constructor

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A destructor

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A function to search the hash table for a given n-mer sequence (returning a presence/absence Boolean value should be sufficient)

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A function to insert a given n-mer sequence into the hash table.

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A function to convert a given sequence to a Radix notation (use *double* or *unsigned int*data type to store the radix value)

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**A. (30 pts) Assess the impact of the hash table size:**

1. For each of your 4 hash table sizes, how many collisions did you observe while populating the hash?

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2. For each of your 4 hash table sizes, how long did it take you to populate the hash table? Do the timing results make sense (provide big O notation)?  Explain.

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**B. (30 pts) Searching speed**:

Q: How long did it take to search for every possible 16-character-long fragment of the *subject dataset* within the *query dataset*?

**A: The time taken to search for every possible 16-character is:** 2437.28s

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Q: How many such fragments did you find?

A: I found **848542890** fragments.

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Q: Print the first 10 fragments of the *subject dataset*that you found within the Query\_HT.

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