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PMA HACKATHON 3.0 - HACKLAB

INDOOR POSITIONING ETC

TOPICS

- API Explorer
- GeoLocation basics
- MapBox
- Mobile Framework
- Mobile Framework Demo
- A is for Art

API EXPLORER

- Sign up on hackathon.philamuseum.org
  (if you haven't already)
- Check out the API Documentation
- Explore using API Explorer
- Rate limit: 500 requests per 5 minutes
- All requests are GET, unless otherwise stated
- Ignore iBeacon data

API EXPLORER - QUERIES & ENDPOINTS

- Object details
- Is object on view?
- Get all objects on view*
- Get the object location (if on view)
- Get objects in gallery
- Get gallery for location (latitude, longitude, floor)
- Get all locations
- Get locations GeoJSON

API EXPLORER - SCREENSHOT

API Explorer Explore the collection API

Get object information

1980-1-1 Search Reset Query

Request: `https://hackathon.philamuseum.org/api/v0/collection/object?query=1980-1-1&api_token=`

RAW Response: +

ObjectID
73569
Object Number
1980-1-1
Image Thumbnail
http://philamuseum.org/images/cad/mediaDecks/1980-1-1-CX.jpg
Image Full-Res
http://philamuseum.org/images/cad/zoomers/1980-1-1-CX.jpg
Artist (Display Format)
Paul Gauguin, French, 1848 - 1903
Artists (Listed)
1. Paul Gauguin, Role: Artist/Maker, Artist_Info: French, 1848 - 1903

Location Details

Gallery
Gallery 164
Gallery Name
Gallery 164, European Art 1850-1900, first floor (Women´s Committee Gallery)
Has Coordinates
Yes

GEOLOCATION BASICS

- PMA supports Apple Indoor Location Services
- Works with any iOS device (iOS 10 or later)
- Test it with the built-in Maps app
- You'll receive a latitude, longitude and NSFloor for your current location
- Resolve location either on device (using GeoJSON) or by querying the backend (keep rate limit in mind)

MAPBOX

- MapBox is a third party mapping service, that can be used for your prototyping and development
- Sign up at mapbox.com, and create a new dataset
- Save return data from “Get Locations GeoJSON” into JSON file and import into MapBox
- Or get creative and define your own polygons in MapBox and use it in your app

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MAPBOX

Get Locations GeoJSON

Get GeoJSON | Reset Query

Request: `https://hackathon.philamuseum.org/api/v0/collection/geojson?api_token=`

RAW Response: –

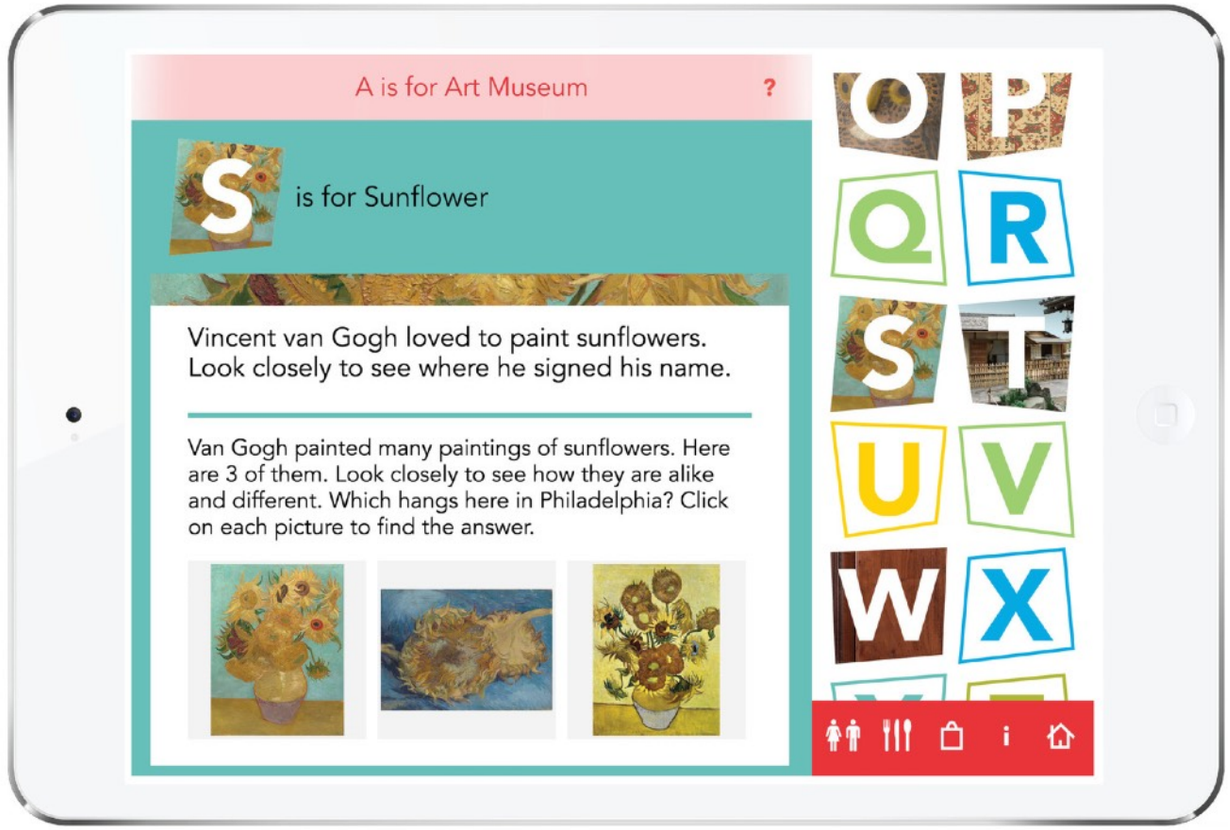

```
{
  "type": "FeatureCollection",
  "features": [
    {
  "type": "Feature",
  "properties": {
    "UNIT_ID": "1",
    "LEVEL_ID": "0002",
    "SUITE": "100"
  },
```


MOBILE FRAMEWORK

- https://github.com/philamuseum/mobileFramework
- Provides commons tasks:
  - Fully transparent asset caching
  - iBeacon support
  - **GeoJSON support**
- Open Source - if you find anything missing, add it!

MOBILE FRAMEWORK DEMO

- https://github.com/philamuseum/mobileFrameworkDemo
- Demo implementation for the mobileFramework
- All you need to supply is your API token
- It downloads the latest GeoJSON data from the backend
- Walk around the building to see it updating
- Quickstart Blog post: https://tinyurl.com/pma-hackathon


A is for Art Museum
?
S
is for Sunflower
Vincent van Gogh loved to paint sunflowers. Look closely to see where he signed his name.
Van Gogh painted many paintings of sunflowers. Here are 3 of them. Look closely to see how they are alike and different. Which hangs here in Philadelphia? Click on each picture to find the answer.
O
P
Q
R
S
T
U
V
W
X

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PLEASE REACH OUT!

THANK YOU!