SINGAPORE POLYTECHNIC | SP

DIRE◆TIE

Diploma in
Information Technology

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Semester 1 (Stage 3A)

Proposed Project: Directie

Program API
Documentation

Group 1

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1.0 Amazon API Gateway

It is used for connecting to our mobile and web applications to APIs that run on AWS Lambda and retrieve data from the Relational Database Service. We will be using POST method API call which has a request paths called 'type' and URL Query String Parameters called 'action'.

Here's an example how they will be used. When our mobile and web application requires all Beacon data, they will pass in the request paths 'type' as 'Beacon' and 'action' as 'getBeacon'.

2.0 Data related to Beacon

All Request Paths: "type" = "Beacon"

GET all Beacon data:
Request: /Beacon?action=getBeacon
Query Strings: "action" = "getBeacon"
Request Body: {}

GET the data of the Beacons to map the route:
Request: /Beacon?action=getBRoute
Query Strings: "action" = "getBRoute"
Request Body: {}

GET a specific Beacon data:
Request: /Beacon?action=getBeaconById
Query Strings: "action" = "getBeaconById"
Request Body: {
              "Beacon": {
                     "BeaconID": { "type": "integer" }
                }
             }

Update a specific Beacon data:

Request: /Beacon?action=putBeacon

Query Strings: "action" = "putBeacon"

Request Body: {

```
        "Beacon": {
            "UUID": { "type": "string" },
            "Major": { "type": "integer" },
            "Minor": { "type": "integer" },
            "TurningPoint": { "type": "integer" },
            "BeaconID": { "type": "integer" }
        }
    }
```

Update the Toggle in a specific Beacon data:

Request: /Beacon?action=putToggle

Query Strings: "action" = "putToggle"

Request Body: {

```
        "Beacon": {
            "Toggle": { "type": "integer" },
            "BeaconID": { "type": "integer" }
        }
    }
```

Create a new Beacon data:

Request: /Beacon?action=createBeacon

Query Strings: "action" = "createBeacon"

Request Body: {

```
        "Beacon": {
            "BeaconID": { "type": "integer" },
            "UUID": { "type": "string" },
            "Major": { "type": "integer" },
            "Minor": { "type": "integer" },
            "TurningPoint": { "type": "integer" },
            "Toggle": { "type": "integer" }
        }
    }
```

Delete a specific Beacon data:

Request: /Beacon?action=deleteBeacon

Query Strings: "action" = "deleteBeacon"

Request Body: {

```
        "Beacon": {
                "BeaconID": { "type": "integer" }
        }
}
```

3.0 Data related to Facility

All Request Paths: "type" = "Facility"

GET all Facility data:
Request: /Facility?action=getFacility
Query Strings: "action" = "getFacility"
Request Body: {}

GET a specific Facility data:
Request: /Facility?action=getFacilityById
Query Strings: "action" = "getFacilityById"
Request Body: {
       "Facility": {
          "FacilityID": { "type": "integer" }
       }
       }

Update a specific Facility data:
Request: /Facility?action=putFacility
Query Strings: "action" = "putFacility"
Request Body: {
       "Facility": {
          "FacilityName": { "type": "string" },
          "FacilityInfo": { "type": "string" },
          "FacilityID": { "type": "integer" },
          "ImageUrl": { "type": "string" },
          "Category": { "type": "string" },
          "ImageID": { "type": "integer" },
          "UnitID": { "type": "array" }
       }
       }

Create a new Facility data:

Request: /Facility?action=createFacility

Query Strings: "action" = "createFacility"

Request Body: {

        "Facility": {

            "FacilityName": { "type": "string" },

            "FacilityInfo": { "type": "string" },

            "ImageUrl": { "type": "string" },

            "Category": { "type": "string" },

            "UnitID": { "type": "array" }

        }

      }

Delete a specific Facility data:

Request: /Facility?action=deleteFacility

Query Strings: "action" = "deleteFacility"

