Diamond Problem:

It is a problem which occurs in Multipath Inheritance.

So, taking the example:

A

D

C

B

when class D tries to access member of class A, it can access it through both B&C, since it can access through both paths, the compiler gets confused and cannot decide which path to choose, this is called Diamond Problem (Ambiguity Problem).

**Solution:** By using the keyword “virtual” while inheriting A for Both B and C.

class B : virtual public A

class C : virtual public A

By doing this instead of creating multiple of copy of A (in B&C) it creates a single instance of A. Since both paths would be leading to that single instance of A, there is no confusion, which ultimately solves the Diamond Problem.