
Chapter8

GET IEX_ACWF_chart_3m

```
https://api.iextrading.com/1.0/stock/ACWF/chart/3m
```

Example Request

```
IEX_ACWF_chart_3m
```

```
curl --location --request GET "https://api.iextrading.com/1.0/stock/ACWF/chart/3m"
```

GET cf_etf_historical_prices_mapping

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

Example Request

```
cf_etf_historical_prices_mapping
```

```
curl --location --request GET "http://localhost:9200/cf_etf_hist_price/"
```

GET cf_etf_historical_prices document_count

```
http://localhost:9200/cf_etf_hist_price/_count
```

Example Request

```
cf_etf_historical_prices document_count
```

```
curl --location --request GET "http://localhost:9200/cf_etf_hist_price/_count"
```

POST cf_etf_hist_price_dcoument_search_all

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

HEADERS

Content-Type

```
application/json
```

BODY

```
{
  "size":61,
  "query":{"match":{"symbol":"ACWF"}}
}
```

Example Request

```
cf_etf_hist_price_dcoument_search_all
```

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
  --header "Content-Type: application/json" \
  --data "{
    \"size\":61,
    \"query\":{\"match\":{\"symbol\":\"ACWF\"}}
  }"
```

POST cf_etf_hist_price_matrix_stats

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

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  "size": 0,
  "query": { "match": { "symbol": "ACWF"}},
  "aggs": {
    "statistics": {
      "matrix_stats": {
        "fields": ["volume", "changePercent"]
      }
    }
  }
}
```

Example Request

cf_etf_hist_price_matrix_stats

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
--header "Content-Type: application/json" \
--header "accept: application/json" \
--data "{  \"size\": 0,
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},
  \"aggs\": {
    \"statistics\": {
      \"matrix_stats\": {
        \"fields\": [\"volume\", \"changePercent\"]
      }
    }
  }
}"
```

GET count_cf_etf_hist_price_index_dcoument

http://localhost:9200/cf_etf_hist_price/_count

Example Request

```
count_cf_etf_hist_price_index_dcoument
```

```
curl --location --request GET "http://localhost:9200/cf_etf_hist_price/_count"
```

DEL delete_cf_etf_hist_price_index

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

Example Request

```
delete_cf_etf_hist_price_index
```

```
curl --location --request DELETE "http://localhost:9200/cf_etf_hist_price/"
```

POST cf_etf_hist_price_avg_acwf_change

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

HEADERS

Content-Type

```
application/json
```

Accept

```
application/json
```

BODY

```
{  "size": 0,
  "query": { "match": { "symbol": "ACWF" }},
  "aggs": { "acwf_avg_change_price": { "avg": { "field": "change" }}}
}
```

Example Request

cf_etf_hist_price_avg_acwf_change

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
--header "Content-Type: application/json" \
--header "Accept: application/json" \
--data "{  \"size\": 0,
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},
  \"aggs\": {\"acwf_avg_change_price\": {\"avg\": { \"field\": \"change\" }}}
}"
```

POST cf_etf_hist_price_weight_avg_acwf_change

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{
  "size": 0,
  "query": { "match": { "symbol": "ACWF"}},
  "aggs": {
    "acwf_avg_change_with_vol_weight": {
      "weighted_avg": {
        "value": {"field": "change"}, "weight": {"field": "volume"}
      }
    }
  }
}
```

- Example Request

cf_etf_hist_price_weight_avg_acwf_change

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
--header "Content-Type: application/json" \
--header "accept: application/json" \
--data "{
  \"size\": 0,
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},
  \"aggs\": {
    \"acwf_avg_change_with_vol_weight\": {
      \"weighted_avg\": {
        \"value\": {\"field\": \"change\"}, \"weight\": {\"field\": \"volume\"}
```

