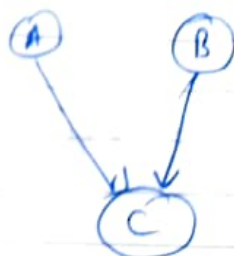


MRO

Single Inheritance



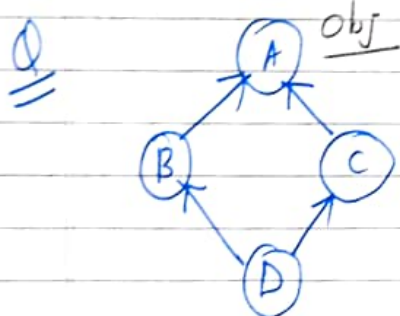
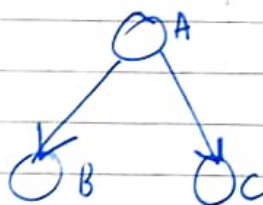
Multiple



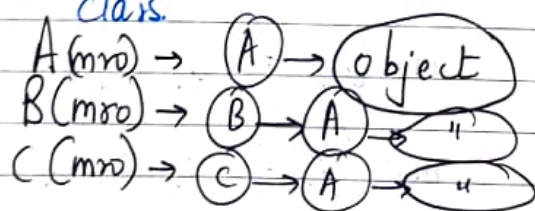
Multi level



Hierarchical Inheritance



object class is the parent class.



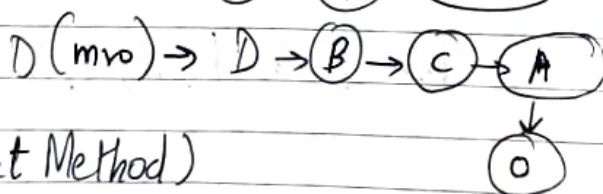
Q

```

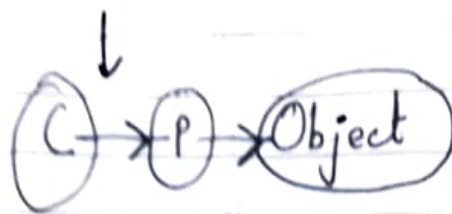
class P:
    def m1(self):
        print(Parent Method)
  
```

```

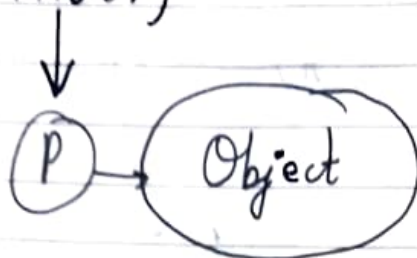
class C(P): pass
  
```



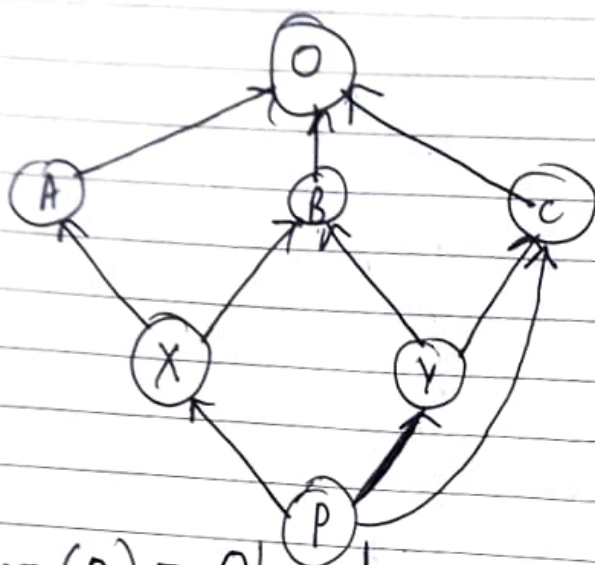
print (C.mro())



print (P.mro())



≡



$mro(O) = Object$

$mro(B) = B, O$

$mro(A) = A, O$

$mro(X) = X, A, B, O$

$mro(Y) = Y, B, C, O$

$mro(P) = \underline{P, X, Y, C, A, B, O}$

→ 3rd level & up
⇒ Use a formulae

Wrong if you execute this code

C3 Algo. \rightarrow Use it

Do not change order
always $\rightarrow L \rightarrow R$.

\rightarrow 3 parents

$$mro(P) = P + \text{Merge}(mro(X), mro(Y), mro(C), XYC)$$

\downarrow
parent list

$$mro(P) \Rightarrow P + \text{Merge}(XABO, YBCO, CO)$$

$$\Rightarrow P + X + \text{Merge}(ABO, YBCO, CO, XYC)$$

$$\Rightarrow P + X + A + \text{Merge}(BO, YBCO, CO, YC)$$

Ex: ABCDEF

Head Element $\rightarrow A$

Tail " $\rightarrow BCDEF$

$\Rightarrow P + X + A + Y + \text{Merge}$
Leave as all options are explored
again from 1st list

$$\Rightarrow P + X + A + Y + B + \text{Merge}(CO, BO, CO, C)$$

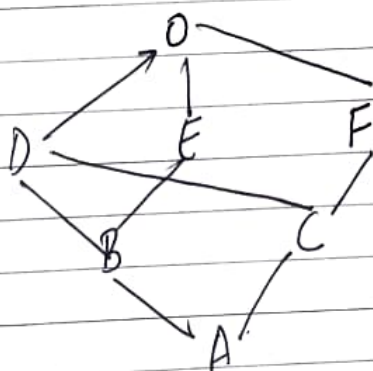
$$P + X + A + Y + B + C + \text{Merge}(O, O, O)$$

\rightarrow If first list head ele not present in the tail part of any other list then consider that ele. in the result & remove that ele. from all the lists

Final Answer $\Rightarrow P + X + A + Y + B + C + O$

$\Rightarrow PXAYBCO$

Q



$$mro(O) = O$$

$$mro(D) = D, O$$

$$mro(E) = E, O$$

$$mro(F) = F, O$$

$$mro(B) = BDEO$$

$$mro(C) = CDFO$$

$$mro(A) = A + \text{Merge}(BDEO$$

$$CDEFO + BC)$$

Classmate
Date
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⇒ A + merge (mrr(B), mrr(C), BC)

⇒ A + merge (BDEO, CDFO, BC)

⇒ A + B + merge (DEO, CDFO, C)

So ignore &
move to the next
list

⇒ A + B + ^{+C+} merge (DEO, DFO)

⇒ A + B + (+D) + merge (EO, FO)

⇒ A + B + (+D) + E + (O, FO)

⇒ ABCDE + F + Merge (O, O)

⇒ ABCDEFO