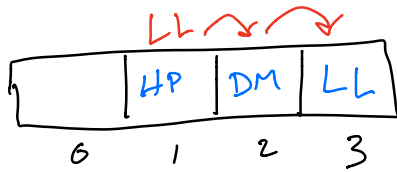


assume load factor threshold = 0.75



use linear probing
w/c = 1

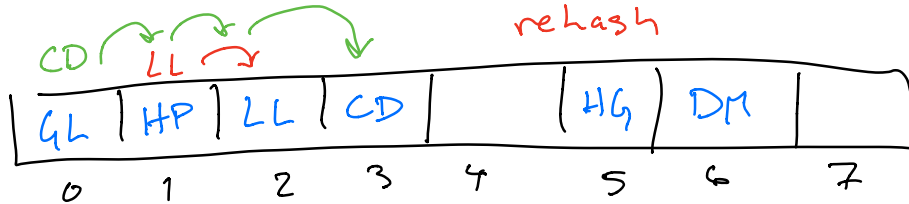
$h(\text{"Harry Potter"}) \rightarrow 1$

$h(\text{"Draco Malfoy"}) \rightarrow 2$

$h(\text{"Luna Lovegood"}) \rightarrow 1$ collision

$h(\text{"Gilderoy Lockhart"}) \rightarrow 0$ exceeds load factor threshold, expand & rehash

$$h(k) = (\text{charAt}(0) + \text{charAt}(1)) \% \text{len}$$



$h(\text{"Harry Potter"}) \rightarrow 1$

$h(\text{"Draco Malfoy"}) \rightarrow 6$

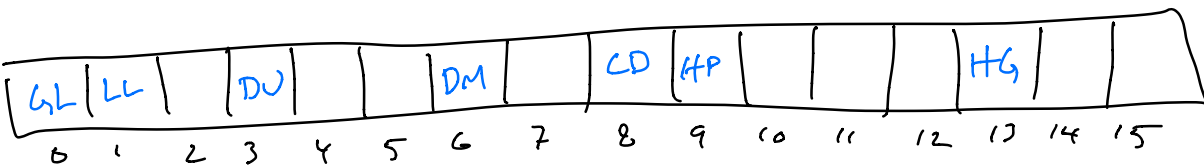
$h(\text{"Luna Lovegood"}) \rightarrow 1$ collision

$h(\text{"Gilderoy Lockhart"}) \rightarrow 0$

$h(\text{"Cedric Diggory"}) \rightarrow 0$ collision

$h(\text{"Hermione Granger"}) \rightarrow 5$

$h(\text{"Dolores Umbridge"}) \rightarrow 3$ exceeds load factor; expand & rehash



$HP \rightarrow 9$ $CD \rightarrow 8$
 $DM \rightarrow 6$ $HG \rightarrow 13$
 $LL \rightarrow 1$ $DU \rightarrow 3$
 $GL \rightarrow 0$

DONE.