POST cf_etf_morningstart_categories_cardinality

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{
  \"size\": 0,
  \"aggs\": {
    \"number_of_morningstar_category\": {
      \"cardinality\": {\"field\": \"morningstar_category\"}
    }
  }
}
```

Example Request

cf_etf_morningstart_categories_cardinality

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

POST cf_etf_morningstart_categories_value_count

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "aggs": {  
    "num_of_etfs_have_market_cap": {  
      "value_count": {"field": "market_cap"}  
    }  
  }  
}
```

Example Request

cf_etf_morningstart_categories_value_count

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"aggs\": {  
      \"num_of_etfs_have_market_cap\": {  
        \"value_count\": {\"field\": \"market_cap\"}  
      }  
    }  
  }"
```

POST cf_etf_dividend_acwf_amount_sum

http://localhost:9200/cf_etf_dividend_denormalize/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF" } },  
  "aggs": {  
    "sum_amount": {  
      "sum": { "field": "amount" }  
    }  
  }  
}
```

Example Request

cf_etf_dividend_acwf_amount_sum


```
curl --location --request POST "http://localhost:9200/cf_etf_dividend_denormalize/_search" \
--header "Content-Type: application/json" \
--data "{
  \"size\": 0,
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},
  \"aggs\": {
    \"sum_amount\": {
      \"sum\": {\"field\": \"amount\"}
    }
  }
}
```

POST cf_etf_hist_price_acwf_minimum_open_price

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{
  "size": 0,
  "query": { "match": { "symbol": "ACWF"}},
  "aggs": {
    "minimum_open_price": {
      "min": { "field": "open" }
    }
  }
}
```

Example Request

cf_etf_hist_price_acwf_minimum_open_price

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
--header "Content-Type: application/json" \
--header "accept: application/json" \
--data "{
  \"size\": 0,
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},
  \"aggs\": {
    \"minimum_open_price\": {
      \"min\": {\"field\": \"open\"}
    }
  }
}
```

POST cf_etf_hist_price_acwf_maximum_open_price

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{
  "size": 0,
  "query": { "match": { "symbol": "ACWF"}},
  "aggs": {
    "maximum_open_price": {
      "max": {"field": "open"}
    }
  }
}
```

Example Request

cf_etf_hist_price_acwf_maximum_open_price

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"maximum_open_price\": {  
      \"max\": {\"field\": \"open\"}  
    }  
  }  
}"
```

POST cf_etf_hist_price_acwf_stats_open_price

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs": {  
    "stats_open_price": {  
      "stats": {"field": "open"}  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_acwf_stats_open_price

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"stats_open_price\": {  
      \"stats\": {\"field\": \"open\"}  
    }  
  }  
}"
```

POST cf_etf_hist_price_acwf_extended_stats_open_price

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs": {  
    "extend_stats_open_price": {  
      "extended_stats": {"field": "open"}  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_acwf_extended_stats_open_price

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": { \"match\": { \"symbol\": \"ACWF\" } },  
    \"aggs\": {  
      \"extend_stats_open_price\": {  
        \"extended_stats\": { \"field\": \"open\" }  
      }  
    }  
  }"
```

POST cf_etf_top_hit_morningstar_category

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "aggs": {  
    "category_top_hits": {  
      "terms": {  
        "field": "morningstar_category",  
        "size": 5  
      },  
      "aggs": {  
        "category_top_hits": {  
          "terms": {  
            "field": "morningstar_category",  
            "size": 5  
          }  
        }  
      }  
    }  
  }  
}
```

Example Request

cf_etf_top_hit_morningstar_category

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"aggs\": {  
      \"category_top_hits\": {  
        \"terms\": {  
          \"field\": \"morningstar_category\",  
          \"size\": 5
```

POST cf_etf_hist_price_percentiles_open_price

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"} },  
  "aggs": {  
    "open_price_percentiles": {  
      "percentiles": { "field": "open" }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_percentiles_open_price

