Document One (for Client):

Detailed requirements on how to support, update, and use our system:
Use of System: We pride our system on its ease-of-use. To use our system, you must login with a username and password, go to the dashboard, and use the navigation bar at the top of the page to go between the various pages within our system. All data is able to be entered into the system from the front-end through forms and settings pages. If Green Valley needs to access the database for some reason (i.e., add tables for a new business venture, such as adding their catering company data/forms to this system), we recommend they consult their newly hired in-house System Administrator and IT Manager from Valley MicroComputers.

Support System: In order to fully support our system, we recommend that Green Valley Auctions hires a System Administrator that is familiar with utilizing SQL, ASP.NET framework and experience with an object-oriented programming language such as C#. To hire a full-time System Administrator for a system and company of this scale, we estimate the costs for salary of this person would likely be $43,000-$65,000 (see sources). The person in this position would be able to make necessary updates to the system itself, manage the AWS configuration, and make large-scale changes to the database when needed.

Update System: For updating our system, the specific requirements and processes to take would depend on what the system maintenance user is trying to manipulate or update. However, as stated in the "Support System" section, this would again fall under the role and requirements of the System Administrator. To properly update and implement a new feature within the site, this process would ideally first begin with a restructuring or addition to the database followed by the application of the corresponding WebControls and C# code-behind that would allow the intended functionality to be executed error-free. Further, if the system itself or Web traffic continues to grow in size, then there would be changes that would need to be made to the Amazon Web Services (AWS) instance to handle the increased load.

Outlook Documentation

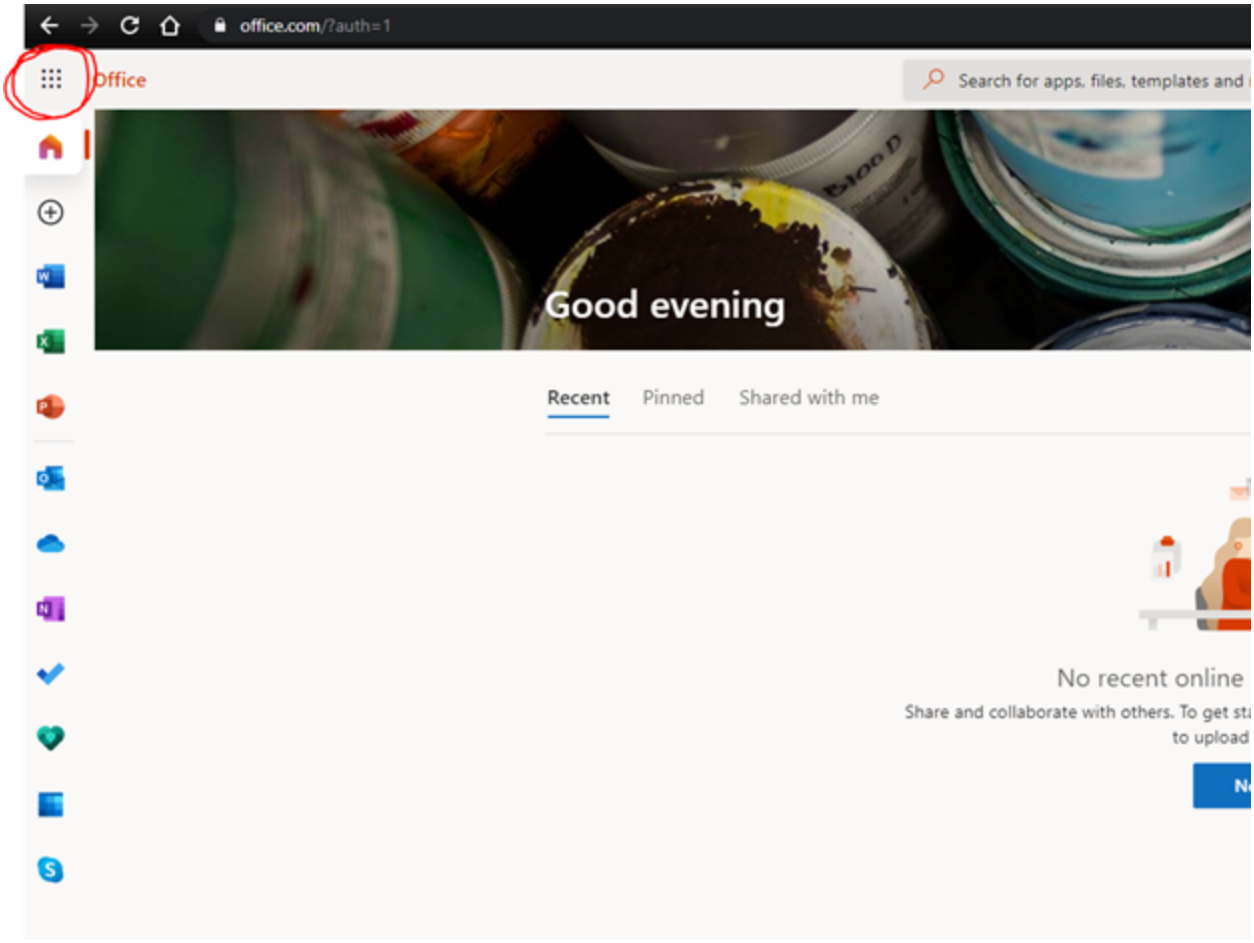
Instructions to Implement GVA's Outlook Calendar and E-mail

