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How to use it:

The first screen:

- The simple application contains 3 pages. The first one is the main page of which top half screen is the map indicating the user's current location, while the low half screen is a table view showing the name of artworks nearby, grouping by its location (i.e. the building where the artwork currently stay).
- If you change the orientation of your phone to In horizontal direction, the top half screen turns to left, and the lower half screen turns to the right. (Possibly report an error in the console but do not affect use.)
- Click an annotation in the map, which is the top (or left) half-part screen, if there only one artwork in that building, the application will directly present the details for corresponding artwork. If there are multiple artworks, there will be a name list of artworks in that building presented. If only one artwork is existing in a building, the label of the annotation on the map only shows the name of the artwork, and if many artworks in the same building, the label of that annotation will present the building name.
- The table view allows the user to slide up or down and click on the name of artwork. If one artwork is selected, the corresponding detail for that artwork will be presented. It also sorted according to the distance in between you and artworks (more precisely, the location of the building where that artwork stays).
- The map and table view is frequently updated according to user's location. That means, if you are moving around, the map will track your location, and the table view will be sorting and reloading according to the distance in between you and artworks. This is also why the map will do not support to scroll (if it does, the map will consistently jump back to your current location after you do scrolling).

Multiple Artwork in same building List screen:

- Present the multiple artwork in the same building. You can select one to check its detail or click back button to go return to the first screen.

Detail screen:

- Present details for a art work. The upper side is the picture of that artwork and the lower side is the name, artist, built year and details for the artwork.
- Support oritention change. In horizontal screen, the picture turns to left while other information turns to right.

Notable features:

- Information is cached in Core Data.
- Incremental and synchronising update. The artwork information is in cache, which means the only updated information will be downloaded.
- Image is also in cache folder and it is lazy-loaded. That is, the program will first try find in

local cache folder for the image to display, if it failed to do so, then it will download the image in background and display it after download.

- Support deletion, a item marked as not enabled will not be shown for users.
- Support landscape view
- Support realtime relocation

Limitations:

The console may report an error when the orientation is changed in first screen, but it still works.