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
--header "Content-Type: application/json" \
--header "accept: application/json" \
--data "{
  \"size\": 0,
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},
  \"aggs\": {
    \"open_price_percentiles\": {
      \"percentiles\": {\"field\":\"open\"}
    }
  }
}
```

POST cf_etf_hist_price_percentile_rank_open_price

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{
  "size": 0,
  "query": { "match": { "symbol": "ACWF"}},
  "aggs": {
    "open_price_percentile_rank": {
      "percentile_ranks": {"field":"open", "values":28.5}
    }
  }
}
```

Example Request

cf_etf_hist_price_percentile_rank_open_price

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"open_price_percentile_rank\": {  
        \"percentile_ranks\": {\"field\": \"open\", \"values\": 28.5}  
      }  
    }  
  }"
```

POST cf_etf_hist_price_mad_acwf_percetChange

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs": {  
    "mad_change_percent": {  
      "median_absolute_deviation": {"field": "changePercent" }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_mad_acwf_percetChange


```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \
--header "Content-Type: application/json" \
--header "accept: application/json" \
--data "{
  \"size\": 0,
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},
  \"aggs\": {
    \"mad_change_percent\": {
      \"median_absolute_deviation\": {\"field\": \"changePercent\" }
    }
  }
}
```

POST cf_etf_hist_price_scripted_metric

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{
  "size": 0,
  "query": { "match": { "symbol": "ACWF"}},
  "aggs": {
    "highest_cp_cot_ratio": {
      "scripted_metric": {
        "init_script": "state.price_diff = new ArrayList()",
        "map_script": "double value = doc.changeOverTime.value==0 ? 0 : doc.changePercent",
        "combine_script": "return Collections.max(state.price_diff)",
        "reduce_script": ""
      }
    }
  }
}
```

Example Request

cf_etf_hist_price_scripted_metric

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"highest_cp_cot_ratio\": {  
      \"scripted_metric\": {
```

POST cf_etf_hist_price_acwf_histogram

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs": {  
    "acwf_histogram": {  
      "histogram": {  
        "field": "open",  
        "interval": 1,  
        "extended_bounds": { "min":24, "max":30}  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_acwf_histogram

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"acwf_histogram\": {  
      \"histogram\": {  
        \"field\": \"open\",
```

POST cf_etf_hist_price_acwf_date_histogram

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs": {  
    "monthly_trading_days": {  
      "date_histogram": {  
        "field": "date",  
        "interval": "month",  
        "format": "yyyy-MM-dd"  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_acwf_date_histogram

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
  \"aggs\":{  
    \"monthly_trading_days\": {  
      \"date_histogram\":{  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_auto_interval_date_histogram

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs":{  
    "monthly_trading_days": {  
      "auto_date_histogram":{  
        "field": "date",  
        "buckets": "4",  
        "format": "yyyy-MM-dd"  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_acwf_auto_interval_date_histogram

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_trading_days\": {  
      \"auto_date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_ranges

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs": {  
    "monthly_trading_days": {  
      "range": {  
        "field": "date",  
        "format": "yyyy-MM-dd",  
        "ranges": [ { "from": "2018-12-01"}, { "to": "2019-04-01"}, { "from": "2019-01-01", "to": "
```

Example Request

cf_etf_hist_price_acwf_ranges

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_trading_days\": {  
        \"range\": {
```

POST cf_etf_hist_price_acwf_date_ranges

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "match": { "symbol": "ACWF"}},  
  "aggs": {  
    "monthly_trading_days": {  
      "date_range": {  
        "field": "date",  
        "format": "yyyy-MM-dd",  
        "ranges": [ { "from": "2018-12-01"}, { "to": "2019-04-01"}, { "from": "2019-01-01", "to": "
```

Example Request

cf_etf_hist_price_acwf_date_ranges

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": { \"match\": { \"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_trading_days\": {  
        \"date_range\": {
```

POST cf_etf_hist_price_filter_sub_aggs

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"aggs\": {  
    \"avg_changePercent_at_date\": {  
      \"filter\": { \"term\": { \"date\": \"2019-02-15\"}},  
      \"aggs\": { \"avg_changePercent\": { \"avg\": { \"field\": \"changePercent\"}}}  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_filter_sub_aggs

