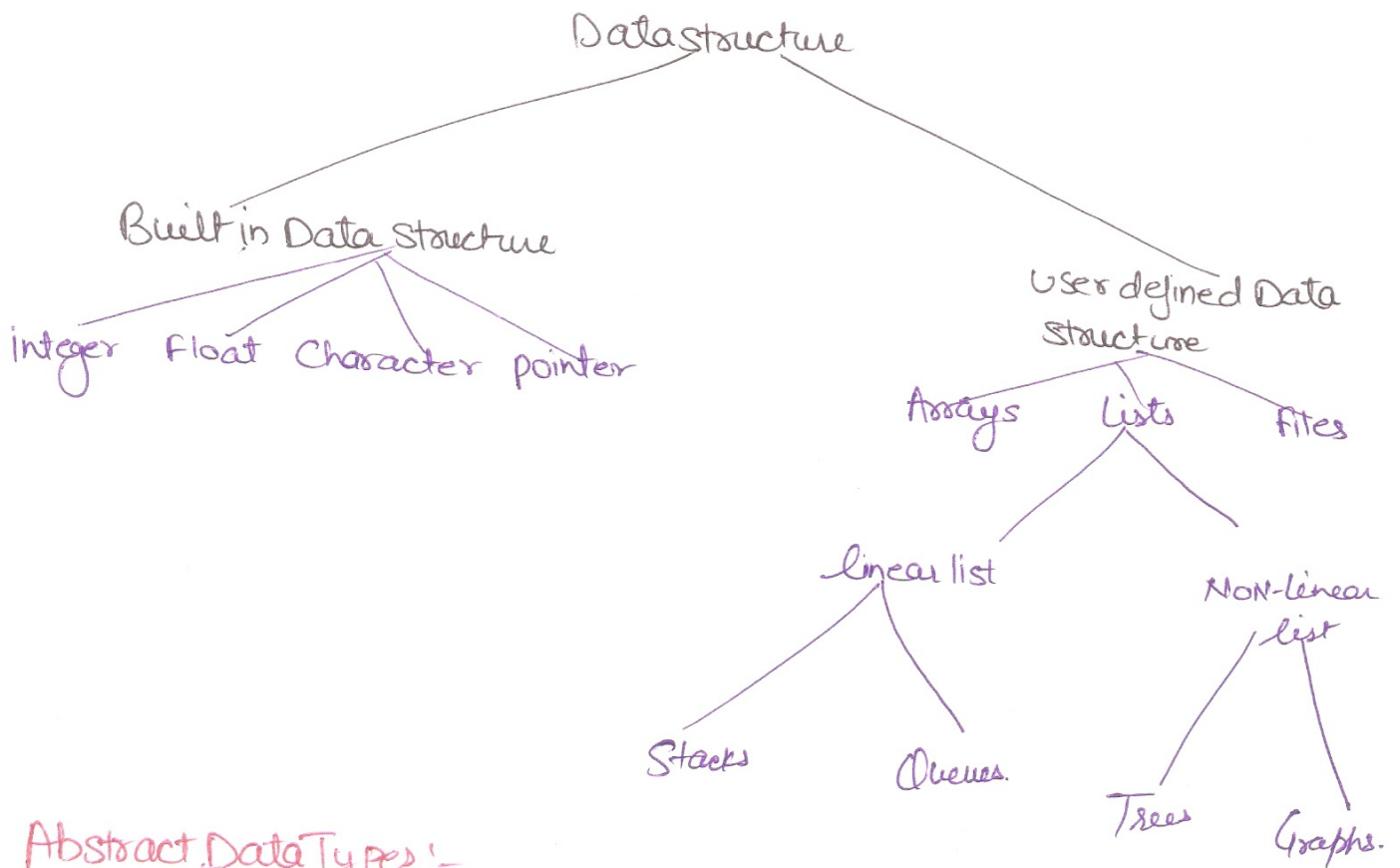


Introduction to Data Structure and Abstract Data Types.

A data structure is a particular way of organizing data in a computer so that it can be used efficiently for performing many operations.

or

The term data structures can be defined as a set of data items that collectively describe an object which can be manipulated by program.



