

# Offline Quickstart



# Situation in context

What problems do you face when connectivity is unreliable?

# Some of the issues



Credit: [Khaase](#) CC0

# Service worker solutions

## Problem

You click on a link and the page doesn't appear

## Solution

Cache the content

## Technology

Caching API



# Service worker solutions

## Problem

You submit a form and nothing happens

## Solution

Cache the data

## Technology

IndexedDB



# Service worker solutions

## Problem

When connectivity returns you lose all your data

## Solution

Cache and save data until connectivity is restored

## Technology

Background Sync



# Caching static assets

```
addEventListener('install', event => {  
  event.waitUntil(  
    caches.open('static-cache-v1')  
      .then(cache => {  
        return cache.addAll([  
          'offline/index.html',  
          'offline/main.js',  
          'offline/main.css'  
        ]));  
      })  
  });  
});
```



# Retrieving static assets from the cache

```
self.addEventListener('fetch', function(event) {  
  event.respondWith(  
    caches.match(event.request)  
      .then(response => {  
        return response ? response  
          : fetch(event.request);  
      })  
  )  
});
```





# Load the script via Service Worker

```
if ('serviceWorker' in navigator) { //1
  navigator.serviceWorker.register('service-worker.js',
    {scope: './'}) //2
  .then(function(registration) {
    console.log('Service worker successfully registered'); // 3
  })
  .catch(function(error) {
    console.log('Registration failed:', error); // 4
  });
} else {
  window.alert('Service Worker is not supported in this browser'); //5
}
```



Elements

Console

Sources

Network

Timeline

Profiles

Application

Security

Audits

Scratch JS

aXe

1

Application

Manifest

Service Workers

Clear storage

Storage

Local Storage

Session Storage

IndexedDB

Web SQL

Cookies

Cache

Cache Storage

Application Cache

Frames

top

Service Workers

☐ Offline

☐ Update on reload

☐ Bypass for network

☐ Show all

https://docs.google.com/spreadsheets/

Update

Push

Sync

Unregister

Source

[serviceworker.js?ouid=u73c96c31f0edba8c](#)

Received 8/31/2016, 12:23:04 PM

Status

#2091 activated and is running

stop

Clients

<https://docs.google.com/spreadsheets/d/10VPwwn0l7n-Rua0uoTJuBHqj73zY3ILDcQalH9pNPOg/edit#gid=0>

focus

https://docs.google.com/document/

Update

Push

Sync

Unregister

Source

[serviceworker.js?ouid=u73c96c31f0edba8c](#)

Received 9/1/2016, 9:23:07 AM

Status

#2133 activated and is running

stop

Google Developer Training

Progressive Web Apps Course Name - Lesson #

# Install to Homescreen via manifest.json

```
{  
  "name": "Demo Blog Application",  
  "short_name": "Demo Blog Application",  
  "start_url": "index.html",  
  "icons": [{  
    "src": "images/touch/icon-128x128.png",  
    "sizes": "128x128",  
    "type": "image/png"  
  }],  
  "background_color": "#3E4EB8",  
  "display": "standalone",  
  "theme_color": "#2E3AA1"  
}
```



# Lab overview

- Create service worker
  - Cache files
  - Intercept network requests
- Install service worker on index.html
  - Installation
  - Scope



# Lab steps

- Create service worker
  - Install event
  - Fetch event
- Install service worker on index.html
  - Installation
  - Scope



# References and sample applications

## General Information

- [Is ServiceWorker Ready?](#)
- [Mozilla Developers Network](#)
- [Introduction to service workers](#)
- [Fetch Event](#)
- [Your first push notifications web app](#)

## Sample Applications

- [IO 2106](#)
- [Trained to Thrill](#)
- [Chrome Dev Summit](#)
- [Push Demo](#)

