Cache Engine

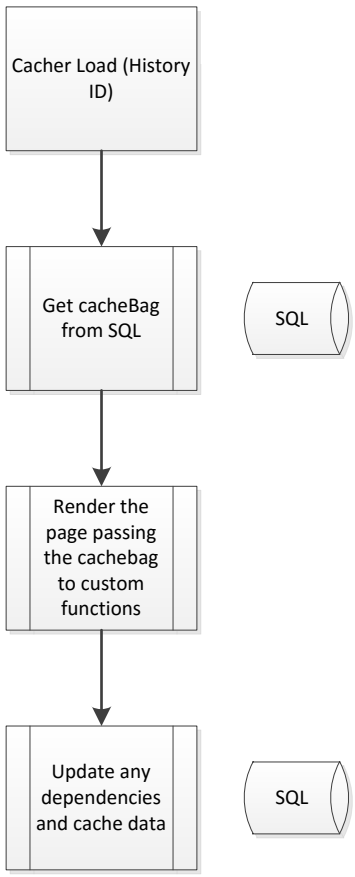
Introduction:

Design Goals:

- Faster loading of templates
- Less requests to SQL
- Easy to code for
- Allow easy use of data from multiple pages
- Must work with the “stateless” design of the CMS, meaning no mem caching.

The basic idea is eliminate the storm of SQL queries that take place when loading a page. We can cut down on the queries by figuring out what data to cache during a page render, so that on the next page load we can get all the cache data at the same time. This requires that we keep track of dependencies so that outdated cache data can be removed.

Very general idea:



What is in SQL

cacheData

Hash	Nvarchar(32)
Id	Int
dateTime	Datetime
cacheData	Image
Caller	Nvarchar(50)
isString	Nvarchar(4)

cachePageHashes

HistoryID	Int
Hash	Nvarchar(32)

cacheHashDependencies

Hash	Nvarchar(32)
DepHistoryID	Int

Cache Loader

The cache loader retrieves the cache data for a given history ID.

Cachebag Stucture

- cacheBag - struct
    - cache – struct
        - hash – MD5 string (KEY)
        - binData – struct
            - type
            - data
        - dependency Stack
    - dep stack - array
        - struct
            - dependency Stack – array
                - Dep
                - Type
            - funcName – string