

Câu 1:

- a. Added methods: Bike(), Bike(const Bike& cpy), ~Bike()

```
class Bike
{
private:
    char* brand;
public:
    virtual void move(int t1)
    {
        cout << brand << ": " << t1 * 12 << " ";
    }

    Bike()
    {
        brand = new char[20];
        strcpy_s(brand, 20, "Volkswagen");
    }

    Bike(const Bike& cpy)
    {
        brand = new char[strlen(cpy.brand) + 1];
        strcpy_s(brand, strlen(cpy.brand) + 1, cpy.brand);
    }

    ~Bike()
    {
        delete[] brand;
    }
};
```

- b. Output: Volkswagen: 48 Volkswagen: 48

Because Bike::move(int t1) is a virtual method. So that's why when an EBike (which is a derived class of Bike) object is created, it has its own EBike::move(t2 * 2) overrides the one from base class (Bike class).

Therefore if t1 = 2, then it turns to EBike::move(2 * 2), then the output is 48.

Because EBike is a derived class of Bike, when an EBike object is created, then the default constructor of base class Bike is called. Therefore, the name of EBike is the original in Bike's default constructor "Volkswagen".

- c. Class is a blueprint of an object, represents all members of a group of objects. Object is an instance of a class (the same with variables in a specific data type) A class defines attributes and behaviors, all the objects created from this class will possess those. In short words: Objects are created from Class.
Classes in previous example: Bike, EBike.
Objects in previous example: brand.