CXOptimize - API user guide

2018

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## Overview

This user manual provides quick description of all the API in the CXOptimize, their use cases and sample request/response for each API. These APIs are used to define, create and update the application configuration and push the corresponding statistics in to elastic search and influx DB.

## API Details

### compareResources:

Compares the resources metrics of the given transaction between runs.

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | ProjectName, Scenario, ClientName, AnalysisType, TransactionName |
| Optional parameters | RunID, BaselineEnd, BaselineStart, CurrentStart, CurrentEnd, CurrentSampleValue, BaselineSampleValue |
| Sample Request | http://localhost:9000/compareResources?ProjectName=indeeduk&ClientName=indeed&Scenario=SearchJobs&AnalysisType=XXXX&TransactionName=yyyy |
| Sample Response |  |

### createConfig:

Creates configuration details for the given ‘ProjectName’, ‘Scenario’ and ‘ClientName’ combination.

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL Parameters | ProjectName, Scenario, ClientName |
| Optional parameters | beaconIP, updateRunID, isNativeApp, isLoadTest |
| Sample Request - URL | http://localhost:9000/createConfig? ProjectName=xx& Scenario=xx& ClientName=xx |
| Sample Response | **Success Response:**  *{*  *"Status": "Success"*  *}*  **Failed Response:**  *{*  *"Status" : "Failed",*  *"Error" : "ProjectName, ClientName, Scenario cannot be blank"*  *}* |

### getAllTransactionSamples:

Returns performance of all the transaction samples within a given run. If Run ID is not specified, latest test run will be taken for analysis.

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | ProjectName, Scenario, ClientName, AnalysisType, TransactionName |
| Optional parameters | RunID, BaselineEnd, BaselineStart, CurrentStart, CurrentEnd |
| Sample Request | http://localhost:9000/getAllTransactionSamples?ProjectName=indeeduk&ClientName=indeed&Scenario=SearchJobs&AnalysisType=XXXX&TransactionName=yyyy |
| Sample Response |  |

### getCBAnalysis:

Returns Cross browser analysis data for the transaction. Can be used only if a particular transaction is executed multiple times across different user agents (browsers).

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | ProjectName, Scenario, ClientName, AnalysisType, TransactionName |
| Optional parameters | RunID, BaselineStart, BaselineEnd, CurrentStart, CurrentEnd |
| Sample Request | http://localhost:9000/getCBAnalysis?ProjectName=indeeduk&ClientName=indeed&Scenario=SearchJobs&AnalysisType=XXXX&TransactionName=yyyy |
| Sample Response |  |

### getCIComplianceStatus:

Gives the compliance status of the continuous integration build base on pre0defined set of rules.

|  |  |
| --- | --- |
| Method | POST |
| Mandatory Request Fields | ProjectName, Scenario, ClientName, AnalysisType |
| Optional Request Fields | CurrentRun, BaselineRun, totalScoreThreshold, excludeTransactionsList, compareDeviationThreshold, compareComplianceThreshold, individualScoreThreshold, indvScoreComplianceThreshold, indvScoreComplianceThreshold |
| Sample Request - URL | http://localhost:9000/getCIComplianceStatus |
| Request Body | *{*  *"ClientName": "nativeapp",*  *"ProjectName": "perfinsight",*  *"ScenarioName": "test",*  *"AnalysisType":"Run",*  *"CurrentRun": "2", if not given latest RunID will be used*  *"BaselineRun": "1", if not given system defined BaselineRunID will be used*  *“totalScoreThreshold” : “80”*  *“excludeTransactionsList”: “Txn1,Txn2”*  *“compareDeviationThreshold” : “75”*  *“compareComplianceThreshold” :”80”*  *“individualScoreThreshold” : “70”*  *“indvScoreComplianceThreshold” :”90”*  *“indvScoreComplianceThreshold” :”85”*  *}* |
| Sample Response | **Success Response:**  *{*  *"totalScoreCompliance": false,*  *"totalScoreComplianceReason": "Total Score :79.0 less than configured threshold 80",*  *"compareComplianceStatus": false,*  *"compareCompliancePercentage": 0,*  *"compareComplianceReason" :[ -- this will be there only if "compareComplianceStatus": false*  *{*  *"UnitedAirlines\_01\_LaunchPage": "Compare deviation of 20% which is greater than allowed 5%"*  *}*  *],*  *"indvScoreComplianceThreshold": false,*  *"indvScoreCompliancePercentage": 0,*  *"indvScoreComplianceReason" : [ -- this will be there only if ""indvScoreComplianceThreshold": false*  *{*  *"UnitedAirlines\_01\_LaunchPage": "Score of 79 which is less than allowed 80"*  *}*  *],*    *"slaComplianceThreshold": false,*  *"slaComplianceCompliancePercentage": 0,*  *"slaComplianceThresholdReason": [-- this will be there only if "" slaComplianceThreshold ": false*  *{*  *"UnitedAirlines\_01\_LaunchPage": "Response Time 5815 ms which is greater than SLA 5000 ms"*  *}*  *]*  *}* |

