Programming Focus Area Hands On

Instructions to candidates:

1. Follow the class diagram strictly. Read the problem statement, functionality and the other details provided carefully and implement the solution
2. Use case sensitive string comparison wherever applicable
3. Do not delete the project and files provided to you for assessment
4. Do not remove/modify the namespaces in the code provided to you through Visual Studio
5. Do not modify the code under the region "Do Not Modify"
6. Do not modify the signature of methods under the region "Do Not Modify Signature"
7. Code submitted with compilation errors may not get evaluated

Guidelines:

1. The verify option checks the code only for structural correctness as per the requirements in the given problem statement. Please ensure that your code is logically correct according to the given problem statement before submitting.

Common errors which might lead to non-evaluation of code:

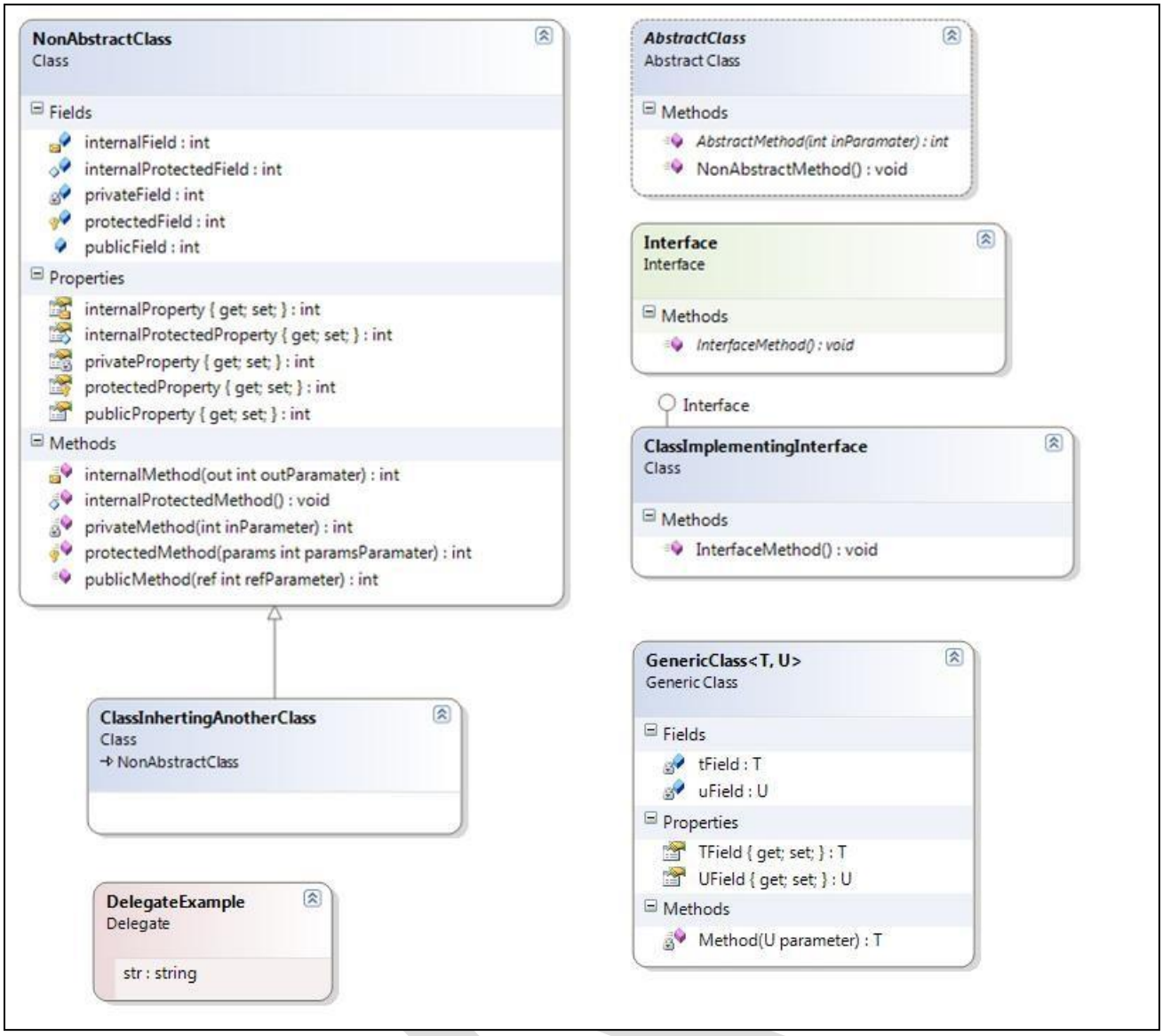
1. Removal/modification of namespace name
2. Improper/partial implementation of properties
3. Infinite loops/infinite recursive calls in the code
4. Improper constructor prototype or definition
5. Modification of code under the region "Do Not Modify"
6. Modification of signatures of methods under the region "Do Not Modify Signature"
7. Any other class diagram violation

NOTE: NOT adhering to the above instructions and guidelines may lead to drastic reduction in your score even if the code is executing without any errors

Understanding Class Diagram:

This document makes use of class diagram generated by Visual Studio 2010 to depict the class structure. Please use the following example to understand how various elements are represented in a class diagram used in this document. The name of the programming element indicate the type of element.

Please note that static elements are not indicated in class diagram of this document and are notified separately in the problem statement, if applicable.



WISH YOU ALL THE BEST

Problem Statement

Students have to develop a Payroll Management System

General Instructions

1. Use case-sensitive comparisons wherever applicable.

PART - 1

[10 Marks]

Problem Description:

Company have Employees of various designations. Information such as Id, Name, Department, Designation, Salary.

Use your debugging skills and rectify all the errors in order to follow the class diagram and business rules below.

1. The class Employee will have static member empID whose initial value will be 1001 and is used as generator for new employee.
2. The parameterized constructor should assign the value of other data members- Name, Department, Designation and Salary.
3. Employee should have method SetAllowance() which will set the allowance as 20% of sal to Manager designation and 10% to all other designations and add this allowance to Salary of employee.
4. Employee class should have ToString() to describe Employee Details and Properties to handle individual member variables.

Class Employee
empID : static int Name: string Department: string Designation: string Salary: double
EmpID{set,get}: int EmpName{set,get}: string Dept{set,get}: string Desg{set,get}: string Sal{set,get}: double
Employee() Employee(string name, string dept, string desg, double sal) SetAllowance(): void

Execution: Write TestEmployee class with Main(), Create different employees with different designations, supply their details, show the difference in salaries after adding allowances based on designations in output.