# Chapter10

# **POST** cf\_etf\_morningstar\_category\_list

http://localhost:9200/cf\_etf/\_search

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
"size": 0,
    "aggs":{
        "get_categories": { "terms": {"field": "morningstar_category", "size":100}}
}
```

#### **Example Request**

cf\_etf\_morningstar\_category\_list

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"aggs\":{
            \"get_categories\": { \"terms\": {\"field\": \"morningstar_category\", \"size\":100}}
    }
}
```

# **POST** cf\_etf\_Diversified\_Emerging\_Mkts\_ETFs

```
http://localhost:9200/cf_etf/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### BODY

```
"size": 0,
    "query":{"match": {"morningstar_category":"Diversified Emerging Mkts"}},
    "aggs" : {
        "LIST_ETFs": {
            "terms": {"field":"symbol", "size":16}
        }
    }
}
```

```
cf_etf_Diversified_Emerging_Mkts_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{\"match\": {\"morningstar_category\":\"Diversified Emerging Mkts\"}},
        \"aggs\" : {
            \"LIST_ETFs\": {
                \"terms\": {\"field\":\"symbol\", \"size\":16}
            }
        }
}
```

# POST cf\_etf\_hist\_prirce\_Diversified\_Emerging\_Mkts\_changes\_2018\_12\_26

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Diversified_Emerging_Mkts_changes_2018_12_26
```

### POST cf\_etf\_hist\_prirce\_Diversified\_Emerging\_Mkts\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Diversified_Emerging_Mkts_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
        \"bool\":{
            \"must\": {\"range\":{\"date\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
            {\"term\": {\"symbol\":\"dem\"}},
```

# POST cf\_etf\_hist\_prirce\_Diversified\_Emerging\_Mkts\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Diversified_Emerging_Mkts_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
            \"should\": [
                {\"term\": {\"symbol\":\"dem\"}},
```

# POST cf\_etf\_Large Blend\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
"size": 0,
    "query":{"match": {"morningstar_category":"Large Blend"}},
    "aggs" : {
        "LIST_ETFs": {
            "terms": {"field":"symbol", "size":14}
        }
    }
}
```

```
cf_etf_Large Blend_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
    \"size\": 0,
    \"query\":{\"match\": {\"morningstar_category\":\"Large Blend\"}},
    \"aggs\" : {
        \"LIST_ETFs\": {
            \"terms\": {\"field\":\"symbol\", \"size\":14}
        }
    }
}
```

# POST cf\_etf\_hist\_prirce\_Large Blend\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Large Blend_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
               \"should\": [
                {\"term\": {\"symbol\":\"eps\"}},
```

# POST cf\_etf\_hist\_prirce\_Large Blend\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Large Blend_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
               \"should\": [
                {\"term\": {\"symbol\":\"eps\"}},
```

# **POST** cf\_etf\_Miscellaneous Region\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
{
    "size": 0,
    "query":{"match": {"morningstar_category":"Miscellaneous Region"}},
    "aggs" : {
        "DEM_ETFs": {
            "terms": {"field":"symbol", "size":14}
        }
    }
}
```

```
cf_etf_Miscellaneous Region_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{\"match\": {\"morningstar_category\":\"Miscellaneous Region\"}},
        \"aggs\" : {
            \"DEM_ETFs\": {
                \"terms\": {\"field\":\"symbol\", \"size\":14}
            }
        }
    }
}
```

# POST cf\_etf\_hist\_prirce\_Miscellaneous Region\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Miscellaneous Region_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 1,
        \"query\":{
        \"bool\":{
        \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
        \"\"term\": {\"symbol\":\"agt\"}},
```

# POST cf\_etf\_hist\_prirce\_Miscellaneous Region\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Miscellaneous Region_changes_weekly
```

# POST cf\_etf\_Europe Stock\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
"size": 0,
    "query":{"match": {"morningstar_category":"Europe Stock"}},
    "aggs" : {
        "DEM_ETFs": {
             "terms": {"field":"symbol", "size":11}
        }
    }
}
```

```
cf_etf_Europe Stock_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
      \"size\": 0,
      \"query\":{\"match\": {\"morningstar_category\":\"Europe Stock\"}},
    \"aggs\" : {
      \"DEM_ETFs\": {
        \"terms\": {\"field\":\"symbol\", \"size\":11}
      }
    }
}
```

# POST cf\_etf\_hist\_prirce\_Europe Stock\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Europe Stock_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
        \"bool\":{
        \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
        {\"term\": {\"symbol\":\"ddez\"}},
```

# **POST** cf\_etf\_hist\_prirce\_Europe Stock\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Europe Stock_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
               \"should\": [
                {\"term\": {\"symbol\":\"ddez\"}},
```

# POST cf\_etf\_Technology\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
"size": 0,
    "query":{"match": {"morningstar_category":"Technology"}},
    "aggs" : {
        "DEM_ETFs": {
            "terms": {"field":"symbol", "size":11}
        }
    }
}
```

```
cf_etf_Technology_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
      \"size\": 0,
      \"query\":{\"match\": {\"morningstar_category\":\"Technology\"}},
    \"aggs\" : {
      \"DEM_ETFs\": {
        \"terms\": {\"field\":\"symbol\", \"size\":11}
      }
    }
}
```

# POST cf\_etf\_hist\_prirce\_Technology\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Technology_changes_daily
```

# POST cf\_etf\_hist\_prirce\_Technology\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Technology_changes_weekly
```

# **POST** cf\_etf\_Foreign Large Blend\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
"size": 0,
    "query":{"match": {"morningstar_category":"Foreign Large Blend"}},
    "aggs" : {
        "DEM_ETFs": {
            "terms": {"field":"symbol", "size":11}
        }
    }
}
```

