



ಭಾರತೀಯ ಮಾಹಿತಿ ತಂತ್ರಜ್ಞಾನ ಸಂಸ್ಥೆ ರಾಯಚೂರು  
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**Homework 3**  
**Data Structures**  
**IIIT Raichur**

Your hash table size is 1009. You can use the random number generator to generate keys for the hashing.

1. Write a program to hash set of keys using the following hash functions and compare the number of collisions occur for
  - i) Division method
  - ii) Mid Square method
  - ii) Folding methods (pure folding, fold shifting, fold boundary)

Use a) Linear Probing and b) Chaining

2. Further write another program for the linear probing and use the following techniques to see how primary, and secondary clustering forms
  - a) Random Hashing
  - b) Quadratic probing
  - c) Double hashing or rehashing