

02

OPEN ORIENTED

凹凸实验室

PWA 缓存

之 Cache API 及工具介绍



目录

- API 篇

- 工具篇

- ◉ 提供缓存的 Request / Response 对象对的存储机制
- ◉ 一个域可以有多个 Cache 对象
- ◉ 需要在代码中处理和更新缓存
- ◉ 缓存数据不会过期, 除非删除它
- ◉ 需要定期地清理缓存条目, 因为每个浏览器都严格限制了一个域下缓存数据的大小

```
var CACHE_VERSION = 1;

// Shorthand identifier mapped to specific versioned cache.
var CURRENT_CACHES = {
  font: 'font-cache-v' + CACHE_VERSION
};

self.addEventListener('install', function(event) {
  event.waitUntil(
    caches.open(CURRENT_CACHES.font).then(function(cache) {
      return cache.addAll([
        '/sw-test/',
        '/sw-test/index.html',
        '/sw-test/style.css',
        '/sw-test/app.js',
      ]);
    })
  );
});
```

```
self.addEventListener('activate', function(event) {
  var expectedCacheNames = Object.keys(CURRENT_CACHES).map(function(key) {
    return CURRENT_CACHES[key];
  });

  // Active worker won't be treated as activated until promise resolves successfully.
  event.waitUntil(
    caches.keys().then(function(cacheNames) {
      return Promise.all(
        cacheNames.map(function(cacheName) {
          if (expectedCacheNames.indexOf(cacheName) == -1) {
            console.log('Deleting out of date cache:', cacheName);

            return caches.delete(cacheName);
          }
        })
      );
    })
  );
});
```

```
self.addEventListener('fetch', function(event) {
  console.log('Handling fetch event for', event.request.url);

  event.respondWith(

    // Opens Cache objects that start with 'font'.
    caches.open(CURRENT_CACHES['font']).then(function(cache) {
      return cache.match(event.request).then(function(response) {
        if (response) {
          console.log(' Found response in cache:', response);

          return response;
        }
      }).catch(function(error) {

        // Handles exceptions that arise from match() or fetch().
        console.error(' Error in fetch handler:', error);

        throw error;
      });
    })
  );
});
```


Developer Tools - https://wqs.jd.com/portal/wx/seckill_v2/index.sq.shtml

Elements Console Sources Network Performance Memory Application Security Audits

Application

- Manifest
- Service Workers
- Clear storage

Storage

- Local Storage
- Session Storage
- IndexedDB
- Web SQL
- Cookies

Cache

- Cache Storage
 - sw-runtime_v1 - https://wqs.jd.com
- Application Cache

Frames

- top

#	Request	Response
0	https://wq.360buyimg.com/c/=fd/h5/wx/gb/css/gb.min_182fa392.css,/fd/h5...	
1	https://wq.360buyimg.com/c/=js/common/dest/wq.mobilereport.min.js,js/co...	
2	https://wq.360buyimg.com/c/=js/common/dest/wq.mobilereport.min.js,js/co...	
3	https://wq.360buyimg.com/c/=js/common/dest/wq.mobilereport.min.js,js/co...	
4	https://wq.360buyimg.com/c/=js/common/dest/wq.mobilereport.min.js,js/co...	
5	https://wq.360buyimg.com/data/ppms/js/ppms.pagev30030.jsonp?t=20170...	
6	https://wq.360buyimg.com/fd/base/img/base/icon_nav.png	
7	https://wq.360buyimg.com/fd/h5/sq/gb/css/gb.min_e5b3b1b8.css	
8	https://wq.360buyimg.com/js/common/dest/qrcode.min.js?t=201603161559	
9	https://wq.360buyimg.com/js/common/dest/wq.header.min.js?201706071012	
10	https://wq.360buyimg.com/js/version/201706/spdtimmining.new.20170628145...	
11	https://wq.360buyimg.com/js/wxsq/seckill_v2/_js/indexSqCommon.js?t=351...	
12	https://wq.360buyimg.com/js/wxsq/seckill_v2/_js/indexSqContent.js?t=25a8...	

- ◎ sw-toolbox
- ◎ sw-precache

“A collection of service worker tools for offlining
runtime requests”

```
self.toolbox.router.get('/assets/(.*)', self.toolbox.cacheFirst, {  
  origin: 'https://api.example.com',  
  cache: {  
    networkTimeoutSeconds: 3,  
    name: 'imageCache',  
    maxEntries: 50,  
    maxAgeSeconds: 1 * 24 * 60 * 60  
  }  
});
```

- networkFirst 优先从网络请求，如果没网的话也可以用缓存里面
- cacheFirst 如有缓存则用缓存，否则进行网络请求
- fastest 缓存和网络并行请求，以优先返回的作出响应
- cacheOnly 始终从缓存中读取，否则失败
- networkOnly 始终进行网络请求，否则失败

“A **node module** to generate service worker code that will **precache specific resources** so they work offline.”


```
gulp.task('generate-service-worker', function(callback) {  
  var swPrecache = require('sw-precache');  
  var rootDir = 'app';  
  
  swPrecache.write(`${rootDir}/service-worker.js`, {  
    staticFileGlobs: [rootDir + '/**/*.{js,html,css,png,jpg}'],  
    stripPrefix: rootDir  
  }, callback);  
});
```

```
module.exports = {  
  staticFileGlobs: [  
    'app/css/**/*.css',  
    'app/**/*.html',  
    'app/images/**/*.*',  
    'app/js/**/*.js'  
  ],  
  stripPrefix: 'app/',  
  runtimeCaching: [{  
    urlPattern: /this\\.is\\.a\\.regex/,  
    handler: 'networkFirst'  
  }]  
};
```

sw-toolbox.precache VS sw-precache

- sw-toolbox.precache

不提供额外的缓存更新机制，需要设置匹配文件的请求并使用适当的处理程序的路由

- sw-precache

构建阶段可以检测任何本地资源是否已更改，并自动更新缓存的条目

T H A N K S
FOR YOUR WATCHING



OPEN ORIENTED

凹凸实验室