



# Iteration 1 - Subscription Manager

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# Team Member Info

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# Client Information

## Company



## People

Nathan Householder (nathan.housholder@trustasc.com)

Patrick Spencer (patrick.spencer@trustasc.com)

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## Mentor

Evan Knapke



# Mentor FeedBack

- Mid-teration
  - We need to work on getting the API from the client so that we have time to test our requests.
  - We probably do not need a database for this first iteration.
  - Make sure to prioritize the backend a bit more, to make sure it gets done.
- Before Client Meeting
  - Documentation looks good, but our section on our backend was out of date in development.md.
  - Push off small bugs that do not affect the client, for now.
  - Seems functional!
- Resulting Changes
  - Backend now only involves talking with third parties like Maxio.
  - Pushed back some planned work for the frontend to the next iteration, to focus on the core functionality of Bulk Signup.
  - Redid the backend section of development.md.



# Client Feedback

## Feedback:

- Overall everything was what they expected, if not more.
- Make sure we get the email address copied over as the license key, as this is something Moneytree does when creating a new subscription.
- Suggested to move edit button for the advisors so it wasn't next to the delete button.

## Resulting (Planned) Changes:

- Copy that email address as a license key, and update our backend to include it in the request to Maxio.
- Move the position of the edit button for easier user experience.



# Client Feedback

Results of client using the software:

- Client found the signup easy to use.
- The only issue was when editing the advisor information, the selected product was not populated, so it had to be re-selected.
- Ultimately, the client was able to create a couple of new advisors in Maxio.

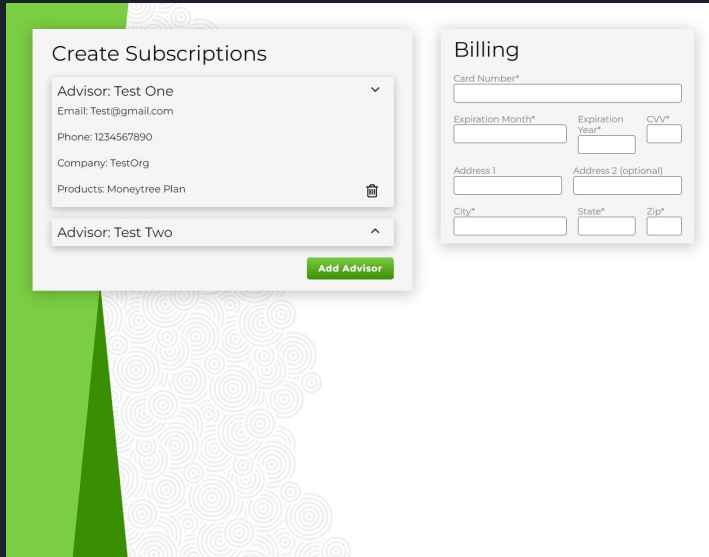


# Iteration One Features

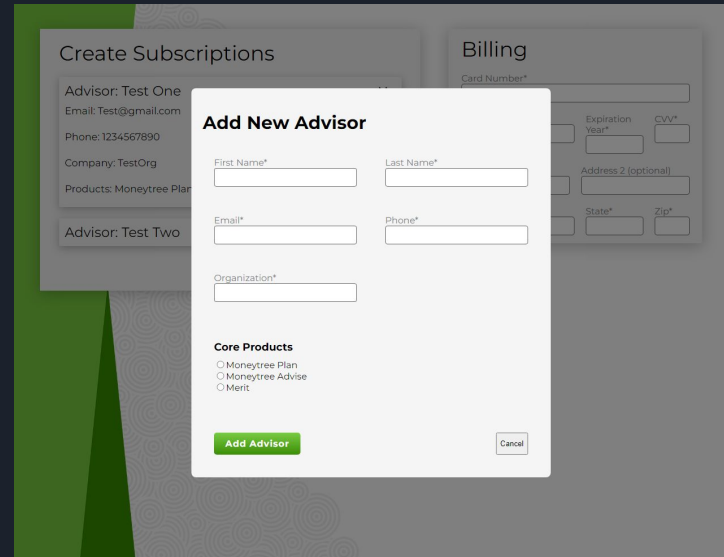
- Bulk Signup Form
- Front End Validators
- Backend Formatting
- Maxio Subscription Creation

# Bulk Signup Form

This includes the add advisor modal, edit advisor functionality, information dropdown, and billing information input



The screenshot displays the 'Bulk Signup Form' interface. On the left, the 'Create Subscriptions' section features a dropdown menu for 'Advisor: Test One' with a downward arrow, followed by fields for 'Email: Test@gmail.com', 'Phone: 1234567890', 'Company: TestOrg', and 'Products: Moneytree Plan'. Below this is another dropdown for 'Advisor: Test Two' with an upward arrow and a green 'Add Advisor' button. On the right, the 'Billing' section contains fields for 'Card Number\*', 'Expiration Month\*', 'Expiration Year\*', 'CVV\*', 'Address 1', 'Address 2 (optional)', 'City\*', 'State\*', and 'Zip\*'. The background is a light gray with a subtle pattern of concentric circles.



