DB Schema for Kolkata Flood Monitoring

## **flood\_monitoring\_stations**

In this table the details of all stations will be stored.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| fms\_id | Station ID | bigint(20) | PK |
| fms\_sub\_cat\_id | Station Sub-category ID | mediumint(3) | FK |
| fms\_name | Station Name | varchar(100) |  |
| fms\_slug | Station Slug for URLs | varchar(250) |  |
| fms\_lat | Geolocation Latitude of Station | double |  |
| fms\_long | Geolocation Longitude of Station | double |  |
| fms\_street | Street/Area where the Station is installed | varchar(100) |  |
| fms\_city | City where the Station is installed | varchar(100) |  |
| fms\_state | State where the Station is installed | varchar(100) |  |
| fms\_country | Country where the Station is installed | varchar(100) |  |
| fms\_param\_list | Array of Objects of Parameter Details of Station | text |  |
| fms\_lst\_data | Array of last received values of parameters of this station | text |  |
| fms\_lst\_dat\_srv\_time | Unix timestamp of server for last received data for this station | bigint(10) |  |
| fms\_lst\_dat\_time | Unix timestamp of data capturing for last received data for this station | bigint(10) |  |
| fms\_dev\_status | Device Status (0 -> working fine, 1-> RS-485 Read Error, 2-> 4 - 20 mA Data Error) | tinyint(3) |  |
| fms\_dev\_status\_last\_updated | Unix timestamp of Device Status updated last for this station | bigint(10) |  |
| fmdev\_id | Device ID to be used during configuring | bigint(20) | FK |
| fms\_send\_data\_to\_phoenixrobotix | Flag to enable or disable to send data to Phoenix Robotix Server | tinyint(1) |  |
| fms\_status | Flag to enable or disable the status of station | tinyint(1) |  |
| fms\_is\_active | Flag to mark as enable or disable the device | tinyint(1) |  |
| fms\_sim\_mob\_num | Phone No. of SIM for the station | bigint(10), |  |
| fms\_sim\_serial\_num | Serial No. of SIM for the station | varchar(100) |  |
| fms\_sim\_operator | Operator of SIM for the station | varchar(50) |  |
| fms\_added\_by | User ID by whom the station is added | bigint(20) | FK |
| fms\_added\_at | Unix Timestamp when the station is added | bigint(10) |  |
| fms\_added\_from\_ua | User Agent Details of the User’s Browser from which the station is added | text |  |
| fms\_instl\_done\_by | Employee Name by whom the station is Installed | varchar(256) |  |
| fms\_instl\_done\_at | Unix Timestamp when the station is installed | bigint(10) |  |
| fms\_instl\_done\_from\_ua | User Agent Details of the User’s Browser from which the station is installed | text |  |
| fms\_approved\_by | User ID by whom the station is approved | bigint(20) | FK |
| fms\_approved\_at | Unix Timestamp when the station is approved | bigint(10) |  |
| fms\_approved\_from\_ua | User Agent Details of the User’s Browser from which the station is approved | text |  |
| fms\_analyser\_status\_flag | Flag for the status of Analyzer (0 -> Usable, 1 -> Maintenance, 2 -> Faulty) | tinyint(1) |  |
| fms\_image\_path | URL of the Image of Station Installed | varchar(255) |  |

## **flood\_monitoring\_devices**

In this table the details of all devices will be stored.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| fmdev\_id | Device ID | bigint(20) | PK |
| fmdev\_qr\_code | Unique QR Code to be assigned to device | varchar(256) |  |
| fmdev\_auth\_token | Authentication Token which will be used to authenticate the device for configuration | varchar(256) |  |
| fmdev\_is\_active | Flag to mark device as active or inactive | tinyint(1) |  |
| fmdev\_created\_at | Unix Timestamp when the device is added | bigint(10) |  |
| fmdev\_imei\_no | IMEI no. of the device | varchar(50) |  |
| fmdev\_firmware\_version | Firmware version which will be installed in the device | varchar(15) |  |
| fmdev\_circuit\_version | Circuit version of the device | varchar(15) |  |
| fmdev\_last\_online\_time | Unix Timestamp when the device was last online | bigint(10) |  |
| fmdev\_last\_data\_receive\_time | Unix Timestamp when the device last received the data | bigint(10) |  |
| fmdev\_last\_raw\_data | Array of last received raw values of parameters of this device | text |  |
| fmdev\_station\_list | Array of Station IDs assigned to the device | text |  |
| fmdev\_error\_detected\_type | [unknown] | int(9) |  |
| fmdev\_error\_detected\_at | Unix Timestamp when the error is detected in device | bigint(10) |  |
| fmdev\_status\_change\_time | Unix Timestamp when the status of device is changed | bigint(10) |  |
| fmdev\_deployed\_at | Unix Timestamp when the device is deployed | bigint(10) |  |
| fmdev\_manufactured\_at | Unix Timestamp when the device is manufactured | bigint(10) |  |
| fmdev\_assembled\_at | Unix Timestamp when the device is assembled | bigint(10) |  |
| fmdev\_is\_shutdown | Flag to mark the device is shutdown or not | tinyint(1) |  |

## **flood\_monitoring\_station\_parameters**

In this table, the parameters of the stations will be stored.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| fms\_prm\_id | ID of Parameter | bigint(20) | PK |
| fms\_prm\_name | Name of the Parameter | varchar(250) |  |
| fms\_prm\_key | Key which represents the Parameter | varchar(10) |  |
| fms\_prm\_unit | Name of the Parameter Unit | varchar(250) |  |

