Exercise

The objective of this exercise is to assess the creativity, competency and ability of the candidate to translate a simple business requirement into an innovative concept. As a pioneer in Energy Management, we are looking to hire thought leaders and bright minds that are keen to work in an environment that allows them to create.

In this exercise, you will use the REST API detailed below to develop a mobile application on Android and/or Apple iOS. Candidates may choose to develop this app using native SDKs, Web or Hybrid App. Candidates should carefully assess the 3 approaches and decide the most appropriate. Candidates will be asked to explain their choice, the pros and cons.

The App must be capable of displaying a real time chart, displaying a tree view (with parent child relationship), selecting any of the child nodes and effecting real time control from any one of them. The App shall be completed within the stipulated time. You may use any familiar library that you can find online.

The following REST APIs are available for us :

1. GetBinnedEvents.
   This API is used to get time series data for display on a table or chart. The following describes the API parameters which must be provided for each API call.

   Url: http://test.greenkoncepts.com/ems/services/ResourceService/binnedEvents

Parameter	Value	Description
key	2.1363230012.d593eb3472e8f0b8346fae1bf53aa4e38f6d96f4	This key is used for authentication
nodeNames	ci_gkoffice	Request the node to display
beginDate		Begin date of the time period in timestamp
endDate		End date of the time period in timestamp
binEnum	1	Hourly data
dataNames	Energy	Energy value
callerID		Leave it empty in this case

   Use this link below to run the api on web browser

   http://test.greenkoncepts.com/ems/services/ResourceService/binnedEvents?key=2.1363230012.d593eb3472e8f0b8346fae1bf53aa4e38f6d96f4&nodeNames=ci_gkoffice&beginDate=1363143611618&endDate=1363230011619&binEnum=1&dataNames=Energy&callerID=callerID

2. GetControlNodes

To display the hierarchy of all the control nodes

Url: http://test.greenkoncepts.com/ems/services/ResourceService/controlNodes

Parameter	Value	Description
key	2.1363230012.d593eb3472e8f0b8346fae1bf53aa4e38f6d96f4	This key is used for authentication
nodeName		Leave it empty in this case
callerID		Leave it empty in this case

Use this link below to run the api on web browser

http://test.greenkoncepts.com/ems/services/ResourceService/controlNodes?key=2.1363230142.ba020be798720bab865be198bdde242f7b158b8&nodeName=&callerID=callerID

3. Control
   To turn on and off the light

   Url: http://test.greenkoncepts.com/ems/services/ResourceService/control

Parameter	Value	Description
key	2.1363230012.d593eb3472e8f0b8346fae1bf53aa4e38f6d96f4	This key is used for authentication
id	e.g Control-GKC-F0AD4E00EADB-4000-1-0	Provide name of the node that you get from GetControlNodes
command	e.g Relay Status=1	If relay status = 1 to turn on the light, 0 to turn off the light
isGroupControl	false	Set false in this case
callerID		Leave it empty in this case

Use this link below to run the api on web browser

http://test.greenkoncepts.com/ems/services/ResourceService/control?key=2.1363230266.a33dbb9f87479c8ea2aad6c5d775c2f5285dde2&id=Control-GKC-F0AD4E00EADB-4000-1-0&command=Relay+Status%3D1%3BAnalog%3D100&isGroupControl=false&callerID=callerID