The screenshot displays the 'Bulk Signup Form' interface with the 'Add New Advisor' modal open. The modal has a title 'Add New Advisor' and fields for 'First Name\*', 'Last Name\*', 'Email\*', 'Phone\*', and 'Organization\*'. Below these fields is a section titled 'Core Products' with three radio button options: 'Moneytree Plan', 'Moneytree Advise', and 'Merit'. At the bottom of the modal are a green 'Add Advisor' button and a 'Cancel' button. The background is a light gray with a subtle pattern of concentric circles.



# Front End Validators

Validation for user information and billing information

Create Subscriptions

Billing

Advisor: Test One  
Email: Test@gmail.com  
Phone: 1234567890  
Company: TestOrg  
Products: Moneytree Plan  
Advisor: Test Two

Add New Advisor

First Name\*  
First name is required

Last Name\*  
Last name is required

Email\*  
Invalid email

Phone\*  
Phone number is required

Organization\*  
Organization is required

Invalid product combination

Core Products  
☐ Moneytree Plan  
☐ Moneytree Advise  
☐ Merit

Add Advisor

Cancel

Billing

Card Number\*  
Invalid credit card number

1

Expiration Month\*  
Required

Expiration Year\*  
Required

CVV\*  
Required

Address 1  
Required

Address 2 (optional)

City\*  
Required

State\*  
Required

Zip\*  
Required



# Backend Formatting

Formats information submitted from the front end

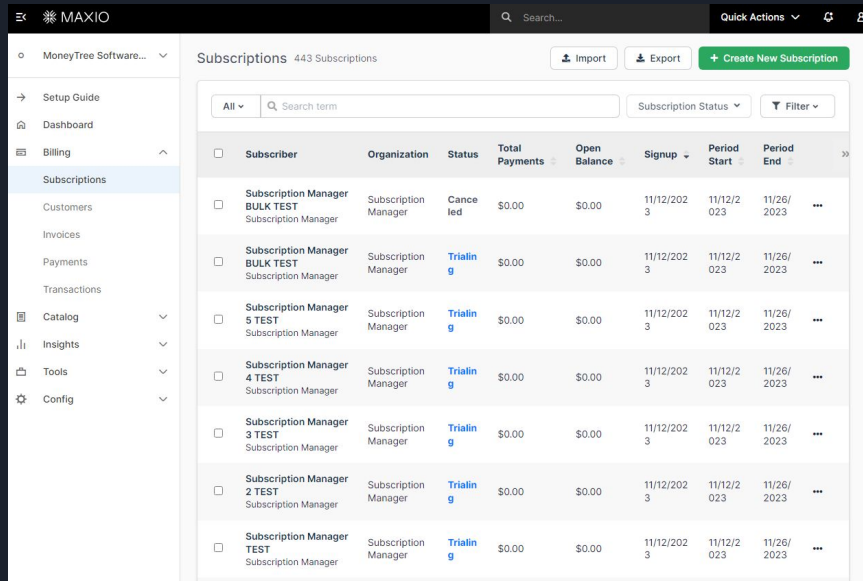
```
[HttpPost]
public async Task<ActionResult> Post([FromBody] SignupRequest request)
{
    var paymentInfo = request.paymentInfo;
    string cardType = GetCardType(paymentInfo.CardNumber);

    foreach (var advisor in request.Advisors)
    {
        var product = advisor.Products.First();

        var subscription = new SubscriptionModel()
        {
            ProductHandle = product.Handle,
            CustomerAttributes = new CustomerAttributes()
            {
                FirstName = advisor.first_name,
                LastName = advisor.last_name,
                Email = advisor.Email,
                Phone = advisor.Phone,
                Organization = advisor.Organization,
            },
            CreditCardAttributes = new CreditCardAttributes()
            {
                LastName = advisor.last_name,
                FirstName = advisor.first_name,
                FullNumber = paymentInfo.CardNumber,
                ExpirationYear = paymentInfo.ExpirationYear,
                ExpirationMonth = paymentInfo.ExpirationMonth,
                CardType = cardType,
                BillingZip = paymentInfo.Zip,
                BillingState = paymentInfo.State,
                //BillingCountry = "US",
                BillingCity = paymentInfo.City,
                BillingAddress2 = paymentInfo.SecondaryAddress,
                BillingAddress = paymentInfo.address,
            }
        };
        try
        {
            await _maxioService.CreateSubscription(subscription);
        }
        catch (Exception ex)
        {
            return BadRequest(ex.Message);
        }
    }
    return Ok();
}
```

# Maxio Subscription Creation

Takes submitted information and creates a request to Maxio to create a subscription for each advisor added in the form



The screenshot shows the MAXIO web application interface. The left sidebar contains navigation links: MoneyTree Software..., Setup Guide, Dashboard, Billing, Subscriptions (selected), Customers, Invoices, Payments, Transactions, Catalog, Insights, Tools, and Config. The main content area is titled 'Subscriptions 443 Subscriptions' and includes buttons for 'Import', 'Export', and '+ Create New Subscription'. Below these is a search bar and a 'Subscription Status' filter. The table lists several subscriptions, all with a status of 'Trialin g'.

