

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)

The image shows a topographic map with a blue line representing a hiking route and orange dots representing GPS logs of other hikers. A green rectangle on the map indicates the search range. A search results panel is open on the right, showing three results for mountain climbing records. Callouts explain the spatial functions used: MBRCContains() (Minimum Bounding Rectangle) and ST_Contains() (Consider object shape).

GPS log of other hikers(set of points)

Search Range

MBRCContains()
(Minimum Bounding Rectangle)

ST_Contains()
(Consider object shape)

検索結果

●標準検索モード ●高精度検索モード 再検索

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