Calendar

Outlook side:

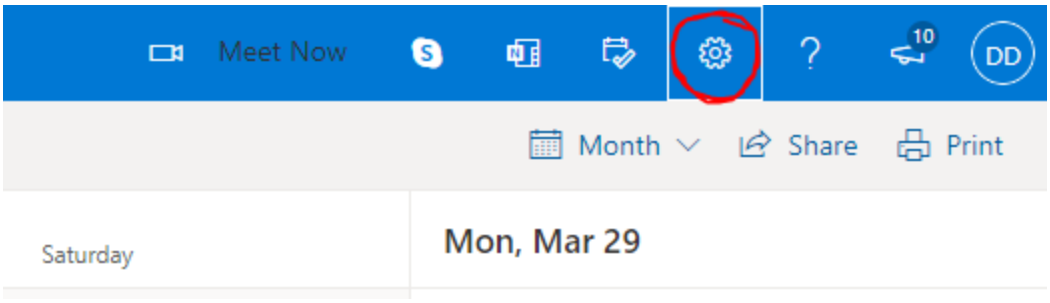
1. **Go to:** https://www.office.com/
2. **Sign into your account**

3. **In the top left, select the options button (9 dots)**

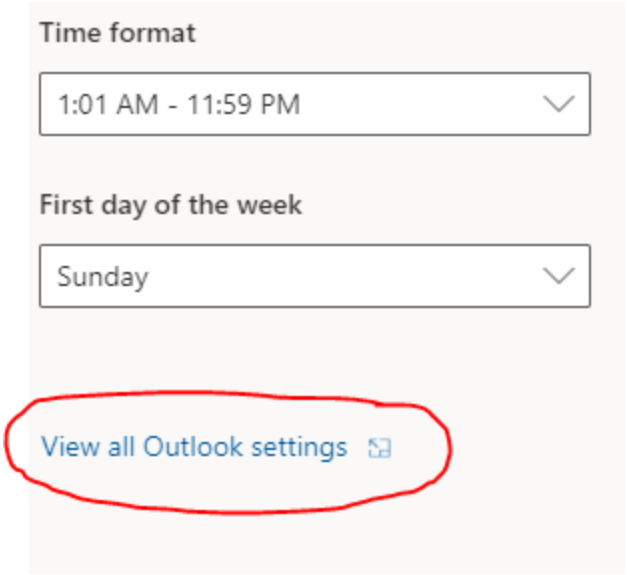


4. **Select Calendar**

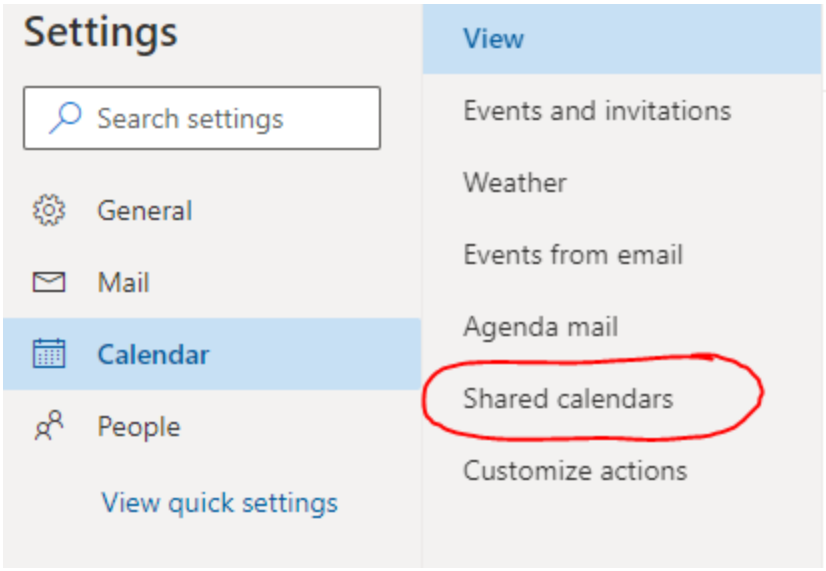
5. **In the top right, go to settings (the gear icon)**



