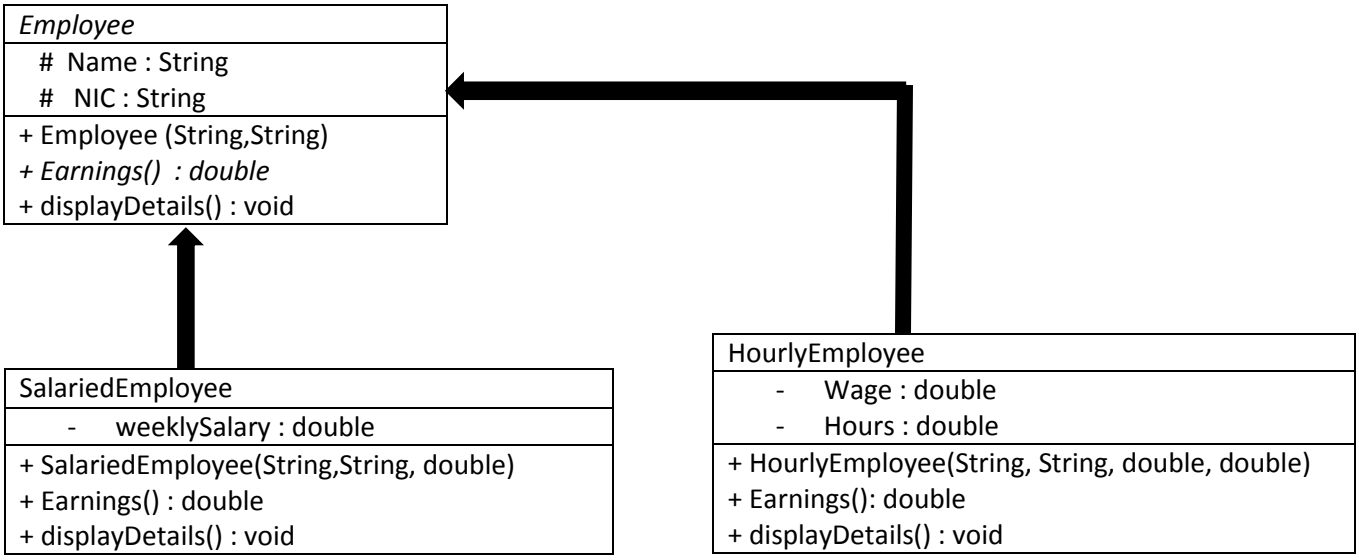
Task no.1

Write a program in java to create an "Employee" abstract class. Also create "SalariedEmployee" and "HourlyEmployee" classes which will inherit the "Employee" superclass.

- Make sure that the salary per hour is given through the constructor of both the classes.
- The SalariedEmployee works for 8 hours everyday and HourlyEmployee works for 12 hours a day.
- Calculate the weekly salary of the "SalariedEmployee" and daily wage of the "HourlyEmployee"

Details of the JAVA code are represented through following UML Class diagram.



Reference Table:

	Earnings()	displayDetails()
Employee	Abstract	Print Name, NIC
Salaried Employee	Weekly Salary	Print Name, NIC, Earnings

HourlyEmployee	If (hours < 40)
	Wage * hours
	Else
	{
	40 * wage + (hours – 40) * wage * 1.5
		Print Name, NIC, Hourly Wage, Hours Worked, Earnings

Task no.2

In this java program, create a "BankAccount" base class with the minimum required data as described in the UML diagram. Also create two classes "CheckingAccount" and "SavingAccount" which inherit the class "BankAccount".

