

Date
26/10/2021

Lecture 1

Data Object

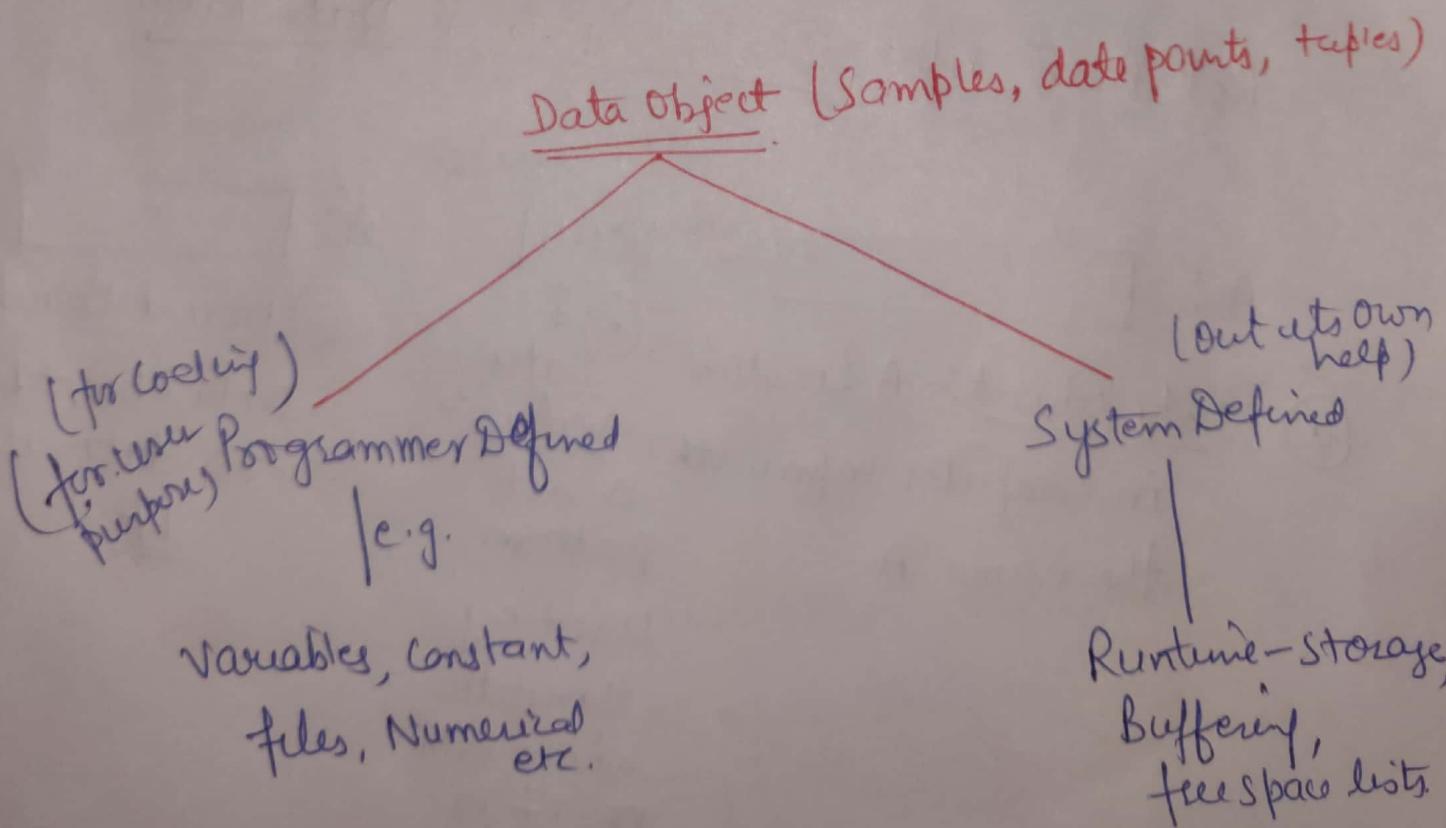


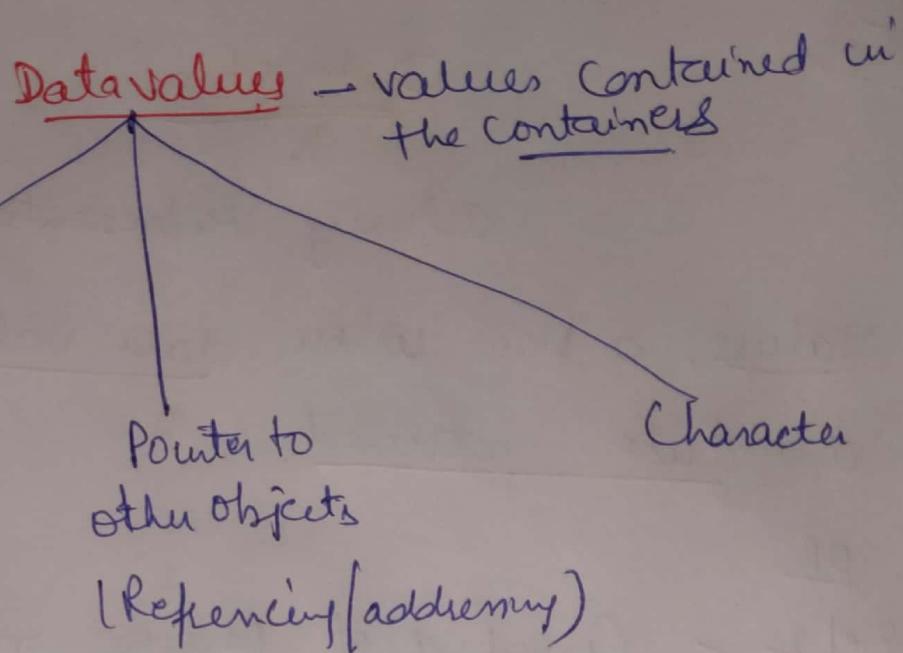
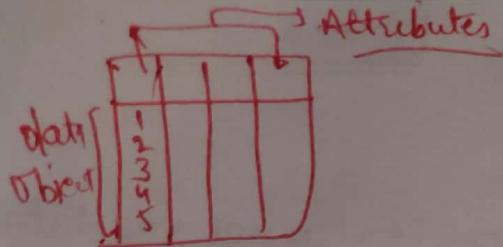
Actually represents a container for data
values, a place where data values may be stored
and later retrieved.

OR

Def 2 :- Grouping of one or more pieces of data in
the virtual computer.

Def 3 :- A location in memory with an assigned
name in the actual Computer.





Data object is usually represented as a storage in computer memory and a data value is represented by a pattern of bits.

Relation b/w Data objects & Data value :-

A :

(a) Data object :- A location in computer mem with the name A.

10001

(b) Data value :-
A bit pattern

used by translator whenever the no. 17 is used in the program

A :

(c) Bound Variable

Data object bound to data value

17

Data object is elementary if it contains a data value that is always manipulated as a single unit. ③

Data object can be a data structure if it is an aggregation of the data objects.

Eg:- Arrays

Binding & Attributes of Data Objects →

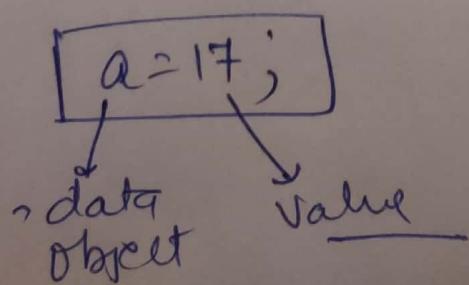
Association of data values & entities

① Type:- Associates the data object with the set of data values that the object may take.

int 'a'
data type
value.

② Location:- Binding of a storage location in memory where the data object is represented.

③ Value:- Binding usually result of an assignment operation.



(4)

⑤

Name:- Binding to one or more names by which the object may be referenced during the program execution usually setup by declaration and modified by subprogram calls & returns.

⑥

Component:- Binding of a data object to one or more data objects of which it is component is often represented by a pointer value.

