Unit test cases : (refer to main.c for unit test case implementation . Only non DEBUG output is displayed here . To compile DEBUG use as

gcc -w -DDEBUG=1 file\_cache.h main.c )

1) Verify all files specified in file list are added to cache if not already present in cache. {input list : a1, b1}

***koshy@ubuntu:~/Desktop/C$ ./a.out***

***Starting file\_cache\_pin\_files***

***File a1 already exist in local file system***

***Cache count is : 1***

***File a1 successfully added to cache***

***File b1 already exist in local file system***

***Cache count is : 2***

***File b1 successfully added to cache***

***koshy@ubuntu:~/Desktop/C$***

2) Try to add a file already existing in cache and verify that cache detects appropriately. {input list : a1 , b1 , a1}

***koshy@ubuntu:~/Desktop/C$ ./a.out***

***Starting file\_cache\_pin\_files***

***File a1 doesn't exist in local file\_system. Creating new***

***Cache count is : 1***

***File a1 successfully added to cache***

***File b1 doesn't exist in local file\_system. Creating new***

***Cache count is : 2***

***File b1 successfully added to cache***

***File a1 already exist in cache***

***koshy@ubuntu:~/Desktop/C$***

3) Call file\_cache\_mutable\_file\_data() on a file which doesnt exist in cache and local file system and make sure that file is added to local file system as well as cache & contents are written only to buf and not to local file system.

***koshy@ubuntu:~/Desktop/C$ ./a.out***

***File is a1***

***File a1 doesn't exist in local file\_system. Creating new***

***Cache count is : 1***

***koshy@ubuntu:~/Desktop/C$***

4) Call file\_cache\_mutable\_file\_data() on a file existing in cache. call again file\_cache\_mutable\_file\_data(). Make sure second call to file\_cache\_mutable\_file\_data() succeeds only after first calls contents are written to local file system.

***koshy@ubuntu:~/Desktop/with\_out\_thread$ ./file\_cache***

***File to be changed is a1***

***File a1 doesn't exist in local file\_system. Creating new***

***Cache count is : 1***

***File to be changed is a1***

***Open success***

***Write success***

***koshy@ubuntu:~/Desktop/with\_out\_thread$***

5) Call file\_cache\_pin\_files() to pin a file to cache. Call file\_cache\_mutable\_file\_data() to write to cache buffer of the same file. unpin the file from cache using file\_cache\_unpin\_files().

***koshy@ubuntu:~/Desktop/C$ ./a.out***

***Starting file\_cache\_pin\_files***

***File a1 doesn't exist in local file\_system. Creating new***

***Cache count is : 1***

***File a1 successfully added to cache***

***File b1 doesn't exist in local file\_system. Creating new***

***Cache count is : 2***

***File b1 successfully added to cache***

***File to be changed is a1***

***File a1 exist in cache.***

***Copy file\_content to buffer***

***Open success***

***Write success***

***File a1 successfully unpinned***

***koshy@ubuntu:~/Desktop/C$***