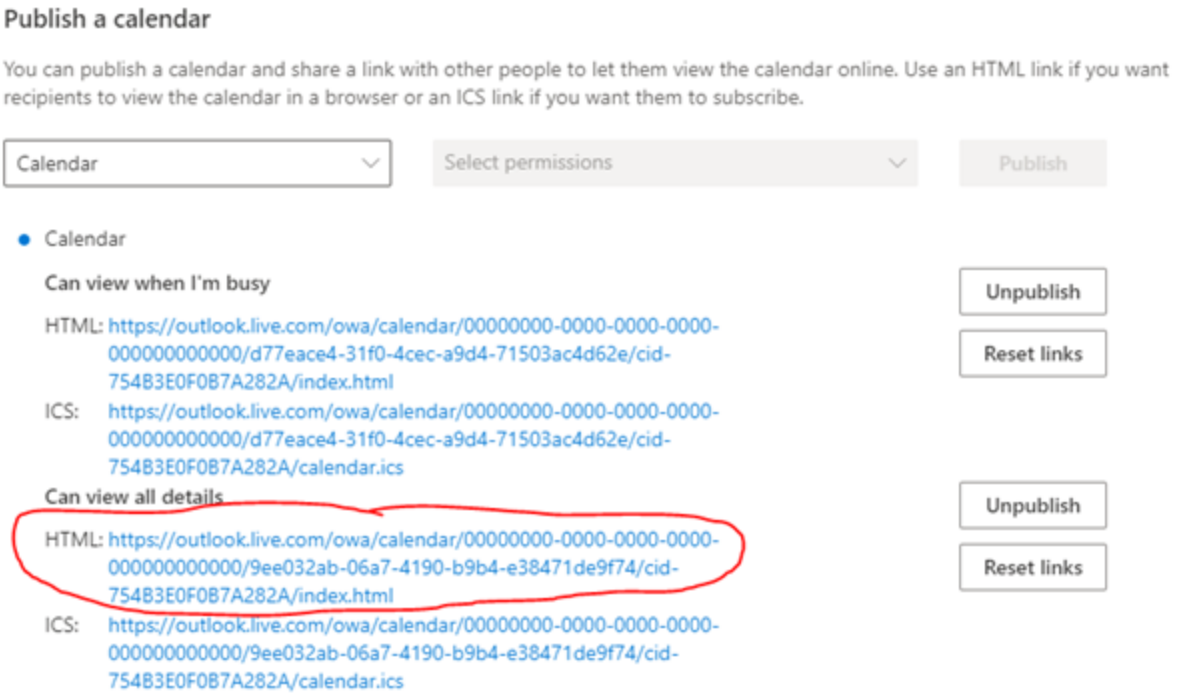
6. **In the bottom right click view all options**



7. **Click on Shared Calendars on the left**



8. You will then see Publish a Calendar



9. Select the Calendar you want to publish

   a. Select Can view all details

   b. Copy the HTML link under “Can view all details”

Outlook side is done

Visual Studio Side:

