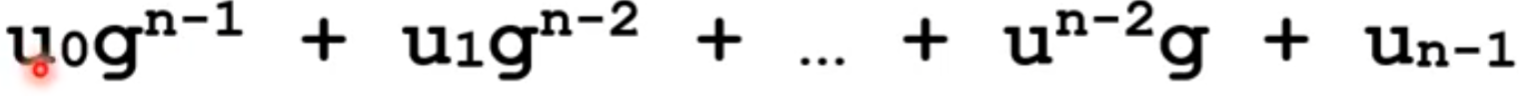
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Assignment 5.1

Hash Maps Questions

* 1. A hash function is used by taking a search key and mapping it to a specific index where a value is paired with it keeping a record of it. It also compresses the original value to a smaller value which makes them good for searching and data retrieval.

b) A hash function of a string can be written by the equation . u is a character in the string, u0 would be the first character of the string. The constant g is always 31 and to the power of n-1 is just the length of the string to get that character’s position.

c) A hash function is more efficient than a search key as the hash function will call directly to the data you are looking for whereas the search key will have to iterate thorough the keys to find a matching value.

d) Java uses the hashCode() function for hashing strings. This is used for hashing objects in java and returns an integer value that maps back to the original object.