

Steps to create an AVRO Schema and register it into SchemRegistry:

Creating the class file off of the AVRO Schema:

1. Create an avro_schema.avsc file for the desired schema.
2. Download **org.apache.avro:avro-tools:1.11.0.jar** and keep it in a folder.
3. Run the command:

```
java -jar <location-of-the-avro-tools-jar-file> compile -string schema <location-of-the-avro-schema-avsc-file> <location-of-the-folder-where-the-class-file-will-be-generated>
```

4. The command above will generate the class file based on the AVRO Schema. We must remember not to make any changes in the class file directly.

Creating a profile on the SchemaRegistry for our topic:

(Note: One must have installed both Kafka and SchemaRegistry and have established a connection between them. [Here](#) is a tutorial/docker-image for the Kafka+SchemaRegistry+UI)

Register schema without UI:

1. Launch Schema Registry
2. Create a subject for your avro schema. Hit the GET request method :
`http://localhost:8081/subjects/topic_name-value/versions/1`
The subject name follows a scheme like: topic_name-value
/versions/1 : indicates the version number of the subject. If version is 1, it means the subject is new and is being created.
3. To register your schema with the subject that u created, hit the POST request method:
`http://localhost:8081/subjects/topic_name-value`

The request body should contain the AVRO schema in the format below -

```
{
  "schema":
    "{
      \"type\": \"record\",
      \"name\": \"test\",
      \"fields\":
        [
          {
            \"type\": \"string\",
            \"name\": \"field1\"
          },
          {
            \"type\": \"com.acme.Referenced\",
            \"name\": \"int\"
          }
        ]
    }",
  "schemaType": "AVRO",
  "references": [
    {
      "name": "com.acme.Referenced",
      "subject": "childSubject",
      "version": 1
    }
  ]
}
```

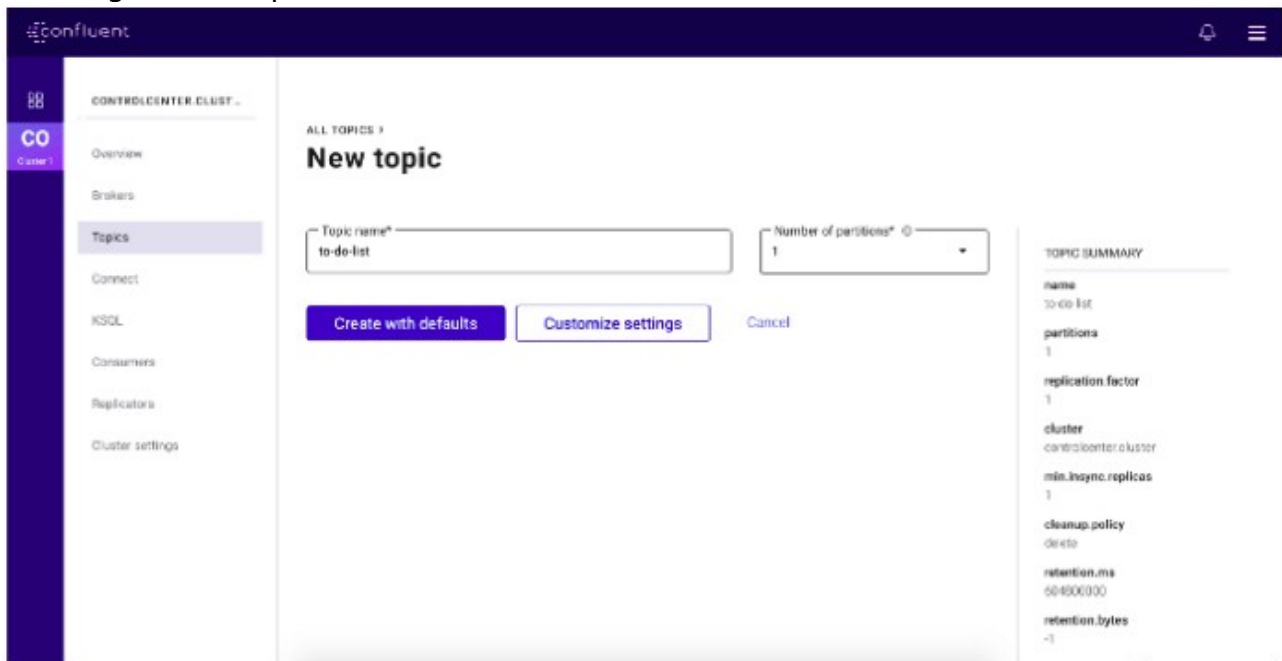
The above request will generate the following response: `{"id":1}`