Request Body: {

        "Facility": {

            "FacilityID": { "type": "integer" }

        }

      }

4.0 Data related to Unit

All Request Paths: "type" = "Unit"

GET all Unit data:
Request: /Unit?action=getUnit
Query Strings: "action" = "getUnit"
Request Body: {}

GET a specific Unit data:
Request: /Unit?action=getUnitById
Query Strings: "action" = "getUnitById"
Request Body: {
      "Unit": {
          "UnitID": { "type": "integer" }
      }
      }

Update a specific Unit data:
Request: /Unit?action=putUnit
Query Strings: "action" = "putUnit"
Request Body: {
      "Unit": {
          "UnitNo": { "type": "string" },
          "Level": { "type": "integer" },
          "Block": { "type": "string" },
          "UnitName": { "type": "string" },
          "UnitID": { "type": "integer" },
          "ImageUrl": { "type": "string" },
          "Category": { "type": "string" },
          "ImageID": { "type": "integer" },
          "BeaconID": { "type": "array" }
      }
      }

Create a new Unit data:

Request: /Unit?action=createUnit

Query Strings: "action" = "createUnit"

Request Body: {

        "Unit": {

            "UnitNo": { "type": "string" },

            "Level": { "type": "integer" },

            "Block": { "type": "string" },

            "UnitName": { "type": "string" },

            "ImageUrl": { "type": "string" },

            "Category": { "type": "string" },

            "BeaconID": { "type": "array" }

        }

        }

Delete a specific Unit data:

Request: /Unit?action=deleteUnit

Query Strings: "action" = "deleteUnit"

Request Body: {

        "Unit": {

            "UnitID": { "type": "integer" }

        }

        }

5.0 Data related to BeaconDirection

All Request Paths: "type" = "BeaconDirection"

GET all BeaconDirection data:
Request: /BeaconDirection?action=getBeaconDirection
Query Strings: "action" = "getBeaconDirection"
Request Body: {}

GET a specific BeaconDirection data:
Request: /BeaconDirection?action=getBeaconDirectionById
Query Strings: "action" = "getBeaconDirectionById"
Request Body: {
       "BeaconDirection": {
          "BDirectionID": { "type": "integer" }
       }
       }

Update a specific BeaconDirection data:
Request: /BeaconDirection?action=putBeaconDirection
Query Strings: "action" = "putBeaconDirection"
Request Body: {
       "BeaconDirection": {
          "CurrentBID": { "type": "integer" },
          "PreviousBID": { "type": "integer" },
          "NextBID": { "type": "integer" },
          "DirectID": { "type": "integer" },
          "Compass": { "type": "integer" },
          "Note": { "type": "string" },
          "BDirectionID": { "type": "integer" }
       }
       }

Create a new BeaconDirection data:

Request: /BeaconDirection?action=createBeaconDirection

Query Strings: "action" = "createBeaconDirection"

Request Body: {

        "BeaconDirection": {

            "CurrentBID": { "type": "integer" },

            "PreviousBID": { "type": "integer" },

            "NextBID": { "type": "integer" },

            "DirectID": { "type": "integer" },

            "Compass": { "type": "integer" },

            "Note": { "type": "string" }

        }

        }

Delete a specific BeaconDirection data:

Request: /BeaconDirection?action=deleteBeaconDirection

Query Strings: "action" = "deleteBeaconDirection"

Request Body: {

        "BeaconDirection": {

            "BDirectionID": { "type": "integer" }

        }

        }

6.0 Data related to BeaconRelation

All Request Paths: "type" = "BeaconRelation"

GET all BeaconRelation data:
Request: /BeaconRelation?action=getBeaconRelation
Query Strings: "action" = "getBeaconRelation"
Request Body: {}

GET a specific BeaconRelation data:
Request: /BeaconRelation?action=getBeaconRelationById
Query Strings: "action" = "getBeaconRelationById"
Request Body: {
        "BeaconRelation": {
           "BeaconID": { "type": "integer" }
        }
        }

