Introduction

Geocaching is a treasure hunt where participants look for treasures hidden by other participants. This application shows Estonia's geocaching site's hidden treasures on a single map. It also shows density of hidden treasures with heatmap and clusters nearby treasures together.

Clustering is needed because showing all, over 2800 treasure markers, would make the system very slow and also unclear. Heatmap is a good visual aid to show where more treasures are hidden and also to visualize treasure density in different places. This site also shows latest user pictures of places where treasures are hidden.

Methods

Main data is taken from Geopeitus.ee site, where PHP script went through all hidden treasures and recorded necessary data. Then all coordinates are displayed on map using Google Maps API. Heatmap is also displayed using Google Maps API. Treasures are clustered together using MarkerClusterer. For every treasure it sees, it puts it either inside existing cluster or makes a new cluster.