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"aggs\":{  
    \"avg_changePercent_at_date\": {  
      \"filter\":{\"term\": {\"date\": \"2019-02-15\"}},  
      \"aggs\": {\"avg_changePercent\": {\"avg\": {\"field\": \"changePercent\"}}}  
    }  
  }  
}
```

POST cf_etf_hist_price_filters

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": { "term": { "date": "2019-02-15" } },  
  "aggs": {  
    "filters_avg_changePercent": {  
      "filters": {  
        "filters": {  
          "less_than_avg": { "range": { "changePercent": { "lt": 0.60385 } } },  
          "greater_than_avg": { "range": { "changePercent": { "gte": 0.60385 } } }  
        }  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_filters


```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": { \"term\": {\"date\": \"2019-02-15\"}},  
    \"aggs\": {  
      \"filters_avg_changePercent\": {  
        \"filters\": {  
          \"filters\": {
```

POST cf_etf_hist_price_terms_rating

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"aggs\": {  
    \"terms_on_rating\": {  
      \"terms\": {  
        \"field\": \"rating\"  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_terms_rating

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

POST cf_etf_hist_price_significant_terms

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query":{"match":{"rating":5}},  
  "aggs":{  
    "rating_vs_morningstar":{  
      "significant_terms":{  
        "field":"morningstar_category"  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_significant_terms

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"rating\": 5}},  
    \"aggs\": {  
      \"rating_vs_morningstar\": {  
        \"significant_terms\": {  
          \"field\": \"morningstar_category\"
```

POST cf_etf_hist_price_significant_text

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": {\"match\": {\"rating\": 5}},  
  \"aggs\": {  
    \"rating_vs_fund_name\": {  
      \"significant_text\": {  
        \"field\": \"fund_name\",  
        \"exclude\": [\"us\", \"p\", \"s\", \"cap\"],  
        \"size\": 5  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_significant_text

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"rating\": 5}},  
    \"aggs\": {  
      \"rating_vs_fund_name\": {  
        \"significant_text\": {  
          \"field\": \"fund_name\",
```

POST cf_etf_hist_price_sampler

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  "size": 0,  
  "aggs": {  
    "sampling": {  
      "sampler": { "shard_size": 150 },  
      "aggs": {  
        "significant_terms_category": {  
          "significant_terms": {  
            "field": "category"  
          }  
        }  
      }  
    }  
  }  
}
```

Example Request

cf_etf_hist_price_sampler

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
--header "Content-Type: application/json" \  
--data "{  
  \"size\": 0,  
  \"aggs\": {  
    \"sampling\": {  
      \"sampler\": { \"shard_size\":150},  
      \"aggs\": {  
        \"significant_terms_category\": {  
          \"significant_terms\": {
```

POST cf_etf_hist_price_diversified_sampler_10

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  "size": 0,  
  "aggs": {  
    "sampling": {  
      "diversified_sampler": {"field": "family", "shard_size": 150, "max_docs_per_value" : 1  
      "aggs": {  
        "significant_terms_category": {  
          "significant_terms": {  
            "field": "category"
```

Example Request

cf_etf_hist_price_diversified_sampler_10

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
  --header "Content-Type: application/json" \  
  --data "{  
    \"size\": 0,  
    \"aggs\": {  
      \"sampling\": {  
        \"diversified_sampler\": {\"field\": \"family\", \"shard_size\":150, \"max_docs_per_value\" : 6  
        \"aggs\": {  
          \"significant_terms_category\": {  
            \"significant_terms\": {  
              \"field\": \"category\"
```

POST cf_etf_hist_price_diverified_sampler_61

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  \"size\": 0,  
  \"aggs\": {  
    \"sampling\": {  
      \"diversified_sampler\": {\"field\": \"family\", \"shard_size\":150, \"max_docs_per_value\" : 6  
      \"aggs\": {  
        \"significant_terms_category\": {  
          \"significant_terms\": {  
            \"field\": \"category\"
```

