3D5- Assignment 1 report

While creating the hash table code that I would be using for this assignment there were instances where I used some parts from the assignment skeleton such as the NAME_PROMPT, NEW_LINE_PROMPT and the load_file function.

In task 2 the hash function I opted to use was the djb2 hash function (http://www.cse.yorku.ca/~oz/hash.html)

When using the hash1 function provided in the assignment pdf 10 collisions were said to have occurred in my code. When using the djb2 hash function however, 8 collisions occurred, making the process of using djb2 slightly more beneficial than using the hash1 function.

Djb2 is said to be a better hashing function due to it assigning the starting unsigned long hash value to the value 5381 specifically the use of such in the hash function apparently resulting in less collisions. Djb2 is also optimised to handle hashing string values better than other methods

As I wasn't able to get my Task3 code running without it producing a segmentation fault or not showing an output altogether, I cannot say whether or not the use of double hashing would be an improvement over the use of linear probing in the case of my code. I can say however that due to its ability to reduce clustering that can arise with consecutive collisions while using linear probing, double hashing is often seen as the more effective option of the two.