```
cf_etf_Foreign Large Blend_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{\"match\": {\"morningstar_category\":\"Foreign Large Blend\"}},
        \"aggs\" : {
            \"DEM_ETFs\": {
                \"terms\": {\"field\":\"symbol\", \"size\":11}
            }
        }
}
```

# POST cf\_etf\_hist\_prirce\_Foreign Large Blend\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Foreign Large Blend_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
        \"bool\":{
        \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
        \"\"term\": {\"symbol\":\"efax\"}},
```

### POST cf\_etf\_hist\_prirce\_Foreign Large Blend\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
cf_etf_hist_prirce_Foreign Large Blend_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
            \"should\": [
                {\"term\": {\"symbol\":\"efax\"}},
```

# **POST** cf\_etf\_China Region\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
{
    "size": 0,
    "query":{"match": {"morningstar_category":"China Region"}},
    "aggs" : {
        "DEM_ETFs": {
            "terms": {"field":"symbol"}
        }
    }
}
```

```
cf_etf_China Region_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
    \"size\": 0,
    \"query\":{\"match\": {\"morningstar_category\":\"China Region\"}},
    \"aggs\" : {
        \"DEM_ETFs\": {
        \"terms\": {\"field\":\"symbol\"}
        }
    }
}
```

# POST cf\_etf\_hist\_prirce\_China Region\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_China Region_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
        \"bool\":{
            \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
            \"term\": {\"symbol\":\"cnya\"}},
```

# **POST** cf\_etf\_hist\_prirce\_China Region\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_China Region_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
               \"should\": [
                {\"term\": {\"symbol\":\"cnya\"}},
```

# POST cf\_etf\_High Yield Bond\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
{
    "size": 0,
    "query":{"match": {"morningstar_category":"High Yield Bond"}},
    "aggs" : {
        "DEM_ETFs": {
            "terms": {"field":"symbol"}
        }
    }
}
```

```
cf_etf_High Yield Bond_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
    \"size\": 0,
    \"query\":{\"match\": {\"morningstar_category\":\"High Yield Bond\"}},
    \"aggs\" : {
        \"DEM_ETFs\": {
            \"terms\": {\"field\":\"symbol\"}
        }
    }
}
```

# POST cf\_etf\_hist\_prirce\_High Yield Bond\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
cf_etf_hist_prirce_High Yield Bond_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
        \"bool\":{
        \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
        \"\"term\": {\"symbol\":\"faln\"}},
```

# POST cf\_etf\_hist\_prirce\_High Yield Bond\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_High Yield Bond_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
            \"should\": [
                {\"term\": {\"symbol\":\"faln\"}},
```

# **POST** cf\_etf\_Ultrashort Bond\_ETFs

```
http://localhost:9200/cf_etf/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
"size": 0,
    "query":{"match": {"morningstar_category":"Ultrashort Bond"}},
    "aggs" : {
        "DEM_ETFs": {
            "terms": {"field":"symbol"}
        }
    }
}
```

#### **Example Request**

cf\_etf\_Ultrashort Bond\_ETFs

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{\"match\": {\"morningstar_category\":\"Ultrashort Bond\"}},
        \"aggs\" : {
            \"DEM_ETFs\": {
                \"terms\": {\"field\":\"symbol\"}
        }
    }
}
```

# POST cf\_etf\_hist\_prirce\_Ultrashort Bond\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Ultrashort Bond_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
        \"bool\":{
        \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
        {\"term\": {\"symbol\":\"bil\"}},
```

# POST cf\_etf\_hist\_prirce\_Ultrashort Bond\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Ultrashort Bond_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
            \"should\": [
                {\"term\": {\"symbol\":\"bil\"}},
```

### POST cf\_etf\_Allocation--30% to 50% Equity\_ETFs

```
http://localhost:9200/cf_etf/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
"size": 0,
    "query":{"match": {"morningstar_category":"Allocation--30% to 50% Equity"}},
    "aggs" : {
        "DEM_ETFs": {
            "terms": {"field":"symbol"}
        }
    }
}
```

```
cf_etf_Allocation--30% to 50% Equity_ETFs
```

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
    --header "Content-Type: application/json" \
    --data "{
    \"size\": 0,
    \"query\":{\"match\": {\"morningstar_category\":\"Allocation--30% to 50% Equity\"}},
    \"aggs\" : {
        \"DEM_ETFs\": {
            \"terms\": {\"field\":\"symbol\"}
        }
    }
}
```

# POST cf\_etf\_hist\_prirce\_Allocation--30% to 50% Equity\_changes\_daily

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Allocation--30% to 50% Equity_changes_daily
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
        \"bool\":{
            \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
        \"should\": [
            \"term\": {\"symbol\":\"aok\"}},
```

# POST cf\_etf\_hist\_prirce\_Allocation--30% to 50% Equity\_changes\_weekly

```
http://localhost:9200/cf_etf_hist_price/_search
```

#### **HEADERS**

#### **Content-Type**

application/json

#### **BODY**

```
cf_etf_hist_prirce_Allocation--30% to 50% Equity_changes_weekly
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
    --header "Content-Type: application/json" \
    --data "{
        \"size\": 0,
        \"query\":{
            \"bool\":{
                \"must\": {\"range\":{\"date\":{\"gte\":\"2018-12-26\", \"lte\":\"2019-03-25\"}}},
               \"should\": [
                {\"term\": {\"symbol\":\"aok\"}},
```

# **POST** cf\_etf\_hist\_prirce\_Bollinger\_band\_dem

```
http://localhost:9200/cf_etf_hist_price/_search
```

**HEADERS** 

#### **Content-Type**

application/json

**BODY** 

```
cf_etf_hist_prirce_Bollinger_band_dem
```