Example Request

cf_etf_hist_price_diverified_sampler_61

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
  --header "Content-Type: application/json" \  
  --data "{  
    \"size\": 0,  
    \"aggs\": {  
      \"sampling\": {  
        \"diversified_sampler\": {\"field\":\"family\", \"shard_size\":150, \"max_docs_per_\  
        \"aggs\": {  
          \"significant_terms_category\": {
```

POST cf_etf_dividend_nested_amount

http://localhost:9200/cf_etf_dividend_nested/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  "size":0,  
  "aggs": {  
    "per_symbol":{  
      "terms": {"field":"symbol", "size":3},  
      "aggs":{  
        "total_dividend": {  
          "nested": {  
            "path":"announcement"  
          },  
        },  
      },  
    },  
  },  
}
```

Example Request

cf_etf_dividend_nested_amount

```
curl --location --request POST "http://localhost:9200/cf_etf_dividend_nested/_search" \
--header "Content-Type: application/json" \
--data "{
  \"size\":0,
  \"aggs\": {
    \"per_symbol\":{
      \"terms\": {\"field\":\"symbol\", \"size\":3},
      \"aggs\":{
        \"total_dividend\": {
          \"nested\": {
```

POST cf_etf_dividend_reverse_nested

http://localhost:9200/cf_etf_dividend_nested/_search

HEADERS

Content-Type

application/json

BODY

```
{
  "size":0,
  "aggs": {
    "etf_category_distribution_on_dividend_type":{
      "nested": {
        "path":"announcement"
      },
      "aggs":{
        "by_dividend_type": {
          "terms": {"field":"announcement.type"},
```

Example Request

cf_etf_dividend_reverse_nested


```
curl --location --request POST "http://localhost:9200/cf_etf_dividend_nested/_search" \
--header "Content-Type: application/json" \
--data "{
  \"size\":0,
  \"aggs\": {
    \"etf_category_distribution_on_dividend_type\":{
      \"nested\": {
        \"path\": \"announcement\"
      },
      \"aggs\": {
```

POST cf_etf_global

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

BODY

```
{
  \"size\":0,
  \"query\":{\"prefix\": {\"family\":\"iShares\"}},
  \"aggs\": {
    \"ishares_avg_rating\": {\"avg\": {\"field\":\"rating\"}},
    \"overall_avg_rating\": {\"global\":{}, \"aggs\":{\"global_avg_rating\":{\"avg\":{\"field\":\"rating\"}
  }
}
```

Example Request

cf_etf_global

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
--header "Content-Type: application/json" \  
--data "{  
  \"size\":0,  
  \"query\":{\"prefix\":{\"family\":\"iShares\"}},  
  \"aggs\":{\"  
    \"ishares_avg_rating\":{\"avg\":{\"field\":\"rating\"}},  
    \"overall_avg_rating\":{\"global\":{}, \"aggs\":{\"global_avg_rating\":{\"avg\":{\"field\"
```

POST cf_etf_missing_category

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  "size":0,  
  "aggs": {  
    "not_rated_count": {  
      "missing": {"field":"rating"}  
    }  
  }  
}
```

Example Request

cf_etf_missing_category

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

POST cf_etf_hist_price_composite

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

BODY

```
{
  "query": {"query_string": {"query": "rating:[4 TO 5]"}},
  "size": 0,
  "aggs": {
    "multi_sources": {
      "composite": {
        "sources": [
          {"family": {"terms": {"field": "family"}}},
          {"rating": {"terms": {"field": "rating"}}}
        ]
      }
    }
  }
}
```

Example Request

cf_etf_hist_price_composite

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \
--header "Content-Type: application/json" \
--data "{
  \"query\": {\"query_string\": {\"query\": \"rating:[4 TO 5]\"}},
  \"size\": 0,
  \"aggs\": {
    \"multi_sources\": {
      \"composite\": {
        \"sources\": [
          {\"family\": {\"terms\": {\"field\": \"family\"}}},

```

POST cf_etf_hist_price_adjacent_matrix

http://localhost:9200/cf_etf/_search

HEADERS

Content-Type

application/json

BODY

