Answer on Question# 50418 - <Programming> - <C++>

Program

dogs.cpp

```
#include <iostream>
#include <conio.h>
#include <string>
#include <cstdlib>

using namespace std;
class Dog
{
    private:
    string breed;//fields for a breed (for example, "Labrador")
    string EyeColor;//eye color
    public:
        Dog(string           Breed="",string           eyeColor="")
{breed=Breed;EyeColor=eyeColor;}
        //Include extraction and insertion operators.
        string getBreed() {return breed;}
        string setBreed(string Breed) {breed=Breed;}
        string getEyeColor() {return EyeColor;}
        string setEyeColor(string eyeColor) {EyeColor=eyeColor;}
        friend  Dog operator *(Dog d1,Dog d2);
        void   display(){cout<<"Breed:   "<<breed<<";   eye   color:
"<<EyeColor<<endl;}
};

Dog operator *(Dog d1,Dog d2)
{
    Dog newDog;
    if(d1.getBreed()==d2.getBreed())
        newDog.setBreed(d1.getBreed());
    else
        newDog.setBreed("Mixed");
    int k=rand()%2;
    if(k==0)
        newDog.setEyeColor(d1.getEyeColor());
    else
        newDog.setEyeColor(d2.getEyeColor());
    return Dog(newDog.getBreed(),newDog.getEyeColor());
}

int main()
{
    Dog d1("Labrador","Yellow"),
        d2("Labrador","Green"),
        d3("Dog","Yellow"),
        d4("Mops","Black");
   cout<<"dog #1: ";d1.display();
    cout<<"dog #2: ";d2.display();
    Dog dr1;
```

```
    dr1=d1*d2;
    cout<<"Result of pair dog: ";dr1.display();

    cout<<"dog #3: ";d3.display();
    cout<<"dog #4: ";d4.display();
    cout<<"Result of pair dog: ";(d3*d4).display();

    getch();
    return 1;

}
```

Example of execute program:

```
dog #1: Breed: Labrador; eye color: Yellow
dog #2: Breed: Labrador; eye color: Green
Result of pair dog: Breed: Labrador; eye color: Yellow

dog #3: Breed: Dog; eye color: Yellow
dog #4: Breed: Mops; eye color: Black
Result of pair dog: Breed: Mixed; eye color: Black
```