**Unit Test: Emergency Information Server**

**Unit Test Case 1 (UTC-01) :** getHelpPlaces ( ) : List<HelpPlace>

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 1

|  |  |  |
| --- | --- | --- |
| Case | Description | Expected Result |
| Size of help place list |
| 1 | Test get all help place in database | 5 |

**Unit Test Case 2 (UTC-02):** findById ( Integer id ) : HelpPlace

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 1

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Description | Input | Expected Result | | | | | | | | |
| Help place object | | | | | | | | |
| Name | Address | District | Province | Zip code | Phone Number | Latitude | Longitude | Category |
| 1 | Test find help place by input ID which is in database | 1 | Maharaj Nakorn Chiang Mai Hospital | 10 Suthep Rd | Mueang Chiang Mai | Chiang Mai | 50200 | 053-947700 | 18.789602 | 98.974209 | Hospital |
| 2 | Test find help place by input ID which is not in database | 6 | null | | | | | | | | |

**Unit Test Case 3 (UTC-03):** updateHelpPlace (HelpPlace helpPlace) : void

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 1

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Description | Input | | | | | | | | |
| Help place object | | | | | | | | |
| Name | Address | District | Province | Zip code | Phone Number | Latitude | Longitude | Category |
| 1 | Test edit help place | Maharaj Nakorn Chiang Mai Hospital | 10 Suthep Rd | Mueang Chiang Mai | Lampang | 50200 | 053-111111 | 18.789602 | 98.974209 | Hospital |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Expected Result | | | | | | | | |
| Help place object | | | | | | | | |
| Name | Address | District | Province | Zip code | Phone Number | Latitude | Longitude | Category |
| 1 | Maharaj Nakorn Chiang Mai Hospital | 10 Suthep Rd | Mueang Chiang Mai | Lampang | 50200 | 053-111111 | 18.789602 | 98.974209 | Hospital |

**Unit Test Case 4 (UTC-04):** deleteHelpPlace (Integer id) : void

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 1

|  |  |  |  |
| --- | --- | --- | --- |
| Case | Description | Input | Expected Result |
| Help place object in database |
| ID |
| 1 | Test delete help place in database | 1 | 2,3,4,5 |
| 2 | Test delete help place in database | 4 | 1,2,3,5 |
| 3 | Test delete help place which not in database | 7 | 1,2,3,4,5 |

**Unit Test Case 5 (UTC-05):** getHelpPlacesByCategory (Integer categoryId) **:** List<HelpPlace>

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 1

|  |  |  |  |
| --- | --- | --- | --- |
| Case | Description | Input | Expected Result |
| Size of help place list |
| 1 | Test get help place by input category id | 1 | 3 |
| 2 | Test get help place by input category id | 3 | 1 |
| 3 | Test get help place by input category id which is not in database | 5 | null |

**Unit Test Case 6 (UTC-06):** getHelpPlacesByProvince (Integer provinceId) **:** List<HelpPlace>

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 1

|  |  |  |  |
| --- | --- | --- | --- |
| Case | Description | Input | Expected Result |
| Size of help place list |
| 1 | Test get help place by input province id | 1 | 3 |
| 2 | Test get help place by input province id | 2 | 1 |
| 3 | Test get help place by input province id which is not in database | 5 | null |

**Unit Test Case 7 (UTC-07):** getHelpPlacesByCategoryAndProvince (Integer categoryId, Integer provinceId) **:** List<HelpPlace>

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Case | Description | Input | | Expected Result |
| Category ID | Province ID | Size of help place list |
| 1 | Test get help place by input category id and province id | 1 | 1 | 2 |
| 2 | Test get help place by input category id and province id | 2 | 3 | 1 |
| 3 | Test get help place by input category id and province id which is not in database | 3 | 3 | null |
| 4 | Test get help place by input category id and province id which is not in database | 2 | 1 | null |

**Unit Test Case 8 (UTC-08):** getCategories ( ) : List<Category>

**Class name:** CategoryServiceTest  **Test Data:** Test Record 1

|  |  |  |
| --- | --- | --- |
| Case | Description | Expected Result |
| Size of category list |
| 1 | Test get all categories in database | 3 |

**Unit Test Case 9 (UTC-09):** getProvinces ( ) : List<Province>

**Class name:** ProvinceServiceTest  **Test Data:** Test Record 1

|  |  |  |
| --- | --- | --- |
| Case | Description | Expected Result |
| Size of category list |
| 1 | Test get all provinces in database | 3 |

