PYTHON ASSIGNMENT III

A. Make pythonic solutions for each of the following data structure and algorithm problems.

a) Bubble Sort

b) Insertion Sort

c) Quick Sort

d) Merge Sort

e) Linear Search

f) Binary Search

g) Interpolation Search

h) Dijkstra's Algorithm

i) Tower of Hanoi problem for 'n' number of disks.

B. Create a console application for an IT Academy with the following features:

a) The academy program should have a fixed course of study.

b) If a new student is interested in the academy program the student can inquiry about the course of study.

c) Student Registration with Rs. 20000 (deposit). Students are allowed to pay in two installments with Rs. 10000 each.

d) Display all the student's information from the academy with their payments and remaining payments.

e) Update the student information if needed.

f) Delete the student information if he/she left the program.

g) Return the deposit amount (Rs. 20000) to the students after the successful completion of the course and check the balance.

Remember it should be a full feature CONSOLE APP. You can store the course of study and the student's detail in your preferred file format (.csv, .txt, etc).
Ignore the permissions for now. Anyone who runs the script is allowed to access all the features. Develop the app with OOP Approach.