4. To verify that the schema has been registered, hit the GET request API
`http://localhost:8081/subjects/topic_name-value/versions`

This will provide the following response : `[{"subject":"test-subject1","version":1}]`

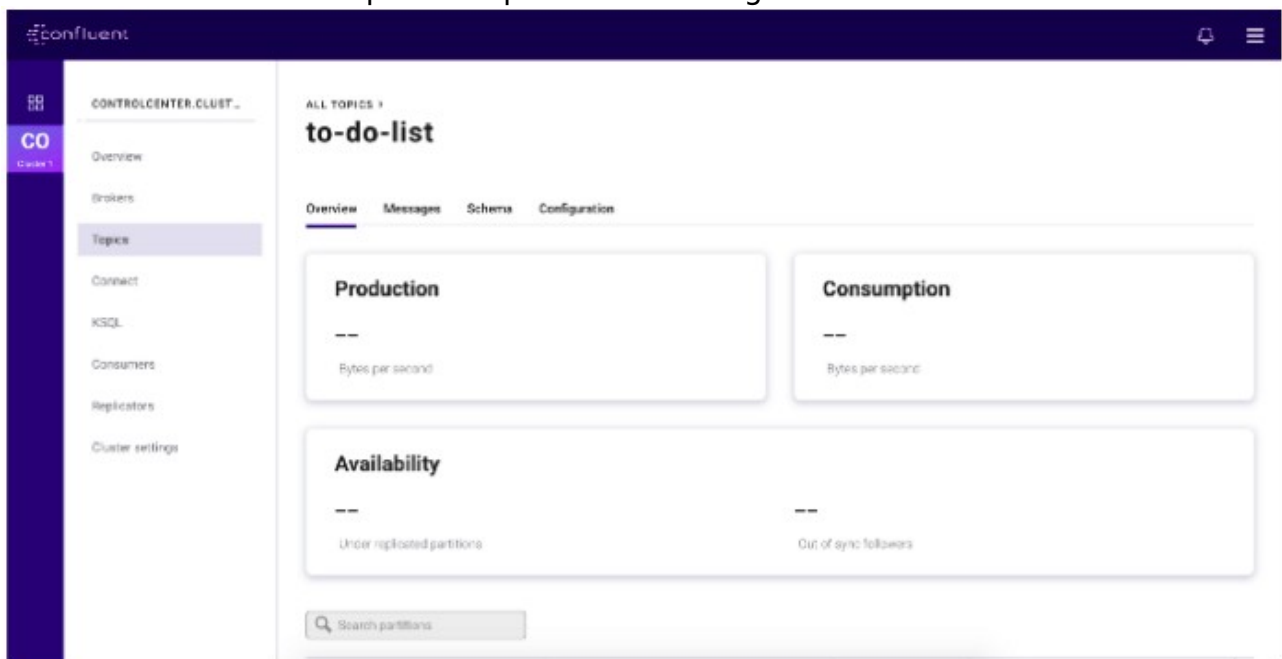
Register schema with UI:

1. Launch Kafka/SchemaRegistry UI, aka the Control Center UI.
2. Navigate to “Topic”:



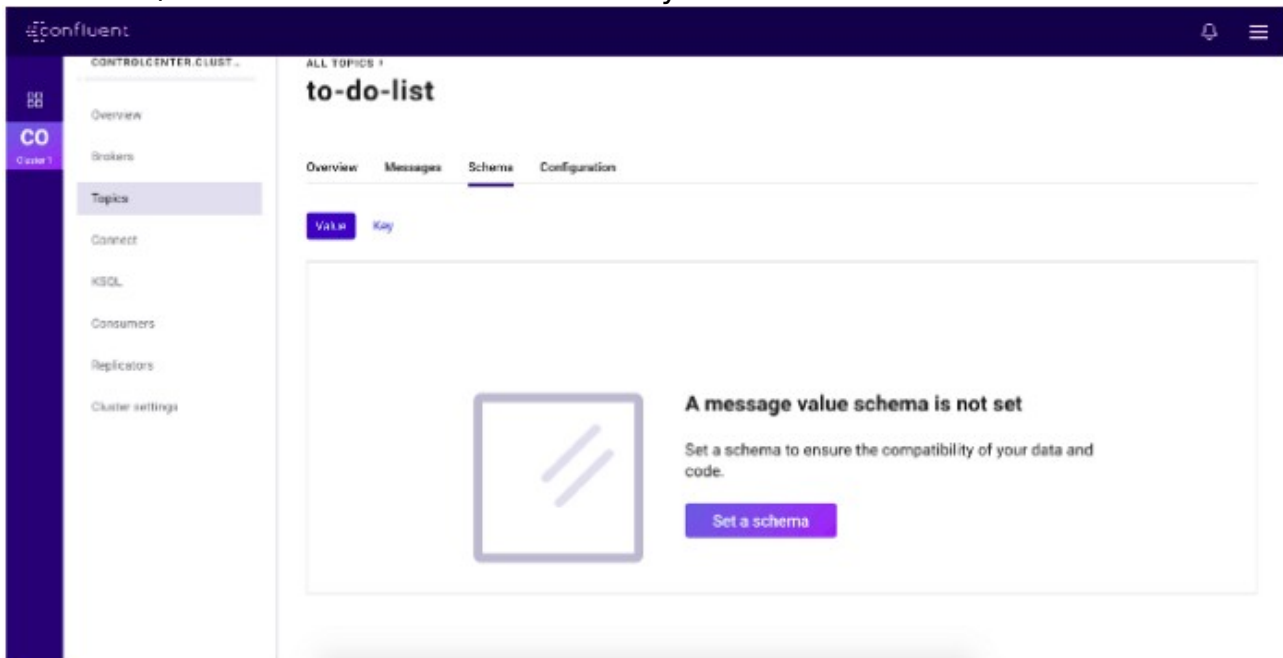
Name the topic and hit the “Create with defaults” button