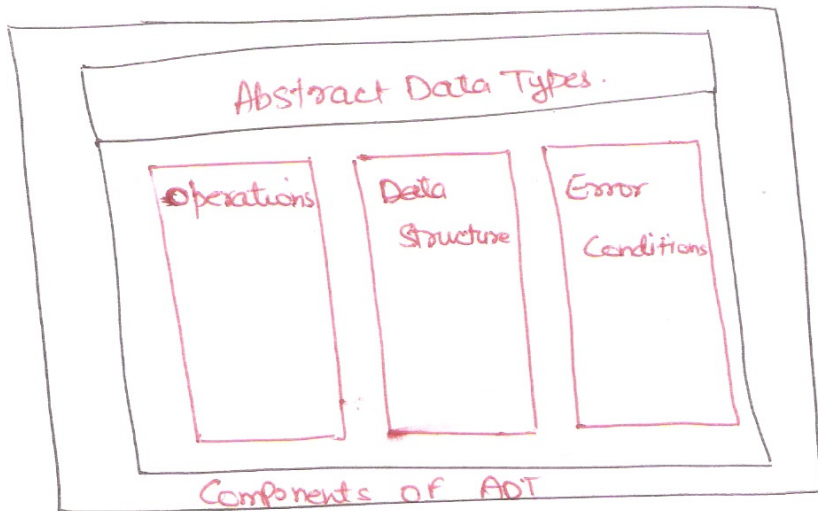
Abstract Data Types:-

An Abstract data type (ADT) combines the description of data structure, and associated operations

ADT Has following characteristics: →

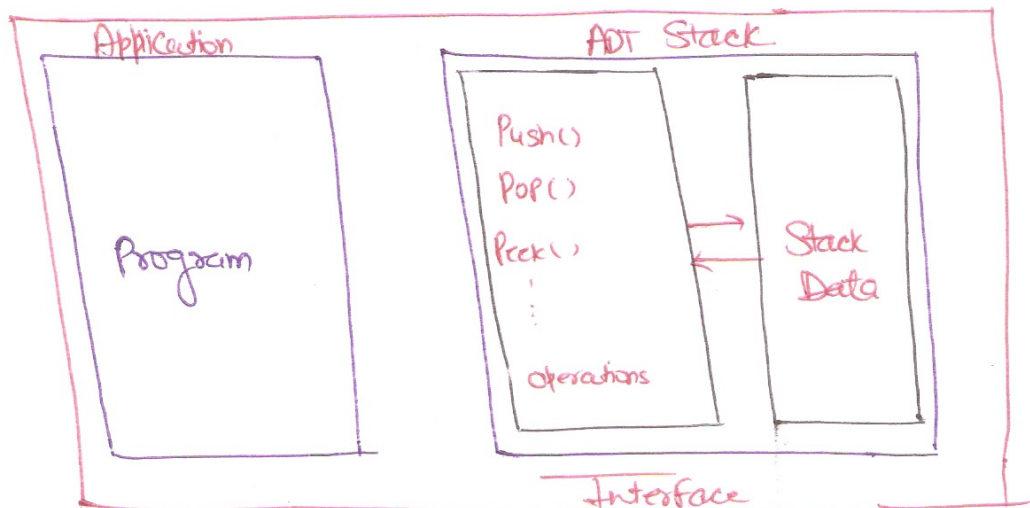
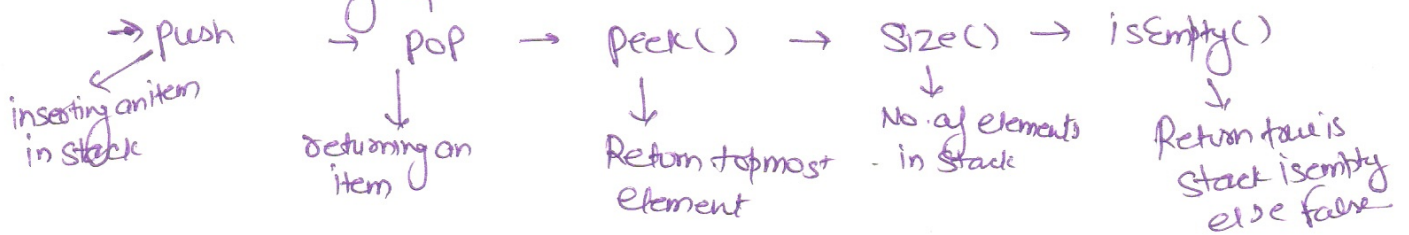
- i) Provides a description of element in term of data types
- ii) Defines relationship among individual elements.

(iii) Valid operations and parameters to be passed.



(iv) Error Conditions associated with the operations.

for Eg!:- An ADT stacks can be defined by packaging together the following operations



- Set of operations and elements of ADT data structure are manipulated through Interface
- Implementation of operations and data items are hidden from the application program.