Update a specific BeaconRelation data:
Request: /BeaconRelation?action=putBeaconRelation
Query Strings: "action" = "putBeaconRelation"
Request Body: {
        "BeaconRelation": {
           "BeaconID": { "type": "integer" },
           "NewBeaconID": { "type": "integer" },
           "RelatedBeacon": { "type": "array" }
        }
        }

Create a new BeaconRelation data:
Request: /BeaconRelation?action=createBeaconRelation
Query Strings: "action" = "createBeaconRelation"
Request Body: {
        "BeaconRelation": {
           "BeaconID": { "type": "integer" },
           "RelatedBeacon": { "type": "array" }
        }
        }

Delete a specific BeaconRelation data:

Request: /BeaconRelation?action=deleteBeaconRelation

Query Strings: "action" = "deleteBeaconRelation"

Request Body: {

        "BeaconRelation": {

           "BeaconID": { "type": "integer" }

      }

    }

7.0 Data related to BeaconUnit

All Request Paths: "type" = "BeaconUnit"

GET all BeaconUnit data:
Request: /BeaconUnit?action=getBeaconUnit
Query Strings: "action" = "getBeaconUnit"
Request Body: {}

GET a specific BeaconUnit data:
Request: /BeaconUnit?action=getBeaconUnitById
Query Strings: "action" = "getBeaconUnitById"
Request Body: {
                "BeaconUnit": {
                    "UnitID": { "type": "integer" }
                }
            }

Update a specific BeaconUnit data:
Request: /BeaconUnit?action=putBeaconUnit
Query Strings: "action" = "putBeaconUnit"
Request Body: {
                "BeaconUnit": {
                    "BeaconID": { "type": "integer" },
                    "UnitID": { "type": "integer" },
                    "BUID": { "type": "integer" }
                }
            }

Create a new BeaconUnit data:
Request: /BeaconUnit?action=createBeaconUnit
Query Strings: "action" = "createBeaconUnit"
Request Body: {
                "BeaconUnit": {
                    "BeaconID": { "type": "integer" },
                    "UnitID": { "type": "integer" }
                }
            }

Delete a specific BeaconUnit data:

Request: /BeaconUnit?action=deleteBeaconUnit

Query Strings: "action" = "deleteBeaconUnit"

Request Body: {

```
        "BeaconUnit": {
                "BUID": { "type": "integer" }
        }
}
```

8.0 Data related to FacilityUnit

All Request Paths: "type" = "FacilityUnit"

GET all FacilityUnit data:
Request: /FacilityUnit?action=getFacilityUnit
Query Strings: "action" = "getFacilityUnit"
Request Body: {}

GET a specific FacilityUnit data:
Request: /FacilityUnit?action=getFacilityUnitById
Query Strings: "action" = "getFacilityUnitById"
Request Body: {
      "FacilityUnit": {
         "FUID": { "type": "integer" }
      }
    }

Update a specific FacilityUnit data:
Request: /FacilityUnit?action=putFacilityUnit
Query Strings: "action" = "putFacilityUnit"
Request Body: {
      "FacilityUnit": {
         "FacilityID": { "type": "integer" },
         "UnitID": { "type": "integer" },
         "FUID": { "type": "integer" }
      }
    }

Create a new FacilityUnit data:
Request: /FacilityUnit?action=createFacilityUnit
Query Strings: "action" = "createFacilityUnit"
Request Body: {
      "FacilityUnit": {
         "FacilityID": { "type": "integer" },
         "UnitID": { "type": "integer" }
      }
    }

Delete a specific FacilityUnit data:

Request: /FacilityUnit?action=deleteFacilityUnit

Query Strings: "action" = "deleteFacilityUnit"

Request Body: {

        "FacilityUnit": {

           "FacilityID": { "type": "integer" }

      }

    }

9.0 Data related to Image

All Request Paths: "type" = "Image"
Request: /Image?action=getImage
Query Strings: "action" = "getImage"
Request Body: {}