Lab 9 LZW Compression Exercise

1. Read about LZW compression on the Wikipedia page.
2. Following the pseudo code on the write-up for Project 5, trace the steps involved in compressing and decompressing the following text:

BANANABANDBAN

Imagine your dictionary to be initialized with the ASCII codes of all characters from 0 to 255. It means that the first available slot for insertion is 256.

You can find a full list of ASCII codes here: <http://www.asciitable.com/>

Compression:

|  |  |  |  |
| --- | --- | --- | --- |
| Current Sequence | Next Character | Output Code | Extended Dictionary |
| NULL | B |  |  |
| B | A | 66 | 256: BA |
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Decompression:

|  |  |  |
| --- | --- | --- |
| Input Code | Output Sequence | New Dictionary Entry |
| 66 | B |  |
| 65 | A | 256:BA |
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