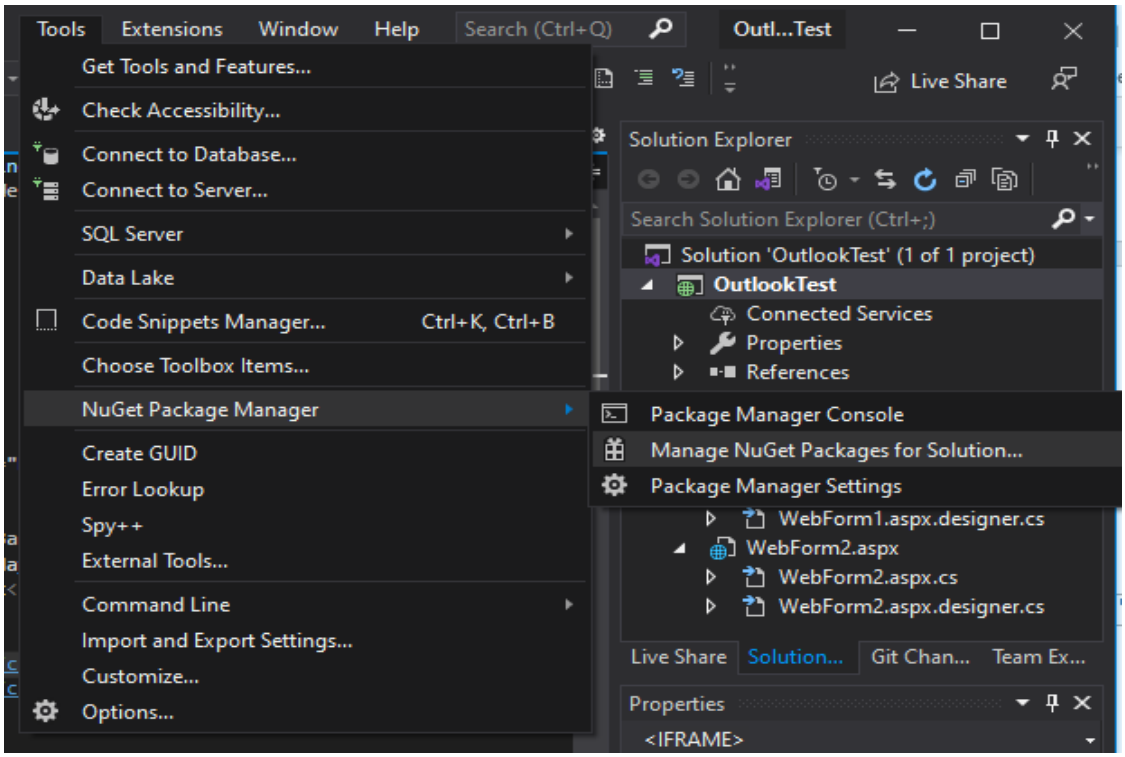
1. In the EmployeeDashboard.aspx find the iframe that holds the HTML from above: <iframe src="put your HTML link from outlook here" width="1500" height="700" ></iframe>

Calendar is now integrated

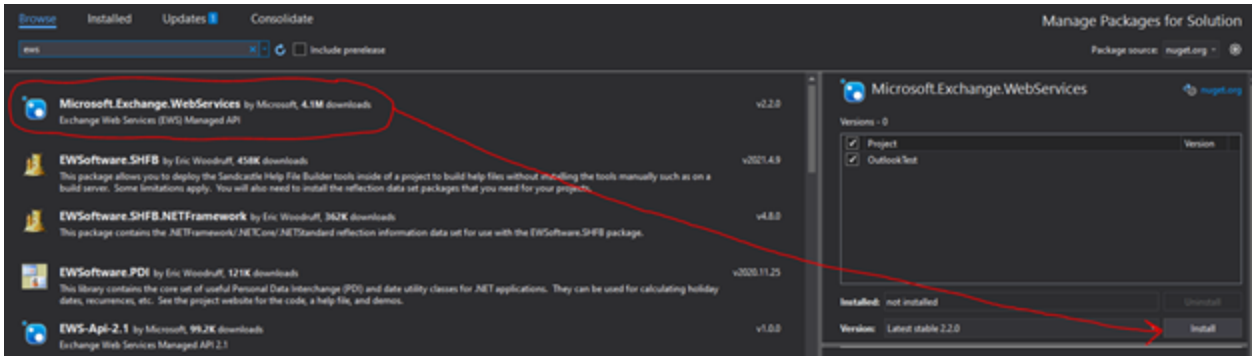
E-Mail

Visual Studio Side:

1. In Tools at the top, NuGet Package Manager -> Manage NuGet Packages for Solution…



2. Browse, search ews and install



3. In the AuctionCompletionForm.aspx.cs and MoveCompletionForm.aspx.cs replace two lines in each:

```
service.Credentials = new WebCredentials("your email address", "your password");


service.AutodiscoverUrl("your email address", RedirectionUrlValidationCallback);
```