This will create a new topic and open the following window:



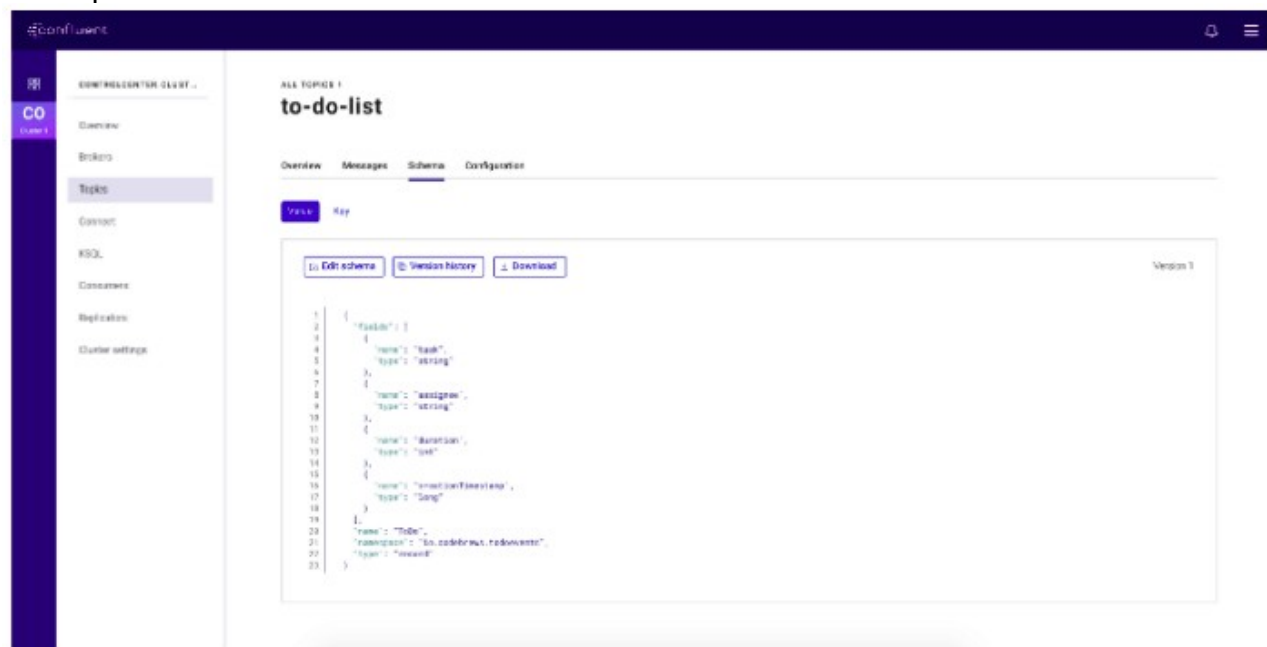
3. Navigate to “Schema” tab.

4. Click on/Select the value tab if not already selected:



5. Click on the “Set a schema” button.

6. Copy the contents from the AVRO schema .avsc file andpaste it into the window that opens:



This will automatically register the schema under the topic. The URL for the schema would be: <http://localhost:8081/subjects/asset.index.topic-value/versions>

For more details, visit this [link](#).