2. (3 marks) In hashing, secondary clustering occurs when different keys have the same linear probing sequence in a hash table. Which strategy would you choose to effectively address this type of clustering. Explain your choice.

For removing secondary clustring effect we will use double hashing in which two hash function are there will given modulo which are relatively prime to each other. This will gives us more uniform distribution of hash table for eg.

$h_1(k) = k \bmod 11$

$h_2(k) = 8 - (k \bmod 8)$

due to $h_2(k)$ offset for $h_1(k)$ changes for different k but this does not occur in linear probing

2. (3 marks) In hashing, secondary clustering occurs when different keys have the same linear probing sequence in a hash table. Which strategy would you choose to effectively address this type of clustering. Explain your choice.

Double Hashing :
- Reduced clustering
- Efficient space utilization
- Deterministic : efficient way to resolve collisions.

Note: If the secondary hash function is poorly designed and leads to clustering itself. it may not provide significant improvements over linear probing.