E-Mail functionality will now work

AWS Documentation

The Elastic Beanstalk and IAM user will be free to create. For Amazon Relational Database Service (RDS), the cost is billed monthly and is split up into two main sections. The first section is the general SQL Server cost itself. SQL Server is what we utilize to house our database and the corresponding data entities. This cost would total roughly $16.06 / month, or $192.72 / year. Secondly, the general “storage” cost is billed monthly as well. This is the corresponding cost for holding the database storage on their elastic cloud. The cost for this service is approximately $11.50 / month, or $138.00 / year. The total cost for utilizing Amazon RDS services, for a 100GB system, is $27.56 / month, or $330.72 / year.

RDS Setup:
When creating the RDS database, we recommend the following settings

- DB instance size: free tier
- Edit security settings as recommended by your IT department
- For VPC security group settings, we recommend you consult your IT department
- The end point given after creating the RDS database will be copied and pasted into Microsoft SQL Server’s “Server name” textbox
    - The login and password will be the same as what you used while creating the RDS database
    - The connection strings in the Visual Studio sln will also need to be updated with the endpoint as the server name

IAM User Setup:
You will also need to create an IAM user through the AWS Portal. This user needs the following permissions:

- Go through “Set User Details” to create your username
- AWS access type should be “Programmatic Access”
- Under “set permissions” check a box that says “Attach existing policies directly”
- Select a checkbox for “Administrator Access” and “PowerUserAccess”as well
- Save your credentials

Elastic Beanstalk Setup:
When creating the Elastic Beanstalk instance, we recommend the following settings

- In Visual Studio, in the AWS Explorer window, click the “New Account Profile” button
- Enter the credentials saved from your IAM user
- Then right click on the project name in the solution explorer window, and select “Publish to AWS Elastic Beanstalk”
- Click “create new application”
- Create a URL for the application
- You will keep the instance type as t2.micro and will select “create new key pair” in the drop down list

- Next step is to deploy. When the environment status is green, your URL will be working!

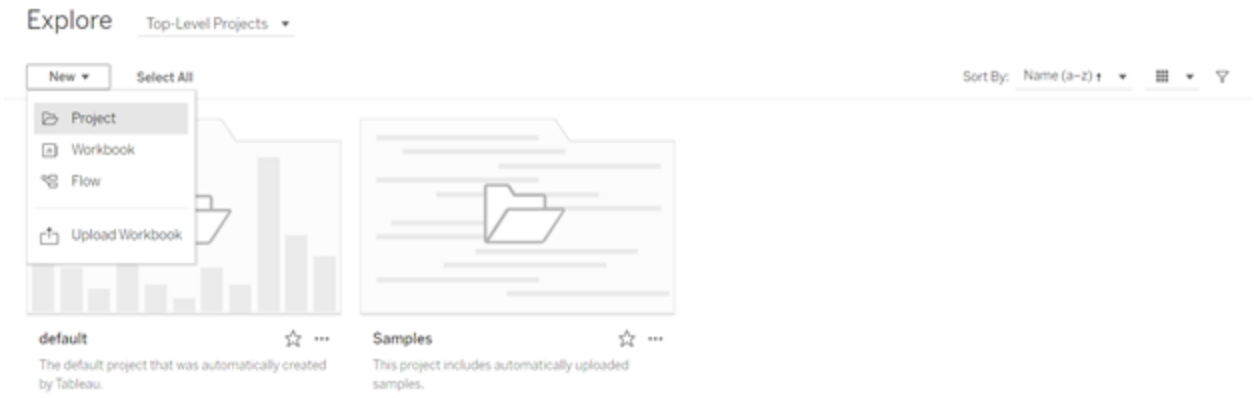
Tableau Documentation
From a cost sense, Tableau, the software tool used for generating the requested reports, charges $70 / month (plus tax) per Creator. This term “Creator” is coined to describe who is able to both create and manipulate the reports. We assume that this would be a shared account between Greg and Elizabeth, totaling one account being charged per month. Further, they charge $15 / month (plus tax) per Viewer. This is whoever needs to sign in and be able to view the report. Knowing that some of the reports show sensitive information, for example the “Gross Income Report”, we estimate that the number of viewers for Green Valley Auctions can range from anywhere between two and five knowing that there are other reports that are not sensitive information that may be viewed by various company employees.

