Implementation example of MySQL GIS feature

YamaReco

Application

[YamaReco](#) is a Japanese web service that makes "you want to go to the mountain again". You can save the hiking record in YamaReco and share it with others. By sharing the knowledge and information of hikers, it is easier to make a hiking plan and helps to prevent distress. In addition, sharing the hiker's location information in real time allows the family to check the hiking status and helps rescue activities in case of emergency.

The service started in October 2005, and as of September 2019, it has become "a website visited by 1.4 million people per month" and "a hiking map application with 400,000 downloads".

YamaReco

Examples of using GIS feature of MySQL

The map search function for hiking records is implemented with Spatial Index and Spatial Function of MySQL to search fast. The MBRContains function is used in the standard search mode, and the ST_Contains function is used in the high accuracy search mode.

Map search function for mountain climbing records

Implemented using Leaflet and MySQL(Spatial Index + Spatial Function)

GPS log of other hikers(set of points)

MBRContains()
(Minimum Bounding Rectangle)

ST_Contains()
(Consider object shape)

Search Range