1. Create a random iterator using the class random and use the if elif and else to perform different actions based on the number of rounds the loop takes to terminate.
2. Given a list of strings, find a single string that contains all of these as substrings while minimising the total length of the superstring.
3. Given a state transition machine, and a specific state, find if there is a path in the maching from the start state to the given state.
4. Given a single positive integer A and a list L of six other positive integers (the list may have duplicates), find an arithmetic expression using the elements of the list at most once each and only the operations +,-,\* and / to generate the  number A if possible, else return it is not possible.
5. Given a list of words over an alphabet and some random text consisting of words (words are separated by blank spaces), for every word that is not in the list, map it to the nearest word by using different notions/measures of error. Some possibilities could be neighbouring keys in a keyboard leading to typing error and others could be just distance between the typed word and all the legal words.
6. Write code to evaluate any formula written in propositional logic using the operations AND, OR, NOT, Implication and Equivalence. The code should be able to check whether a formula is legal (syntax check) and also evaluate the formula on any specific assignment of truth values to the propositional variables.
7. Create a Markov System simulator.
8. Create a deterministic finite automaton simulator.