

# Test 1 option 1

The task must be completed in the VS 2019 environment.

For given class student create a parametrized constructor, copy constructor, destructor, overload operators =, << . Operator << inserts class members in *cout stream* and operator >> extracts data from *cin stream* and *assigns* to class members.

Use operator *new* to allocate memory for name and surname text arrays.

```
class student
{
    char *name;
    char *surname;
    int birth_year;
public:
};
```

Your class must work properly in the follow code:

```
int main()
{
    student * pst[3];

    try
    {
        pst[0] = new student ("John", "Smith ", 2001);
        pst[1] = new student ("Agata", "Cristi", 2002);
        pst[2] = new student ("James", "Bond", 1999);
    }
    catch (bad_alloc)
    {
        // write your code
    }

    for (int i = 0; i < 3; ++i)
        cout << *pst[i];

    // swap the first and third elements of the array
    student tmp((char *)("unknown"), (char *)("unknown"), 0); //temporary object
    tmp = *pst[0];
    *pst[0] = *pst[2];
    *pst[2] = tmp;

    for (int i = 0; i < 3; ++i)
        cout << *pst[i];

    //test input of data.
    cin >> tmp;
    cout << tmp;

    for (int i = 0; i < 3; ++i)
    {
        delete pst[i];
        pst[i] = NULL;
    }

    system("pause");
    return 0;
}
```