

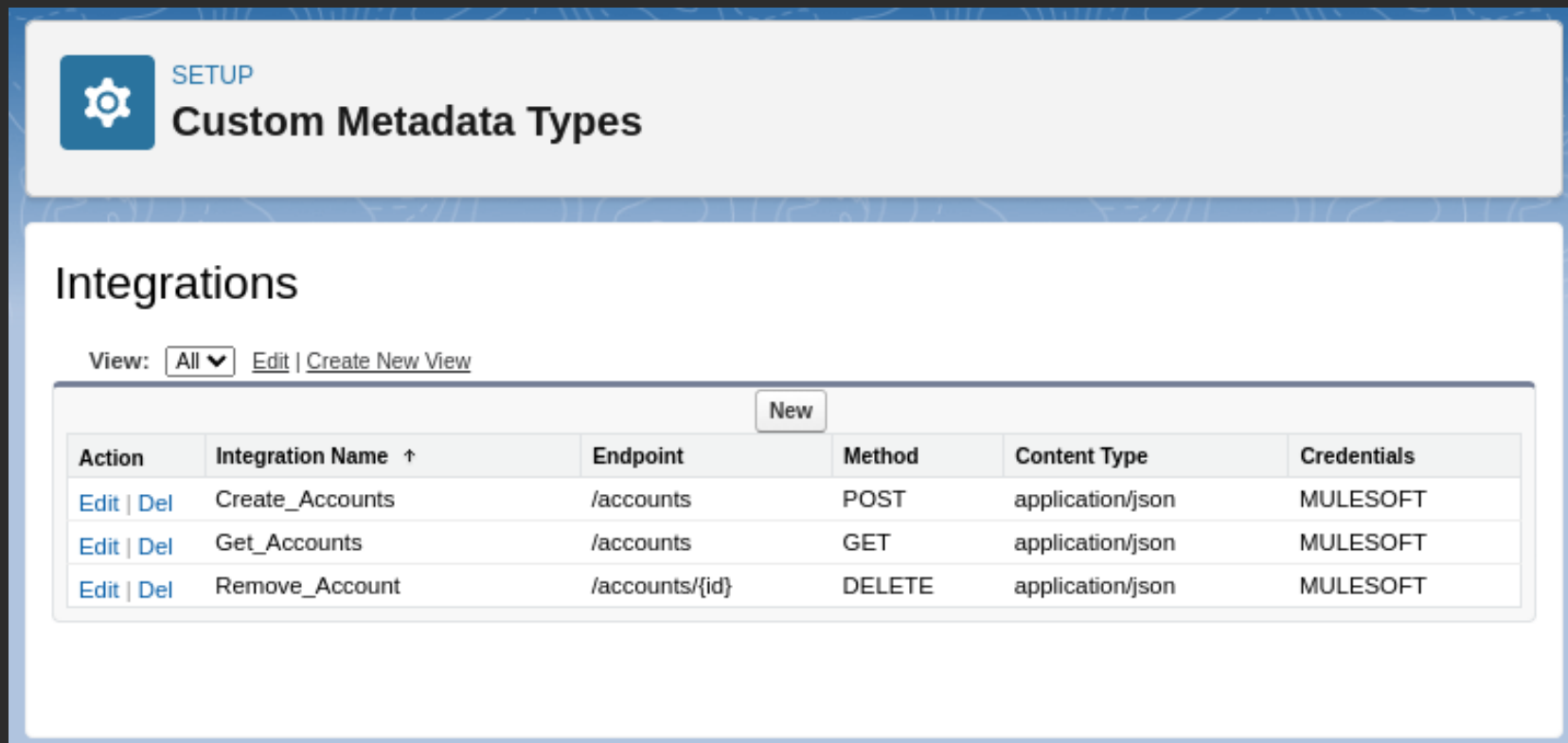
Organize your Integrations

Are you working in an environment that is heavily relying on integration? Do you struggle with a lot of Apex class integrations?

Introduce those easy changes to make your life easier!



Firstly, create simple metadata with all the endpoints:



SETUP
Custom Metadata Types

Integrations

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Action	Integration Name ↑	Endpoint	Method	Content Type	Credentials
Edit Del	Create_Accounts	/accounts	POST	application/json	MULESOFT
Edit Del	Get_Accounts	/accounts	GET	application/json	MULESOFT
Edit Del	Remove_Account	/accounts/{id}	DELETE	application/json	MULESOFT

In the metadata, we are saving **Endpoint-specific** information that won't change in any condition. Note the "Credentials" column, there we can store Named Credentials name to use in Apex class.



Now let's add some abstraction on top of the standard HTTP class:

```
public class HttpBuilder {
    private Integrations__mdt metadata;
    private Map<String, String> headers = new Map<String, String>();
    private Map<String, String> params = new Map<String, String>();
    private String body = null;
    private Integer timeout = 120000;

    public HttpBuilder(String metadata) {
        this.metadata = Integrations__mdt.getInstance(metadata);
    }

    public HttpBuilder buildHeader(String key, String value) {
        this.headers.put(key, value);
        return this;
    }

    public HttpBuilder buildParam(String key, String value) {
        this.params.put(key, value);
        return this;
    }

    public HttpBuilder buildBody(String body) {
        this.body = body;
        return this;
    }

    public HttpBuilder buildTimeout(Integer timeout) {
        this.timeout = timeout;
        return this;
    }
}
```



And finally, build the request:

```
public HttpRequest build() {
    HttpRequest request = new HttpRequest();

    request.setEndpoint(getAddress(metadata.Credentials__c, metadata.Endpoint__c, params));

    request.setMethod(metadata.Method__c);
    request.setHeader('Content-Type', metadata.Content_Type__c);

    for (String key : headers.keySet()) {
        request.setHeader(key, headers.get(key));
    }

    if (String.isNotBlank(body)) {
        request.setBody(body);
    }

    request.setTimeout(timeout);

    return request;
}

private String getAddress(String credentials, String endpoint, Map<String, String> params) {
    for (String key : params.keySet()) {
        endpoint += '&' + key + '=' + params.get(key);
    }


    endpoint = endpoint.replaceFirst('&', '?');
    return 'callout:' + credentials + '/' + endpoint;
}
```



Final result:



```
public static HttpResponse getStandardAccounts() {  
    HttpRequest request = new HttpRequest();  
    request.setEndpoint('callout:MULESOFT/get_accounts');  
    request.setMethod('GET');  
    request.setHeader('Content-Type', 'application/json');  
    request.setTimeout(60000);  
  
    return new Http().send(request);  
}
```



```
public static HttpResponse getBuilderAccounts() {  
    HttpRequest request = new HttpBuilder('Get_Accounts').buildTimeout(60000).build();  
  
    return new Http().send(request);  
}
```

By using Custom Metadata, we can create a Builder class which provides an abstraction over the standard HttpRequest class. In the builder we are covering often duplicated code, such as setting method, endpoint etc. Thanks to that, we can create HttpRequest in only one line!