```
{
  "size": 0,
  "aggs": {
    "adjacency_filters": {
      "adjacency_matrix": {
        "filters": {
          "rating_gte_5": {"range":{"rating":{"gte":5}}},
          "family_prefix_A": {"prefix":{"family":"iShares"}}
        }
      }
    }
  }
}
```

Example Request

cf_etf_hist_price_adjacent_matrix

```
curl --location --request POST "http://localhost:9200/cf_etf/_search" \  
--header "Content-Type: application/json" \  
--data "{  
  \"size\": 0,  
  \"aggs\": {  
    \"adjacency_filters\": {  
      \"adjacency_matrix\": {  
        \"filters\": {  
          \"rating_gte_5\": {\"range\": {\"rating\": {\"gte\": 5}}},  
          \"family_prefix_A\": {\"prefix\": {\"family\": \"iShares\"}}  
        }  
      }  
    }  
  }  
}
```

POST cf_etf_dividend_join_parent_aggs

localhost:9200/cf_etf_dividend_join/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  \"size\": 0,  
  \"aggs\": {  
    \"cf_etf\": {  
      \"parent\": {  
        \"type\": \"cf_etf\"  
      },  
      \"aggs\": {  
        \"count\": {\"value_count\": {\"field\": \"symbol\"}}  
      }  
    }  
  }  
}
```

Example Request

cf_etf_dividend_join_parent_aggs

```
curl --location --request POST "localhost:9200/cf_etf_dividend_join/_search" \
--header "Content-Type: application/json" \
--data "{
  \"size\":0,
  \"aggs\": {
    \"cf_etf\":{
      \"parent\": {
        \"type\": \"cf_etf\"
      },
      \"aggs\": {
```

POST cf_etf_dividend_join_children_aggs

localhost:9200/cf_etf_dividend_join/_search

HEADERS

Content-Type

application/json

BODY

```
{
  "size":0,
  "aggs": {
    "dividend":{
      "children": {
        "type": "dividend"
      },
      "aggs": {
        "total_dividend":{"sum":{"field":"amount"}}
      }
    }
  }
}
```

Example Request

cf_etf_dividend_join_children_aggs

```
curl --location --request POST "localhost:9200/cf_etf_dividend_join/_search" \
--header "Content-Type: application/json" \
--data "{
  \"size\":0,
  \"aggs\": {
    \"dividend\":{
      \"children\": {
        \"type\": \"dividend\"
      },
    },
    \"aggs\": {
```

POST cf_etf_hist_price_acwf_avg_monthly_close

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{
  "size": 0,
  "query":{"match": {"symbol":"ACWF"}}},
  "aggs":{
    "monthly_avg_close": {
      "date_histogram":{
        "field": "date",
        "interval": "month",
        "format": "yyyy-MM-dd"
      },
```

Example Request

cf_etf_hist_price_acwf_avg_monthly_close

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_avg_close\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_max_monthly_avg_close

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_avg_close\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_max_monthly_avg_close


```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_avg_close\": {  
        \"date_histogram\": {  
          \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_min_monthly_avg_close

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_avg_close\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_min_monthly_avg_close

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_avg_close\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_sum_monthly_change

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_sum_monthly_change

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_statistics_monthly_change

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_statistics_monthly_change

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_extended_statistics_monthly_change

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_extended_statistics_monthly_change

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_change\": {  
        \"date_histogram\": {  
          \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_percentiles_weekly_change

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"weekly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_percentiles_weekly_change

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"weekly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_cumulative_sum

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_cumulative_sum

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_change\": {  
        \"date_histogram\": {  
          \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_derivative

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },  
    },  
  },  
}
```

Example Request

cf_etf_hist_price_acwf_derivative

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_bucket_script

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },  
    },  
  },  
}
```

