

## PT2

Duration : 85 minutes

Develop manage employee of a company OOP application with following components and requirements:

### 1. Create MVC console application in NetBean:

- a. Define class Employee with following attributes with constraints below and methods(4.5 marks):
  - + EmployeeID, Name, DoB(Date of birth), salary
  - + Check the NV code in the format "Emp000"
  - + Check date of birth in correct format "dd/MM/yyyy"
  - + Income tax calculation method according to the formula...
  - + Display Employee information according to the form:  
ID | Name | DOB | Salary | Tax
  - + Implement Comparable, compare according to salary:
  - + Constructors, get/set(), toString()
  - + Method calculate personal tax:
    - o if salary Under 9 million: do not pay personal tax
    - o if salary From 9-15 million: pay 10% salary
    - o if salary Over 15 million: pay 12% salary
- b. Define class Company with following attributes and methods: ( 2.5 marks)
  - + Store list of Employee by Salary
  - + Read text file to load data for Company– company.txt, check Date of birth and EmployeeID if wrong data skip do not add into List.
  - + Search Employee by different criteria
- c. EmployeeApp class to run the program: (3 marks)
  - + Use the Menu class to run program from a menu of 5 items: List, Search, Sort by Salary, Display incomes, Quit
  - + When selecting the search function, it allows arbitrary searching from the search menu by ID, Name, DOB, Tax

Hint: An abstract Menu class is provided for use in the application. Override method execute()

**Note:** This class allows interaction with user IO from console.

### 2. Technical requirements:

- + Create package **model** for Employee and Company class, **view** for Menu and **controller** for EmployeeApp class.
- + User interface as sample images below.

## Employee Management System

- 
- 1.List all Employee
  - 2.Income of Employee
  - 3.Employee Search
  - 4.Sort Employee by Salary
  - 5.Exit
- 

Enter selection..1

List of Employee

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Emp001		Nguyen Van Minh		12/01/1995		6000000.00	0.00
Emp002		Pham Minh Thang		02/11/1900		10000000.00	1000000.00
Emp003		Doan Minh Tri		20/10/2000		15000000.00	1500000.00
Emp004		Doan Thi Mai		25/05/2010		21000000.00	2520000.00
Emp005		Ly Thuong Kiet		30/10/2020		21000000.00	2520000.00
Emp006		Tran Nam Anh		03/09/2015		29000000.00	3480000.00
Emp007		Tran Minh Nam		02/10/2019		27000000.00	3240000.00

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Total : 7

## Employee Management System

- 
- 1.List all Employee
  - 2.Income of Employee
  - 3.Employee Search
  - 4.Sort Employee by Salary
  - 5.Exit
- 

Enter selection..2

Emp001		Nguyen Van Minh		12/01/1995		6000000.00	0.00	6000000.00
Emp002		Pham Minh Thang		02/11/1900		10000000.00	1000000.00	9000000.00
Emp003		Doan Minh Tri		20/10/2000		15000000.00	1500000.00	13500000.00
Emp004		Doan Thi Mai		25/05/2010		21000000.00	2520000.00	18480000.00
Emp005		Ly Thuong Kiet		30/10/2020		21000000.00	2520000.00	18480000.00
Emp006		Tran Nam Anh		03/09/2015		29000000.00	3480000.00	25520000.00
Emp007		Tran Minh Nam		02/10/2019		27000000.00	3240000.00	23760000.00

# Employee Management System

- 1.List all Employee
- 2.Income of Employee
- 3.Employee Search
- 4.Sort Employee by Salary
- 5.Exit

Enter selection..3

EmployeeSearching

- 1.Find by ID
- 2.Find by DOB
- 3.Find by tax

Enter selection..1

Enter EmployeeID:Emp003

Searching Result

Emp003	Doan Minh Tri	20/10/2000	15000000.00	1500000.00
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Total : 1

EmployeeSearching

- 1.Find by ID
- 2.Find by DOB
- 3.Find by tax

Enter selection..3

Searching Result

Emp002	Pham Minh Thang	02/11/1900	10000000.00	1000000.00
Emp003	Doan Minh Tri	20/10/2000	15000000.00	1500000.00
Emp004	Doan Thi Mai	25/05/2010	21000000.00	2520000.00
Emp005	Ly Thuong Kiet	30/10/2020	21000000.00	2520000.00
Emp006	Tran Nam Anh	03/09/2015	29000000.00	3480000.00
Emp007	Tran Minh Nam	02/10/2019	27000000.00	3240000.00

Total : 6

## Employee Management System

- 1.List all Employee
- 2.Income of Employee
- 3.Employee Search
- 4.Sort Employee by Salary
- 5.Exit

Enter selection..4

Sorted employee

Emp001		Nguyen Van Minh		12/01/1995		6000000.00		0.00
Emp002		Pham Minh Thang		02/11/1900		10000000.00		1000000.00
Emp003		Doan Minh Tri		20/10/2000		15000000.00		1500000.00
Emp004		Doan Thi Mai		25/05/2010		21000000.00		2520000.00
Emp005		Ly Thuong Kiet		30/10/2020		21000000.00		2520000.00
Emp007		Tran Minh Nam		02/10/2019		27000000.00		3240000.00
Emp006		Tran Nam Anh		03/09/2015		29000000.00		3480000.00

Total : 7

**Notice: Student must strictly follow all requirements as describe above for marking,  
Any modification the requirement detail is not allowed and will get no mark!**