Tableau Online Instructions:

1) Create Tableau Online Account

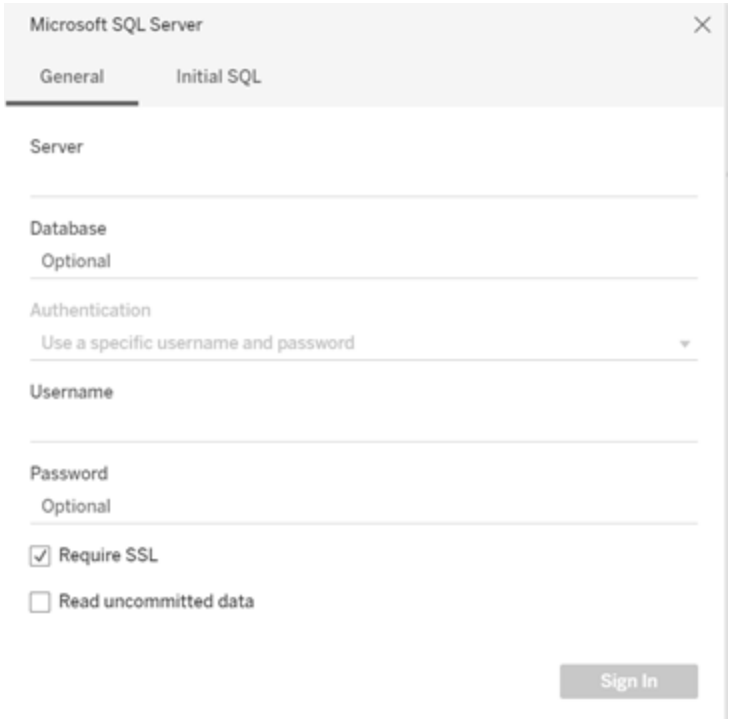
2) Once on the Tableau Online Dashboard, go to the Explore Page.

3) On the Explore Page, create a new Project.



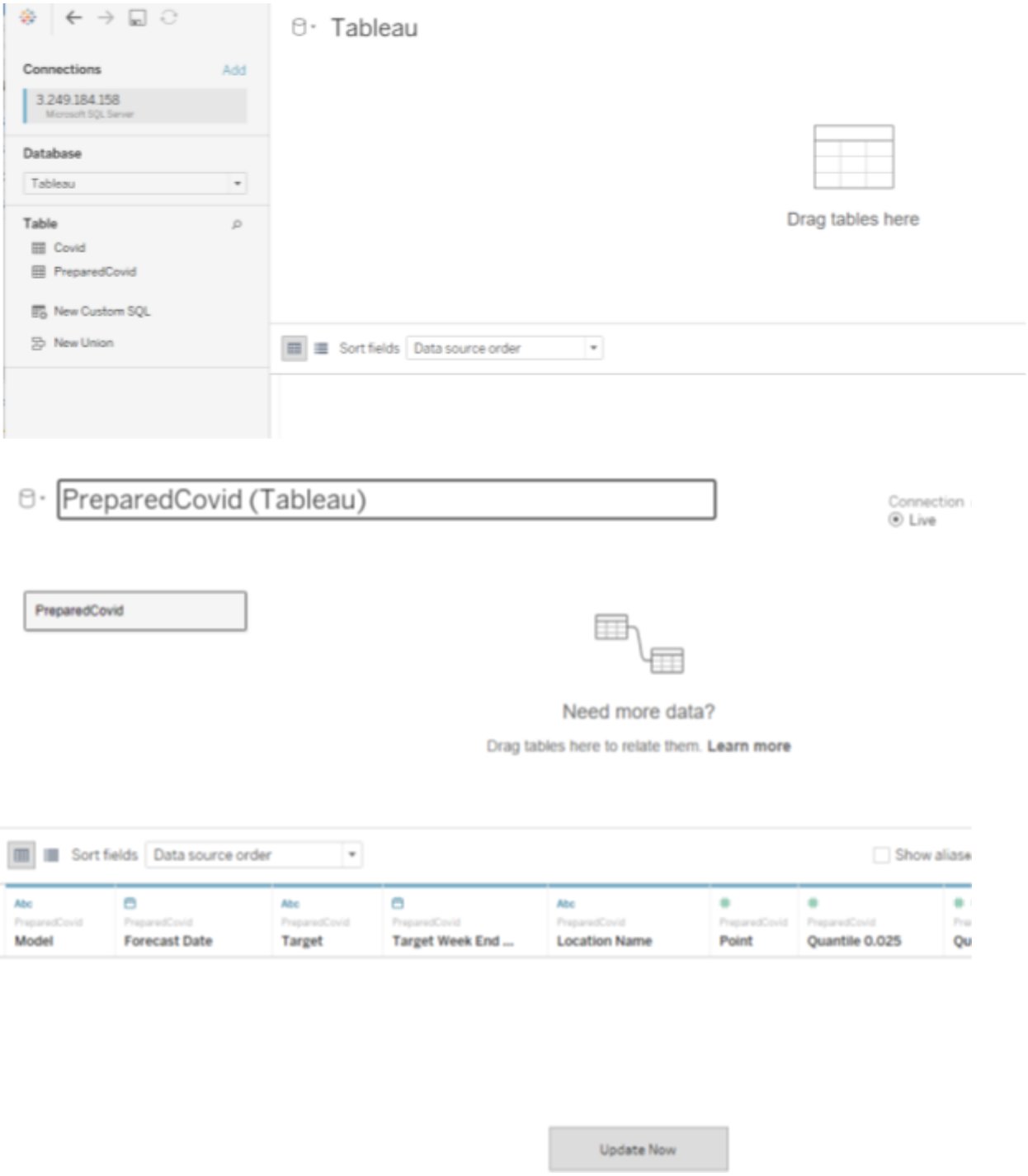
4) Click into your newly created Project and create a new Workbook.

