MRO Algorithm

- This algorithm is also known as C3 algorithm.
- Samuele Pedroni proposed this algorithm.
- It follows DLR(Depth First Left to Right)
  - i.e Child will get more priority than parent
  - Left Parent will get more priority than Right Parent.

MRO Algorithm

MRO(X)=X+Merge(MRO(P1),MRO(P2),...,Parent List)

Here we have to considered only immediate parents.

Head Element vs Tail Terminology

Assume C1,C2,C3,...are classes

In the List: C1C2C3C4....

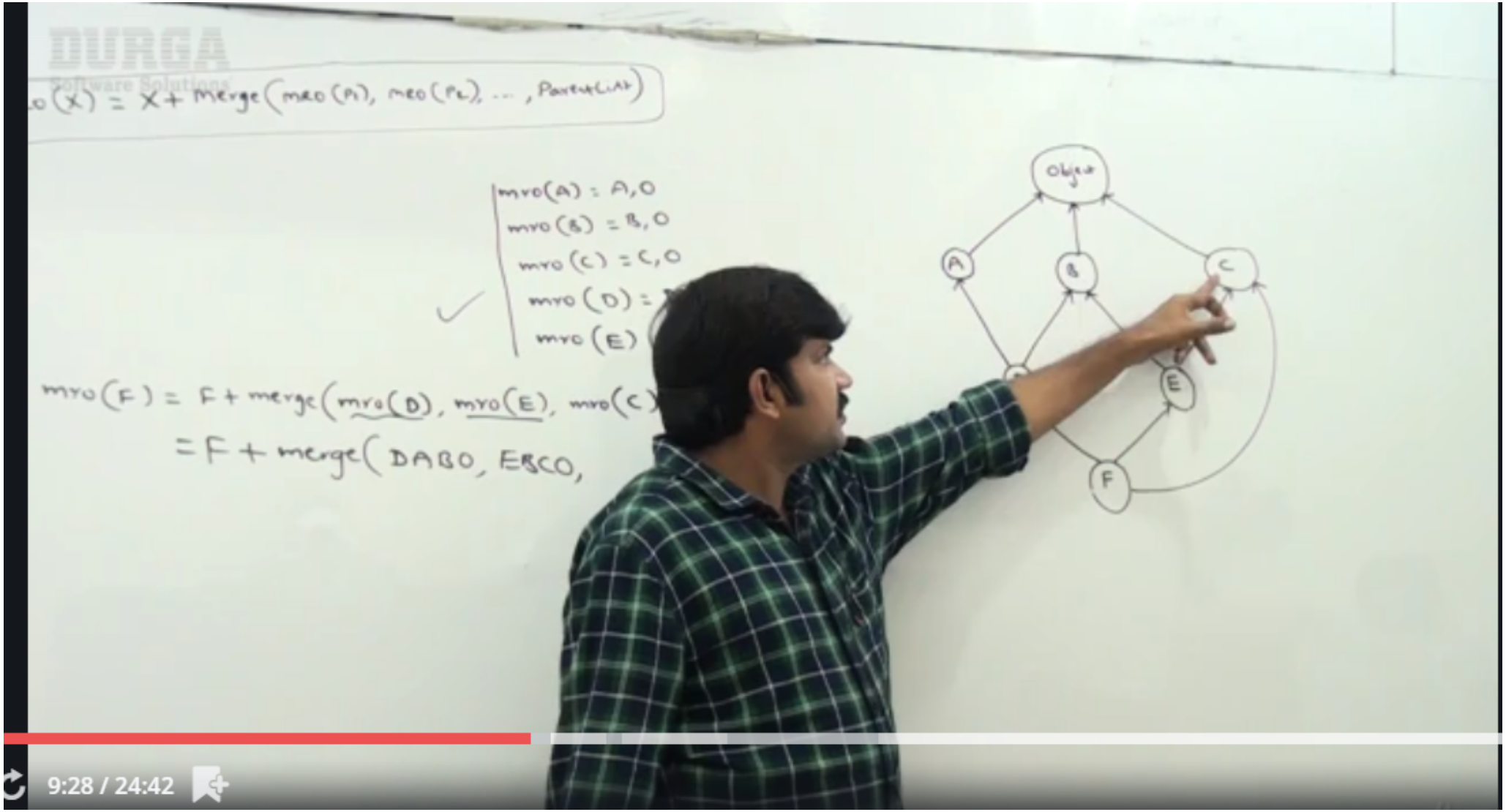
First element is considered as Head Element and Remaining is considered as Tail part.

Head Element: C1

Tail Part:C2C3C4...

How to find Merge

1. Take Head of first list.
2. If the head is not in the tail part of any other list , then add this head element to the result and remove it from all the lists.
3. If the head present in tail part of any other list, then consider head element of the next list and continue same process.


DURGA
Software Solutions
mro(A) : A, O
mro(B) = B, O
mro(C) = C, O
mro(F) = F + merge(mro(D), mro(E), mro(C)
= F + merge(DABO, EBCO,
Object
A
B
C
E
F
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$$mro(X) = X + merge(mro(P_1), mro(P_2), \ldots, ParentList)$$

- mro(A) = A, O
- mro(B) = B, O
- mro(C) = C, O
- mro(D) = D, A, B, O
- mro(E) = E, B, C, O

$$mro(F) = F + merge(mro(D), mro(E), mro(C), DEC)$$

$$= F + merge(DABO, EBCO, CO, DEC)$$