### getClientDetails:

Returns the client and project details assigned to a particular user.

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | UserName |
| Sample Request | http://localhost:9000/getClientDetails?UserName=XXXX |
| Sample Response |  |

### getConfig:

Returns the configuration details for specified ‘ProjectName’, ‘Scenario’ and ‘ClientName’ combination.

* Case 1: If the configuration is not available, it creates a new configuration with default values and sends the response.
* Case 2: If the configuration is available, it checks whether the current timestamp is greater than ‘runTimestamp’ and ‘runInterval’ added together.
  + If the value is higher, it increments the ‘RunID’ value by 1 and sends the response.
  + Else it returns the current configuration details.
* Case 3: If UpdateRunID parameter (true/false) is passed, it updates the RunID value by 1 if true else returns the current value. Default value is false.
* Case 4: If BeaconIP parameter is passed, it updates the beacon url in the config.

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | ProjectName, Scenario, ClientName |
| Optional parameters | UpdateRunID, BeaconIP, isNativeApp, isLoadTest |
| Sample Request | http://localhost:9000/getConfig?ProjectName=sample&Scenario=sample&ClientName=sample |
| Sample Response | *{*  *"isDOMNeeded": true*  *"ProjectName": "sample"*  *"isYSlowEnabled": false*  *"imageResourceExtension": ".jpg, .png, .gif"*  *"smtpPort": 23*  *"ccEmailAddrList": ""*  *"excludedGeneriRules": ""*  *"ySlowServiceUrl": ""*  *"pageSpeedInsightServiceUrl": ""*  *"iswptEnabled": false*  *"beaconUrl": "http://CENPERF-WC-11P.cable.comcast.com:9000/"*  *"ClientName": "sample"*  *"isAsyncCollectionEnabled": false*  *"creationTimestamp": 1458328926375*  *"defaultTransactionThreshold": 5000*  *"runInterval": 60000*  *"fromEmailAddrList": ""*  *"Release": ""*  *"runTimestamp": 1458328912046*  *"excludedCBTRules": ""*  *"isResourceAPIEnbaled": true*  *"toEmailAddrList": ""*  *"dataStoreUrl": "http://cenperf-wc-11p.cable.comcast.com:9200/sample"*  *"isPageSpeedInsightEnabled": false*  *"Scenario": "sample"*  *"excludedMobileRules": ""*  *"smtpHost": ""*  *"BuildNumber": ""*  *"RunID": 5*  *"staticResourceExtension": ".css,.js"*  *"excludedComparisonRules": ""*  *"isNavigationAPIEnabled": true*  *}* |

### getHAR:

Returns HAR for the given ‘ProjectName’, ‘Scenario’, ‘ClientName’,’ AnalysisType’ and ‘transactionName’ parameter combination sent in the request.

* Case 1: If RunID is passed, it returns the transactional details of the particular test run else it returns value from latest test.
* Case 2: If sampleValue is passed, it returns the transactional values with decimal format corresponding to the sample value passed.

