

OOP as it Should Be



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Mohammed Abu-Hadhoud

MBA, PMOC, PgMP®, PMP®, PMI-RMP®, CM, ITIL®, MCPD, MCSD



حقوق النشر محفوظة، أسعار الكورسات في المنصة هي أسعار
رمزية جدا، ارجو عدم نشر هذه الوثيقة لان نشرها سيمنعنا من
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ارجو عدم استخدام هذه الوثيقة من غير وجه حق لأنك ستحرم الاف
الناس من التعلم

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```
#include <iostream>

using namespace std;

class clsPerson
{
private:
    int _ID;
    string _FirstName;
    string _LastName;
    string _Email;
    string _Phone;

public:
    clsPerson(int ID, string FirstName, string LastName, string
Email, string Phone)
    {
        _ID = ID;
        _FirstName = FirstName;
        _LastName = LastName;
        _Email = Email;
        _Phone = Phone;
    }

    //Read Only Property
    int ID()
    {
        return _ID;
    }

    //Property Set
    void setFirstName(string FirstName)
    {
        _FirstName = FirstName;
    }

    //Property Get
    string FirstName()
    {
        return _FirstName;
    }
}
```



```
//Property Set
void setLastName(string LastName)
{
    _LastName = LastName;
}

//Property Get
string LastName()
{
    return _LastName;
}

//Property Set
void setEmail(string Email)
{
    _Email = Email;
}

//Property Get
string Email()
{
    return _Email;
}

//Property Set
void setPhone(string Phone)
{
    _Phone = Phone;
}

//Property Get
string Phone()
{
    return _Phone;
}

string FullName()
{
    return _FirstName + " " + _LastName;
}
```



Function Overriding

```
void Print()
{
    cout << "\nInfo:";
    cout << "\n_____";
    cout << "\nID      : " << _ID;
    cout << "\nFirstName: " << _FirstName;
    cout << "\nLastName : " << _LastName;
    cout << "\nFull Name: " << FullName();
    cout << "\nEmail   : " << _Email;
    cout << "\nPhone   : " << _Phone;
    cout << "\n_____ \n";

}

void SendEmail(string Subject, string Body)
{
    cout << "\nThe following message sent successfully to
email: " << _Email;
    cout << "\nSubject: " << Subject;
    cout << "\nBody: " << Body << endl;

}

void SendSMS(string TextMessage)
{
    cout << "\nThe following SMS sent successfully to phone: "
<<_Phone;
    cout << "\n" << TextMessage<<endl;
}

};
```



```
class clsEmployee : public clsPerson
{
private:
    string _Title;
    string _Department;
    float _Salary;

public:
    clsEmployee(int ID, string FirstName, string LastName, string
Email, string Phone, string Title, string Department, float Salary)
        : clsPerson(ID, FirstName, LastName, Email, Phone)
    {
        _Title = Title;
        _Department = Department;
        _Salary = Salary;
    }

    //Property Set
    void setTitle(string Title)
    {
        _Title = Title;
    }

    //Property Get
    string Title()
    {
        return _Title;
    }

    //Property Set
    void setDepartment(string Department)
    {
        _Department = Department;
    }

    //Property Get
    string Department()
    {
        return _Department;
    }
}
```



Function Overriding

```
//Property Set
void setSalary(float Salary)
{
    _Salary = Salary;
}

//Property Get
float Salary()
{
    return _Salary;
}

void Print()
{
    cout << "\nInfo:";
    cout << "\n-----";
    cout << "\nID      : " << ID();
    cout << "\nFirstName : " << FirstName();
    cout << "\nLastName  : " << LastName();
    cout << "\nFull Name : " << FullName();
    cout << "\nEmail    : " << Email();
    cout << "\nPhone    : " << Phone();

    cout << "\nTitle      : " << _Title;
    cout << "\nDepartment: " << _Department;
    cout << "\nSalary    : " << _Salary;

    cout << "\n-----\n";
}

};

int main()
{
    clsEmployee Employee1 ( 10, "Mohammed", "Abu-
Hadhoud", "A@a.com", "8298982", "CEO", "ProgrammingAdvices", 5000);

    Employee1.Print();

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