

Application Cache

HTML 5 Application Cache which allows us to cache the web application in client side.

Advantages:

1. HTML5 Application Caching allows us to provide **Offline browsing**, users can use the application when they're offline.
2. Caching content in the browser increases the **speed of application** and allows the resources to load faster
3. As browser will only download updated/changed resources from the server it will **reduced server load**.

```
<!DOCTYPE HTML>
<html manifest="demo.appcache">
...
</html>
```

Every page with the manifest attribute specified will be cached when the user visits it. If the manifest attribute is not specified, the page will not be cached (unless the page is specified directly in the manifest file).

Manifest File

The manifest file is a simple text file, which tells the browser what to cache and what to never cache.

The manifest file has three sections headers:

- **CACHE MANIFEST** - Files listed under this header will be cached after they are downloaded for the first time.
- **NETWORK** - Files listed under this header require a connection to the server, and will never be cached
- **FALLBACK** - Files listed under this header specifies fallback pages if a page is inaccessible

A manifest file needs to be served with the correct MIME-type, which is "text/cache-manifest" this must be configured on the web server.

CACHE MANIFEST: The first line, CACHE MANIFEST, is required:

CACHE: For all those files which needs to be cached.

```
CACHE MANIFEST
#comment
CACHE:
/Demo.css
/logo.gif
```

```
/Demo.js
```

NETWORK: The NETWORK section below specifies that the file "login.asp" should never be cached, and will not be available offline

```
NETWORK:
```

```
login.asp
```

FALLBACK: The FALLBACK section below specifies that "offline.html" will be served in place of all files in the /documents, in case an internet connection cannot be established

```
FALLBACK:
```

```
/ /offline.html
```

Note: The first URI is the resource, the second is the fallback.

Note:

Files mention in manifest file can be from another domain also

If the manifest or a resource specified in it fails to download, the entire cache update process fails. The browser will keep using the old application cache in the event of failure.

In **CHROME** we can see the list of items in AppCache using *chrome://appcache-internals/*

Updating the Cache

Once an application is cached, it remains cached until one of the following happens:

- The user clears the browser's cache
- The manifest file is modified.
- The application cache is programmatically updated

Once a file is cached, the browser will continue to show the cached version, even if you change the file on the server. To ensure the browser updates the cache, you need to change the manifest file.

In manifest file Lines starting with a "#" are comment lines, but can also serve another purpose. An application's cache is only updated when its manifest file changes. If you edit an image or change a JavaScript function, those changes will not be re-cached. Updating the date and version in a comment line is one way to make the browser re-cache your files.