**Unit Test: Emergency Information on Mobile**

**Unit Test Case 10 (UTC-10):** getJsonObjByURL ( String url): JSONObject

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Case | Description | Input | Expected Result | | | | |
| JSON object | | | | |
| Name | Address | Phone Number | Latitude | Longitude |
| 1 | Test to get JSON object by input string url of server | “http://androidexample.com/media/webservice/JsonReturn.php” | Maharaj Nakorn Chiang Mai Hospital | 110 Suthep Rd, Mueang Chiang Mai District, Chiang Mai 50200 | 053947700 | 18.789602 | 98.974209 |
| 2 | Test to get JSON object by input string url of server | “http://Google.co.th” | null | | | | |

**Unit Test Case 11 (UTC-11):** getHelpPlacesByJsonOBJ(JSONObject jsonOBJ): JSONArray

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 2

|  |  |  |
| --- | --- | --- |
| Case | Description | Expected Result |
| Size of category list |
| 1 | Test to get JSON array by input JSON object | 3 |

**Unit Test Case 12 (UTC-12):** getHelpplaceFromDevice( ): HelpPlace[ ]

**Class name:** HelpPlaceServiceImplTest **Test Data:** Test Record 2

|  |  |  |
| --- | --- | --- |
| Case | Description | Expected Result |
| Size of category list |
| 1 | Test to get help places that saved in user’s device | 5 |

**Unit Test Case 13 (UTC-13):** setHelpPlacesToDB(ArrayList<HelpPlace> helpPlaceList): void

**Class name:** HelpPlaceServiceTest **Test Data:** Test Record 2

|  |  |  |  |
| --- | --- | --- | --- |
| Case | Description | Input | Expected Result |
| Size of Array |
| 1 | Test set value from input help place in array list to array | 5 | 5 |
| 2 | Test set value from input help place in array list to array | 4 | 4 |
| 3 | Test set value from input help place in array list to array | 3 | 3 |

**Test Data**

* Test Record 1

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Help place object | | | | | | | | | |
| ID | Name | Address | District | Province | Zip code | Phone Number | Latitude | Longitude | Category |
| 1 | Maharaj Nakorn Chiang Mai Hospital | 10 Suthep Rd | Mueang Chiang Mai | Chiang Mai | 50200 | 053-947700 | 18.789602 | 98.974209 | Hospital |
| 2 | Lanna Hospital | Chang Phuak | Mueang Chiang Mai | Chiang Mai | 50300 | 053-999758 | 18.812723 | 98.991151 | Hospital |
| 3 | Lampang Hospital | Tambon Phrabat | Amphoe Mueang Lampang | Lampang | 52000 | 054-237400 | 18.285378 | 99.506305 | Hospital |
| 4 | Chiang Rai Police Station | Rattanakeat Road | Mueang Chiang Rai | Chiang Rai | 57000 | 053-603100 | 19.912221 | 99.832526 | Police Station |
| 5 | Ruangchai Yon Garage | Outer Ring Road | Saraphi District | Chiang Mai | 50000 | 053-242999 | 18.750651 | 99.055108 | Garage |

* Test Record 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| JSON object | | | | | |
| ID | Name | Address | Phone Number | Latitude | Longitude |
| 1 | Maharaj Nakorn Chiang Mai Hospital | 110 Suthep Rd, Mueang Chiang Mai District, Chiang Mai 50200 | 053947700 | 18.789602 | 98.974209 |
| 2 | Lanna Hospital | Chang Phuak Amphoe Mueang Chiang Mai, Chang Wat Chiang Mai 50300 | 053999758 | 18.812723 | 98.991151 |
| 3 | Lampang Hospital | Tambon Phrabat, Amphoe Mueang Lampang, Chang Wat Lampang 52000 | 054237400 | 18.285378 | 99.506305 |
| 4 | Chiang Rai Police Station | Rattanakeat Road, Mueang Chiang Rai, Chiang Rai, 57000 | 053603100 | 19.912221 | 99.832526 |
| 5 | Ruangchai Yon Garage | Saraphi District, Chiang Mai, ThailandAmphoe Muang Chiang Mai,Chiang Mai Outer Ring Road 50000 | 053-242999 | 18.750651 | 99.055108 |