5) In the "Connect to Data" pop-up, click the "Connectors" tab, then select Microsoft SQL Server.

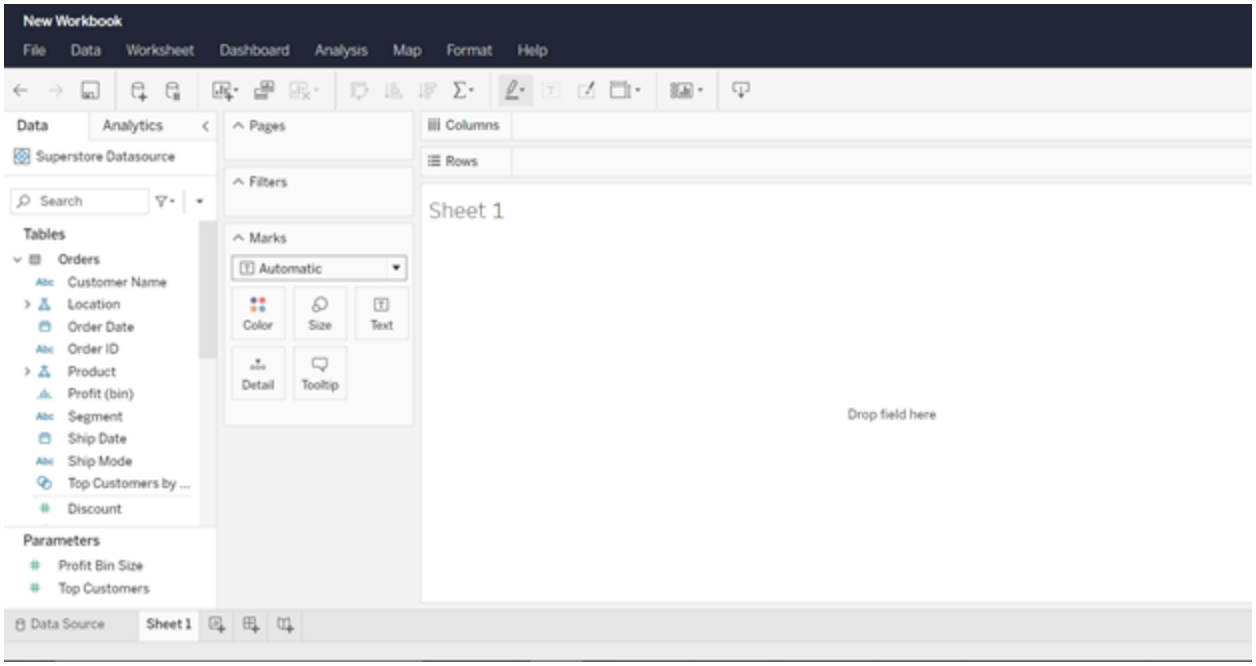


6) Enter the server name of the SQL Server, along with the username and password credentials of the database. Click, Sign In.

