



Map Icons QGIS Plugin

INTERN: MOSES KAMYA | MENTOR:
DR MEGHAN KELLY

A close-up photograph of a blue pushpin with a translucent blue spherical head, pinned to a white surface. The pushpin is positioned in the lower center of the frame. In the background, a map is visible with several thin, brown lines representing geographical features or boundaries. A solid blue horizontal line is located above the title text.

What is QGIS?

What QGIS is

- QGIS is a free, open-source desktop GIS app: you load maps and layers, style them, analyze geography, and export maps.

What a QGIS plugin is

- A plugin is an add-on that extends QGIS with extra menus, tools, or panels—without changing QGIS itself.

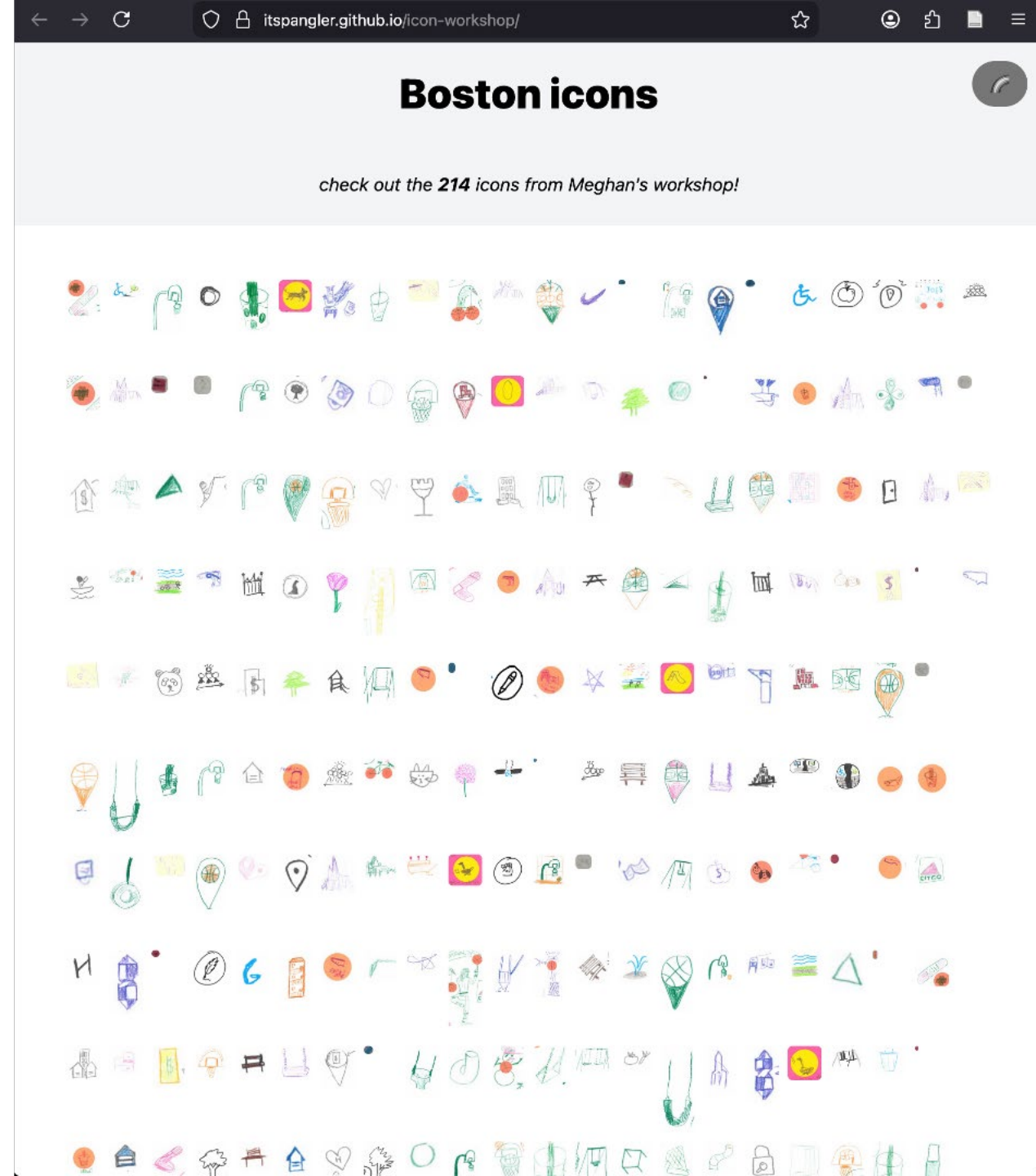
What we're building

- Map Icons — a plugin that adds a library of point icons inside QGIS.

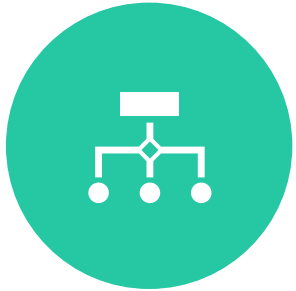
Map Icons for plugin

Data Collection

- Dr. Kelly facilitates mapping workshops where community members create map icons that reflect their everyday experiences in places like Boston.
- These icons are available in the QGIS plugin alongside their metadata.
- Icons and metadata come from a published Zenodo dataset.
- Users can pick PNG or SVG formats of the icons and apply them to point layers inside QGIS.



How the plugin loads and uses icons



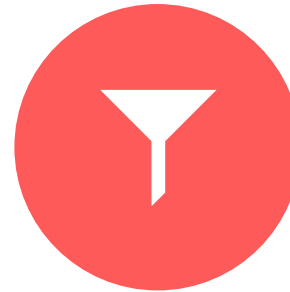
Configuration —
config.py stores the Zenodo record URLs which includes PNG zip, SVG zip and metadata spreadsheet file.



Download & cache —
data_manager.py checks a local cache/ folder; if files are missing, it downloads from Zenodo and extracts them.



UI & logic —
map_icons_dialog.py loads icons into a grid, shows metadata, supports PNG/SVG toggle for the selected point layer.



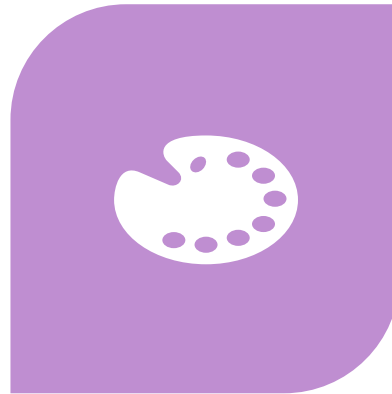
Search — filters icons using primary and secondary tags .

M

Next Steps



USE: SCALE ICONS, ADD
FAVORITES FUNCTION



STYLE: USER COLOR +
BROADER STYLIZATION



SHARE: PUBLIC WEBSITE FOR
ICON UPLOADS