|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Feature** | **Comment** | | **Example (optional)** | |
| Contract Usage | | Concrete classes implement interfaces, which specify their functionality. | **Trunk.OpenPOS.OpenPOSModules.Sales.Services**:  CashupService and ICashupService |
| Code formatting | | Well-formatted code, with proper indentations.  The methods in the interfaces are seperated into groups based on function.  Fields are well encapsulated and made readonly if possible, proper placement of members private fields first followed by methods (no constructor or properties are needed in specific class). | - |
| Old code practices | | Usage of underscore variables as private fields. | **Trunk.OpenPOS.OpenPOSModules.Sales.Services**:  ProductService.cs  ISession \_session; |
| Bad formatting | | An If statement is used without curly brackets depicting it’s scope. | **Trunk.OpenPOS.OpenPOSModules.Sales.Services**:  ProductService.cs  if (category == null)  return null; |
| **Overall comment** | | Overall well writen code with minor mistakes. Interfaces are employed the code is well formated and proper inheritance is implemented. | |

**01 Good Code.**

**02 Bad Code.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Feature** | **Comment** | | **Example (optional)** | |
| Poor OOP | | Multiple Classes in the same file. Lack of access modifiers for fields. | Trangsuc.Models.Cart |
| Code formatting | | Improper indentation, poor formating of code. | Trangsuc.Models.Cart |
| Bad naming | | Poor names for variables | Trangsuc.Models.Cart  **Ex:**  List<CartLine> dssanpham  string masp |
| **Overall comment** | | Poorly written code, with bad formatting poor naming of variables and broken OOP principles. | |

**03 Improving Code Quality.**

|  |  |  |
| --- | --- | --- |
| **Feature** | **Comment** | **Improvents** |
| Code comments written in Vietnamese | The comments could not be understood by many programmers | Rewrite the comments in English |
| Unhelpful / meaningless variable names | Some variables are named inappropriately – tt, vmp, dssanpham, soluong. | Change variables:  tt -> numberOfClients  soluong ->Quantity |
| Lack of access modifiers | A lot of the fields lack access modifiers :  ServiceHoadonClient dbhoadon  ServiceNguoidungClient db | Add access modifiers:  Private ServiceHoadonClient dbhoadon  Private ServiceNguoidungClient db |
| Bad indentation | Code is not well formatted, random indentations of different lines. | Format code properly with an indentation of 1 Tabulation for all code in a scope. The indentation should be the same for all lines in the same scope. |
| Multiple Classes in the same file | Multiple classes are declared as public in the same file. | Extra classes should be extracted into their own files, and their logic should be seperated. |