser | Type of Firm Administrator | #cc3300 | 1 |

# Task 11401 - Create UI for Firm Administration

This task involves getting data from the Entity Framework iteration and binding to the UI for the firm. To accomplish this, the entity framework was created in the CPAExamData project, and then the App.Config call was copied to the Web.Config in the CPAExamWebsite project.

The configuration copied was as follows:

|  |
| --- |
| <add name="FirmEntities" connectionString="metadata=res://\*/Data.FirmEntity.csdl|res://\*/Data.FirmEntity.ssdl|res://\*/Data.FirmEntity.msl;provider=System.Data.SqlClient;provider connection string=&quot;data source=C885AQWBISKDV.ECOMQC.TLRG.COM;initial catalog=CPAExam3;persist security info=True;user id=CPAExamMain;password=biskTa$tic1;MultipleActiveResultSets=True;App=EntityFramework&quot;" providerName="System.Data.EntityClient" /> |

From CPAReview – user with proper credentials will see the following:

|  |
| --- |
|  |

## Firm Administration Form

After clicking the Firm icon, you will see the following:

|  |
| --- |
|  |

The fields with the red asterisk \* are required fields. The current code implementation will indicate an issue with the field not having proper data, but will not cause the form to stop functioning because it is coded in jQuery for client-side warnings. The form itself is also using server-side coding for error trapping, so even if the user does not follow the warnings, the record will never be created until the error items have been resolved.

The Firm Name is looked up to insure that there are no duplicates, but this should be under review. There may be a need to lookup both Firm Name and address to allow for firm purchases in multiple locations. There will be the ability to have divisions under the firm, but this may not satisfy large customer requirements.

If the country is changed from US to anything else, the zip and state titles, and entry fields are hidden. Since this is not intended to be a data entry used for mailing, the addressing portions are only important for determining general client location. If the country is US, an error will occur if the user has not selected a state.

The contact email is a required field, and contact name could be, since the initial process for entering the firm is intended for creating a base record for a firm’s administrator to log into. The administrator would need an initial account created in the User database to have a password and user name, along with a firm role assigned.

Error and response messages are presented using the **SaySomething()** function as follows:

|  |
| --- |
| private void SaySomething(string \_error)  {      lblWhat.Text = \_error;       lblWhat.Visible = true;  } |

The label control ***lblWhat*** is the object used to present the error or message.

# Task 11490

## Search Routine

The Search routine uses an OR’d search pattern using the following logic:

|  |
| --- |
| var firms = from b in db.FirmParents                       where b.Firm\_Name.ToLower().Contains(firm.ToLower())                           || b.Address.ToLower().Contains(firm.ToLower())                           || b.City.ToLower().Contains(firm.ToLower())                           || b.ContactEmail.ToLower().Contains(firm.ToLower())                       select b; |

From this code, you can see that case sensitivity is nullified, and we start with firm name, address, city, and finally email address to match our search string. This mitigates the need to create separate search context and allows a seamless search routine for the user. In this code, you can see that we are using LINQ to aid in building our search routine.

Since the underlying database has had entity framework with database first implemented in this application, we are able to take advantage of the underlying classes created to build very complex LINQ statements. This offers an advantage over stored procedures because the context for the data retrieval is not lost between technologies. Changes to the logic will require recompiling as opposed to stored procedures, but in general – stored procedures are not changed very often and the abstraction between code and data can be obfuscated with all of the technological requirements of implementing stored procedures in code.

The UI result from search has not been fashioned elegantly, and there is only a rudimentary representative UI expressed as follows:

|  |
| --- |
|  |

In this instance, all of the fields are represented to show that everything can be available. The date field Date Created is the only date field updated. There is no editing capability set at this iteration, but the Modified By field is updated with the (ModifiedBy = ContextHelper.CurrentUser.UserID) code in the *c:\ks\bisk\cpaexam\devteam\cpaexamwebsite\cpareview\admin\tools\firmmanager\default.aspx.cs* code file.

# Task 11485

## Modify CPAReview to support View based on Role login

In this task, the following code has been modified in the following code areas:

|  |
| --- |
| CPAExamData\Data\Enumerations.cs  Role enumerations are found at:  C:\KS\Bisk\CPAExam\DevTeam\CPAExamData\Data\Enumerations.cs |
| Line 253  public enum RoleID  {  Demo = 0,  Guest = 1,  Student = 2,  Professor = 3,  Sales = 4,  UARep = 5,  AdminSales = 6,  TechnicalSupport = 7,  GuestAdmin = 8,  SystemAdmin = 9,  EYAdmin = 10,  SuperAdmin = 15,  QuestionEditor = 20,  SiteAdmin = 32,  BiskAdmin = 45,  CPAOnlineRep = 46,  CPAOnlineStudent = 47,  CPAOnlineProfessor = 48,  KPMGAdmin = 49,  KPMGAreaAdvisor = 50,          FirmAdminUser = 51  } |