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | ProjectName, Scenario, ClientName, AnalysisType, TransactionName |
| Optional parameters | sampleValue,RunID, BaselineStart, BaselineEnd, CurrentStart, CurrentEnd |
| Sample Request | http://localhost:9000/getHAR?ProjectName=indeeduk&ClientName=indeed&Scenario=SearchJobs&transactionName=Indeed\_01\_Launch&AnalysisType=XXX |
| Sample Response |  |

### getSummaryReport:

Returns summary report for the given ‘ProjectName’, ‘Scenario’,’ AnalysisType’ and ‘ClientName’ parameter combination sent in the request.

* Case 1: If RunID parameter is passed, it compares the corresponding test with the baseline and returns the response; else it returns the comparison report for the latest test.
* Case 2: If BaselineRunID parameter is passed, it assumes the corresponding test run as baseline for comparison.
* Case 3: If Override parameter (true/false) is passed, it updates the RunID results as Baseline test results (if true).

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | ProjectName, Scenario, ClientName, AnalysisType |
| Optional parameters | RunID, BaselineRunID ,Override, BaselineStart, BaselineEnd, CurrentStart, CurrentEnd |
| Sample Request | http://localhost:9000/getSummaryReport?ProjectName=indeeduk&ClientName=indeed&Scenario=SearchJobs&AnalysisType=XXXX |
| Sample Response |  |

### checkHealth:

Returns the health of the API.

|  |  |
| --- | --- |
| Method | GET |
| Mandatory URL parameters | - |
| Sample Request | http://localhost:9000/checkHealth |
| Sample Response | *{*  *"status": "UP",*  *"diskSpace": {*  *"status": "UP",*  *"total": 6341328896,*  *"free": 3429507072,*  *"threshold": 10485760*  *}*  *}* |

### insertBoomerangStats:

Inserts the Boomerang statistics for a test under the given ‘ProjectName’, ‘Scenario’ and ‘ClientName’ combination. If the influx DB parameter is set on in the application properties, the statistics will be inserted in to the DB as well. Else data will only be inserted in to the elastic search and the corresponding response will be sent back.

|  |  |
| --- | --- |
| Method | POST |
| Sample Request - URL | http://localhost:9000/insertBoomerangStats |
| Request Body | Collector generated request |
| Sample Response | **Success Response:**  *{*  *"elasticSearch": {*  *"Status": "Success"*  *}-*  *}*  **Failed Response:**  *{*  *"elasticSearch": {*  *"Status": "Failed"*  *}-*  *}* |

### 

### updateConfig:

Updates configuration details for the given ‘ProjectName’, ‘Scenario’ and ‘ClientName’ combination.

|  |  |
| --- | --- |
| Method | POST |
| Mandatory Request Fields | ProjectName, Scenario, ClientName |
| Sample Request - URL | http://localhost:9000/updateConfig |
| Request Body | *{*  *"ClientName": "Comcast",*  *"isYSlowEnabled": false,*  *"Release": "",*  *"imageResourceExtension": ".jpg, .png, .gif",*  *"smtpPort": 23,*  *"ccEmailAddrList": "",*  *"isResourceAPIEnbaled": true,*  *"ySlowServiceUrl": "",*  *"toEmailAddrList": "",*  *"pageSpeedInsightServiceUrl": "",*  *"iswptEnabled": false,*  *"dataStoreUrl": "http://localhost:9200/statsindex/",*  *"isPageSpeedInsightEnabled": false,*  *"isDOMNeeded": false,*  *"beaconUrl": "http://HQSWL-C019119.cable.comcast.com:9000/",*  *"smtpHost": "",*  *"isAsyncCollectionEnabled": false,*  *"BuildNumber": "1.1",*  *"creationTimestamp": 1457309958790,*  *"fromEmailAddrList": "",*  *"ProjectName": "eInstein",*  *"RunID": 1,*  *"staticResourceExtension": ".css,.js",*  *"runInterval": 5,*  *"runTimestamp": 1457309958790,*  *"Scenario": "STG",*  *"isNavigationAPIEnabled": true*  *}* |
| Sample Response | **Success Response:**  *{*  *"Status": "Success"*  *}*  **Failed Response:**  *{*  *"Status" : "Failed",*  *"Error" : "ProjectName, ClientName, Scenario cannot be blank"*  *}* |