## **flood\_monitoring\_station\_categories**

In this table, the categories of the stations will be stored.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| fms\_cat\_id | Category ID for Stations | bigint(20) | PK |
| fms\_cat\_name | Name of the Category | varchar(50) |  |

## **flood\_monitoring\_station\_sub\_categories**

In this table, the sub-categories of the stations will be stored against the categories.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| fms\_sub\_cat\_id | Sub-Category ID for Stations | bigint(20) | PK |
| fms\_sub\_cat\_name | Name of the Sub-Category | varchar(50) |  |
| fms\_cat\_id | Category ID under which the Sub-Category comes | bigint(20) | FK |
| fms\_sub\_cat\_show\_trend | Flag to show 24 hours’ trend or not | tinyint(1) |  |

## **flood\_monitoring\_devices\_raw\_data**

In this table, the raw data will be stored against the device IDs.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| fmdev\_id | Device ID | bigint(20) | FK |
| fmd\_rd\_time | Unix Timestamp when the device received the data | bigint(10) |  |
| fmd\_rd\_data | Array of received raw values of parameters of the device | text |  |

## **flood\_monitoring\_devices\_hourly\_data**

In this table, the calculated hourly data will be stored against the device IDs.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| fmdev\_id | Device ID | bigint(20) | FK |
| fmd\_hd\_time | Unix Timestamp when the data is calculated for last hour | bigint(10) |  |
| fmd\_hd\_data | Object of hourly calculated values of parameters of the device saved by the service which calculate the hourly data. Example of Hourly Data Packet: {"rain":{"min":10,"max":60,"avg":30,"min\_at":1529386061,"max\_at":1529376045}} | text |  |

## **usr\_login**

In this table, the login details of all users will be stored.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| usr\_id | User ID referring a User | bigint(20) | PK |
| usr\_first\_name | First Name of the User | varchar(50) |  |
| usr\_middle\_name | Middle Name of the User | varchar(50) |  |
| usr\_last\_name | Last Name of the User | varchar(50) |  |
| usr\_designation | Designation of the User | varchar(255) |  |
| usr\_department | Department of the User | varchar(255) |  |
| usr\_email | Email ID of the User | varchar(255) |  |
| usr\_phone | Phone No. of the User | varchar(13) |  |
| usr\_pass | Encrypted Password of the User for Login | varchar(60) |  |
| usr\_type | Type of User (0: User, 1: Admin, 2: Manager, 3: Alerts Only) | tinyint(1) |  |
| usr\_post\_login\_url | URL to be redirected after the User logged in | text |  |
| usr\_added\_at | Timestamp when the User Account was created | bigint(10) |  |
| usr\_added\_by | ID of the User who created the User Account | bigint(20) | FK |
| usr\_added\_from\_ua | User Agent Details of the User’s Browser from which the User Account is created | text |  |
| usr\_force\_pw\_change | Flag to set User to change Password after login (1: Enable) | tinyint(1) |  |
| usr\_access | Access configuration for the User | text |  |
| usr\_is\_active | Flag to set User is Active or not (0: Inactive, 1: Active) | tinyint(1) |  |
| usr\_report\_to | ID of User to whom the User has to Report | bigint(20) | FK |

## **usr\_deleted\_accounts**

In this table, the login details of all deleted users will be stored.

|  |  |  |  |
| --- | --- | --- | --- |
| Field | Description | Type | Other |
| usr\_id | User ID referring a User | bigint(20) | PK |
| usrdel\_first\_name | First Name of the User | varchar(50) |  |
| usrdel\_middle\_name | Middle Name of the User | varchar(50) |  |
| usrdel\_last\_name | Last Name of the User | varchar(50) |  |
| usrdel\_designation | Designation of the User | varchar(255) |  |
| usrdel\_department | Department of the User | varchar(255) |  |
| usrdel\_email | Email ID of the User | varchar(255) |  |
| usrdel\_phone | Phone No. of the User | varchar(13) |  |
| usrdel\_pass | Encrypted Password of the User for Login | varchar(60) |  |
| usrdel\_type | Type of User (0: User, 1: Admin, 2: Manager, 3: Alerts Only) | tinyint(1) |  |
| usrdel\_post\_login\_url | URL to be redirected after the User logged in | text |  |
| usrdel\_added\_at | Timestamp when the User Account was created | bigint(10) |  |
| usrdel\_added\_by | ID of the User who created the User Account | bigint(20) | FK |
| usrdel\_added\_from\_ua | User Agent Details of the User’s Browser from which the User Account is created | text |  |
| usrdel\_force\_pw\_change | Flag to set User to change Password after login (1: Enable) | tinyint(1) |  |
| usrdel\_access | Access configuration for the User | text |  |
| usrdel\_is\_active | Flag to set User is Active or not (0: Inactive, 1: Active) | tinyint(1) |  |
| usrdel\_report\_to | ID of User to whom the User has to Report | bigint(20) | FK |
| usrdel\_deleted\_by | ID of User who deleted the User Account | bigint(20) | FK |
| usrdel\_deleted\_at | Timestamp when the User Account was deleted | bigint(10) |  |
| usrdel\_deleted\_from\_ua | User Agent Details of the User’s Browser from which the User Account was deleted | text |  |