Example Request

cf_etf_hist_price_bucket_script


```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_bucket_selector

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"negative_monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"month\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_bucket_selector

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"negative_monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_dividend_nested_amount bucket_sort

http://localhost:9200/cf_etf_dividend_nested/_search

HEADERS

Content-Type

application/json

BODY

```
{  
  \"size\": 0,  
  \"aggs\": {  
    \"per_symbol\": {  
      \"terms\": {\"field\": \"symbol\"},  
      \"aggs\": {  
        \"total_dividend\": {  
          \"nested\": {  
            \"path\": \"announcement\"  
          },  
        },  
      },  
    },  
  },  
}
```

Example Request

cf_etf_dividend_nested_amount bucket_sort

```
curl --location --request POST "http://localhost:9200/cf_etf_dividend_nested/_search" \
--header "Content-Type: application/json" \
--data "{
  \"size\":0,
  \"aggs\": {
    \"per_symbol\":{
      \"terms\": {\"field\": \"symbol\"},
      \"aggs\": {
        \"total_dividend\": {
          \"nested\": {
```

POST cf_etf_hist_price_acwf_serial_diff

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

BODY

```
{
  "size": 0,
  "query": {"match": {"symbol": "ACWF"}},
  "aggs": {
    "serial_diff_weekly_avg_change": {
      "date_histogram": {
        "field": "date",
        "interval": "week",
        "format": "yyyy-MM-dd"
      },
    },
  },
}
```

Example Request

cf_etf_hist_price_acwf_serial_diff

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"serial_diff_weekly_avg_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",
```

POST cf_etf_hist_price_acwf_moving_avg_simple

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_avg_simple

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_change\": {  
        \"date_histogram\": {  
          \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_avg_linear

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_avg_linear

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_avg_ewma

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_avg_ewma

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_change\": {  
        \"date_histogram\": {  
          \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_avg_holt_linear

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_avg_holt_linear

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_change\": {  
        \"date_histogram\": {  
          \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_avg_holt_winters

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"
```

Example Request

cf_etf_hist_price_acwf_moving_avg_holt_winters


```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_change\": {  
        \"date_histogram\": {
```

POST cf_etf_hist_price_acwf_moving_fn_max

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },  
    },  
  },  
}
```

Example Request

cf_etf_hist_price_acwf_moving_fn_max

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_fn_min

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_fn_min

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
  --header "Content-Type: application/json" \  
  --header "accept: application/json" \  
  --data "{  
    \"size\": 0,  
    \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
    \"aggs\": {  
      \"monthly_change\": {  
        \"date_histogram\": {  
          \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_fn_sum

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_fn_sum

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_fn_unweightedAvg

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_fn_unweightedAvg

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_fn_linearweightedAvg

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_fn_linearweightedAvg

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_fn_stdDev

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"
```

Example Request

cf_etf_hist_price_acwf_moving_fn_stdDev

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {
```

POST cf_etf_hist_price_acwf_moving_fn_ewma

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  "size": 0,  
  "query": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },  
    },  
  },  
}
```

Example Request

cf_etf_hist_price_acwf_moving_fn_ewma

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_fn_holt

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"  
      },
```

Example Request

cf_etf_hist_price_acwf_moving_fn_holt


```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",
```

POST cf_etf_hist_price_acwf_moving_fn_holtwinters

http://localhost:9200/cf_etf_hist_price/_search

HEADERS

Content-Type

application/json

accept

application/json

BODY

```
{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {  
        \"field\": \"date\",  
        \"interval\": \"week\",  
        \"format\": \"yyyy-MM-dd\"
```

Example Request

cf_etf_hist_price_acwf_moving_fn_holtwinters

```
curl --location --request POST "http://localhost:9200/cf_etf_hist_price/_search" \  
--header "Content-Type: application/json" \  
--header "accept: application/json" \  
--data "{  
  \"size\": 0,  
  \"query\": {\"match\": {\"symbol\": \"ACWF\"}},  
  \"aggs\": {  
    \"monthly_change\": {  
      \"date_histogram\": {
```