<input type="checkbox"/>	Subscriber	Organization	Status	Total Payments	Open Balance	Signup	Period Start	Period End	
<input type="checkbox"/>	Subscription Manager BULK TEST Subscription Manager	Subscription Manager	Canceled	\$0.00	\$0.00	11/12/2023	11/12/2023	11/26/2023	...
<input type="checkbox"/>	Subscription Manager BULK TEST Subscription Manager	Subscription Manager	Trialin g	\$0.00	\$0.00	11/12/2023	11/12/2023	11/26/2023	...
<input type="checkbox"/>	Subscription Manager 5 TEST Subscription Manager	Subscription Manager	Trialin g	\$0.00	\$0.00	11/12/2023	11/12/2023	11/26/2023	...
<input type="checkbox"/>	Subscription Manager 4 TEST Subscription Manager	Subscription Manager	Trialin g	\$0.00	\$0.00	11/12/2023	11/12/2023	11/26/2023	...
<input type="checkbox"/>	Subscription Manager 3 TEST Subscription Manager	Subscription Manager	Trialin g	\$0.00	\$0.00	11/12/2023	11/12/2023	11/26/2023	...
<input type="checkbox"/>	Subscription Manager 2 TEST Subscription Manager	Subscription Manager	Trialin g	\$0.00	\$0.00	11/12/2023	11/12/2023	11/26/2023	...
<input type="checkbox"/>	Subscription Manager TEST Subscription Manager	Subscription Manager	Trialin g	\$0.00	\$0.00	11/12/2023	11/12/2023	11/26/2023	...

```
public class MaxioService : IMaxioService
{
    private readonly HttpClient _httpClient;
    private readonly ILogger<MaxioService> _logger;
    private readonly string _maxioUrl;
    private readonly string _apiKey;

    public MaxioService(HttpClient httpClient, IConfiguration configuration, ILogger<MaxioService> logger)
    {
        _httpClient = httpClient;
        _logger = logger;
        _maxioUrl = configuration.GetValue<string>("Maxio-Url");
        ?? throw new InvalidOperationException("URL must be set in the configuration.");
        _apiKey = configuration.GetValue<string>("Maxio-APIKey");
        ?? throw new InvalidOperationException("API key must be set in the configuration.");

        var baseAuth = Convert.ToBase64String(Encoding.ASCII.GetBytes($"{_apiKey}:"));
        _httpClient.DefaultRequestHeaders.Authorization = new AuthenticationHeaderValue("basic", baseAuth);
        _httpClient.BaseAddress = new Uri(_maxioUrl);
    }

    public async Task<string> CreateSubscription(TModel subscription) where TModel : SubscriptionModel
    {
        try
        {
            var jsonContent = JsonConvert.SerializeObject(new { subscription });
            var content = new StringContent(jsonContent, Encoding.UTF8, "application/json");
            var response = await _httpClient.PostAsync("subscriptions.json", content);
            response.EnsureSuccessStatusCode();

            var responseBody = await response.Content.ReadAsStringAsync();
            _logger.LogInformation($"Maxio API response: {responseBody}");
            return responseBody;
        }
        catch (HttpRequestException httpEx)
        {
            _logger.LogError($"An error occurred when calling Maxio API: {httpEx.Message}");
            throw;
        }
    }
}
```



# Planned Iteration 2 Features

- Add additional product support to Bulk Signup
  - It currently does not support Moneytree's additional products, only the core products.
- Implement communication between Bulk Signup and Hubspot, Moneytree's CRM tool.
- Start the subscription manager. An interface that will allow users to:
  - View information such as subscription details, user details, recent activity, etc.
  - Update details/information, specifically subscription and user details.
- We will also work on some Bulk Signup bugs.



# Retrospection


## Sacrifices:

- We sacrificed the correctness of the software: we left in some minor bugs, or just did quick fixes in order to get the software working.
- We sacrificed reusability: we could have made more reusable components or dictionaries.

## How we plan to approach the next iteration:

- Clean up Bulk Signup, such as bugs or small missing things.
- Focus on architecturally planning out the Subscription Manager Dashboard.
  - We ran into issues this iteration by making assumptions on the front end side, which did not accurately match what the backend wanted.
  - This resulted in changes to the fields on the front end, in order to match our API.

# Interesting Slide



```
$ start NEW_DAY
$ wake_up
$ start GET_OUT_OF_BED
$ start BREAKFAST
$ ERROR: cereals not found
$ ERROR: milk not found
$ skip_breakfast
$ start DRIVE_TO_WORK
$ start DRINK_COFFEE
$ start WORK
$ ALERT: deadline is today
$ start PANIC
$ init_anxiety
$ skip_dinner
$ DELIVERED PROJECT SUCCESSFULLY
```

```
// my life cycle
```

```
while ($me.isAlive())
{
    $me.eat();
    $me.sleep();
    $me.code();
}
```