Review C:\KS\Bisk\CPAExam\DevTeam\CPAExamWebsite\Classes\Permissions.cs

|  |
| --- |
| C:\KS\Bisk\CPAExam\DevTeam\CPAExamData\DataHelper.cs |
| public static class DataHelper   {       public static RoleID[] AdminRoles       {           get           {               return new RoleID[] {                   RoleID.AdminSales,                   RoleID.EYAdmin,                   RoleID.GuestAdmin,                   RoleID.QuestionEditor,                   RoleID.Sales,                   RoleID.SuperAdmin,                   RoleID.SiteAdmin,                   RoleID.SystemAdmin,                   RoleID.TechnicalSupport,                   RoleID.UARep,                   RoleID.BiskAdmin,                   RoleID.CPAOnlineRep,                   RoleID.KPMGAdmin,                   RoleID.KPMGAreaAdvisor,                   RoleID.FirmAdminUser               };           }       } |

|  |
| --- |
| C:\KS\Bisk\CPAExam\DevTeam\CPAExamWebsite\Classes\General.cs |
| Line 998             public enum UserTypeID  {  //ALWAYS use the query below to update the list  //select Replace(Replace(TypeName,' ','\_'),'&','\_') + ' =  ' + convert(varchar(50),TypeKey) from dbo.UserType order by TypeKey  Demo = 0,  Guest = 1,  Student = 2,  Professor = 3,  Sales = 4,  UA\_Rep = 5,  AdminSales = 6,  Technical\_Support = 7,  Guest\_Admin = 8,  SystemAdmin = 9,  E\_Y\_Admin = 10,  Super\_Admin = 15,  Question\_Editor = 20,  Site\_Admin = 32,  Bisk\_Admin = 45,  CPAOnline\_Admin = 46,  CPAOnline\_Student = 47,  CPAOnline\_Professor = 48,  KPMG\_Admin = 49,  KPMG\_Advisor = 50,                  FirmAdminUser = 51  } |

C:\KS\Bisk\CPAExam\DevTeam\CPAExamData\Data\Enumerations.cs

|  |
| --- |
| public enum RoleID  {  Demo = 0,  Guest = 1,  Student = 2,  Professor = 3,  Sales = 4,  UARep = 5,  AdminSales = 6,  TechnicalSupport = 7,  GuestAdmin = 8,  SystemAdmin = 9,  EYAdmin = 10,  SuperAdmin = 15,  QuestionEditor = 20,  SiteAdmin = 32,  BiskAdmin = 45,  CPAOnlineRep = 46,  CPAOnlineStudent = 47,  CPAOnlineProfessor = 48,  KPMGAdmin = 49,  KPMGAreaAdvisor = 50,           FirmAdminUser = 51  } |

C:\KS\Bisk\CPAExam\DevTeam\CPAExamData\DataHelper.cs

|  |
| --- |
| public static RoleID[] AdminRoles         {             get             {                 return new RoleID[] {                     RoleID.AdminSales,                     RoleID.EYAdmin,                     RoleID.GuestAdmin,                     RoleID.QuestionEditor,                     RoleID.Sales,                     RoleID.SuperAdmin,                     RoleID.SiteAdmin,                     RoleID.SystemAdmin,                     RoleID.TechnicalSupport,                     RoleID.UARep,                     RoleID.BiskAdmin,                     RoleID.CPAOnlineRep,                     RoleID.KPMGAdmin,                     RoleID.KPMGAreaAdvisor,                     RoleID.FirmAdminUser                 };             }         } |

## Modify UserType Table

|  |  |
| --- | --- |
| The UserType table will contain preliminary user role information, but will only be referenced when the user logs in.  If the user is not designated as a ***FirmAdminUser*** – they will be directed to the normal CPAExam/CPAReview location.  In the application ***FirmAdminUser*** will be directed to their Firm site, where the views and functionality will be determined by their identification and role in the FirmUsers table based on their lookup using the *UserID* value. |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TypeKey | TypeName | TypeDesc | TextColor | HelpRoleID |
| 0 | Demo | Demo User | royalblue | 1 |
| 1 | Guest | Guest Account | MidnightBlue | 1 |
| 2 | Student | Student | SteelBlue | 1 |
| 3 | Professor | Professor | Sienna | 2 |
| 4 | Sales | CPAExam Sales Rep | OrangeRed | 1 |
| 5 | UA Rep | University Alliance Rep | YellowGreen | 1 |
| 6 | AdminSales | Administrator for Sales Dept | #FF0099 | 3 |
| 7 | Technical Support | Tech Support | blue | 1 |
| 8 | Guest Admin | Guest Admin | DarkRed | 3 |
| 9 | SystemAdmin | System Administrator | OrangeRed | 3 |
| 10 | E&Y Admin | Ernst & Young Admin | blue | 3 |
| 15 | Super Admin | Ernst & Young Super Admin | #ff0099 | 3 |
| 20 | Question Editor | Question Editor | Peru | 1 |
| 32 | Site Admin | Site Administrator | DarkViolet | 3 |
| 45 | Bisk Admin | Bisk Administrator | OrangeRed | 3 |
| 46 | CPAOnline\_Rep | CPA Online Reps | OrangeRed | 4 |
| 47 | CPAOnline\_Student | CPA Online Student | OrangeRed | 4 |
| 48 | CPAOnline\_Professor | CPA Online Professor | OrangeRed | 5 |
| 49 | KPMG\_Admin | KPMG Area Administrator | SteelBlue | 3 |
| 50 | KPMG\_AreaAdvisor | KPMG Area Advisors | SteelBlue | 1 |
| 51 | FirmAdminUser | Type of Firm Administrator | #cc3300 | 1 |