7) You are now connected to the database and can select data for visualizations by dragging and dropping tables in the Data Source tab.

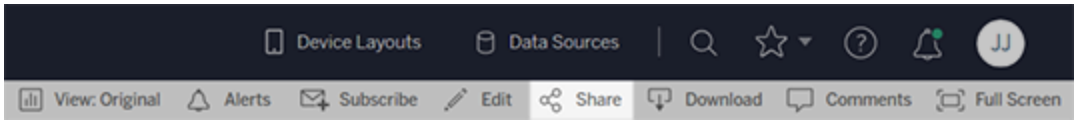


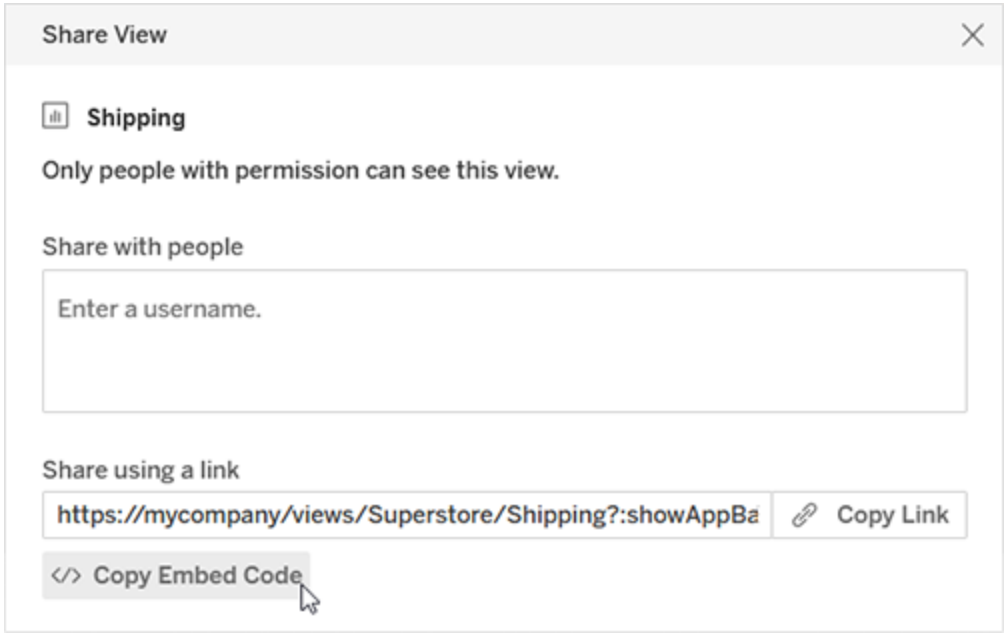
8) Once you have selected all your tables, select Sheet 1.



9) Drag and drop attributes to add them to a visualization and edit as you please.

10) Once you are done you can share the visualization using the share button on a Sheet's view page.





11) Click Copy Embed Code, then paste the code into the .aspx file of the webpage you wish to embed the view in.

```
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="Visualizations.aspx.cs" Inherits="ImageTest.Visualizations" %>

<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <script type='text/javascript' src='https://prod-useast-b.online.tableau.com/javascripts/api/viz_v1.js'></script>
        <div class='tableauPlaceholder' style='width: 1044px; height: 563px;'>
            <object class='tableauViz' width='1044' height='563' style='display: none;'>
                <param name='host_url' value='https%3A%2F%2Fprod-useast-b.online.tableau.com%2F' />
                <param name='embed_code_version' value='3' />
                <param name='site_root' value='&#47;t&#47;greenvalleyauctions' />
                <param name='name' value='GreenValleyAuctionsReports&#47;WhereArePeopleHearingAboutUs' />
                <param name='tabs' value='no' />
                <param name='toolbar' value='yes' />
                <param name='showAppBanner' value='false' />
                <param name='subscriptions' value='no' />
                <param name='showShareOptions' value='false' />
                <param name='customViews' value='no' />
                <param name='alerts' value='no'/>
                <param name='dataDetails' value='no' />
            </object>
        </div>
```

12) Your visualization can now be seen on the webpage. (It may ask you to sign in to your tableau online account in order to view visualization)