- Both the "CheckingAccount" and "SavingAccount" classes should take the name of their depositor and deposit amount via their constructor.
- "SavingsAccount" will have a interest rate of 5.50% on deposits
- "CheckingAccount" will have a fee of 2% on withdrawals

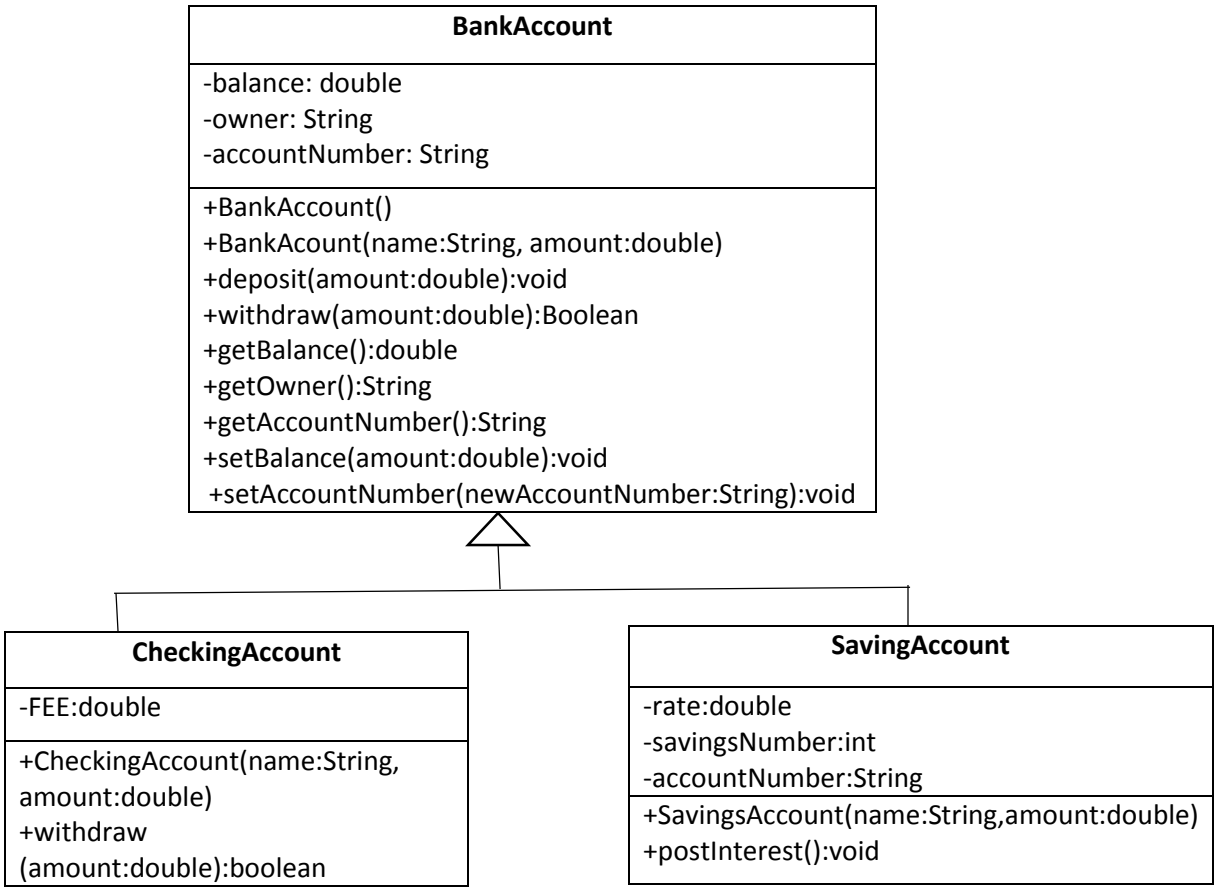
In this program given,

Checking Account:

- FEE is a static constant that represents the cost of clearing one check. Set it equal to 15 cents.
- Write a method, withdraw, that overrides the withdraw method in the superclass. This method should take the amount to withdraw, add to it the fee for check clearing, and call the withdraw method from the superclass.

Saving Account:

- It should contain an instance variable called rate that represents the annual interest rate. Set it equal to 2.5%.
- Write a method called postInterest that has no parameters and returns no value. This method will calculate one month's worth of interest on the balance and deposit it into the account.



Task no.3

A university consists of departments. Departments are located in one or more buildings. One building acts as an administration. Each department has a manager who is hired from the group of employees.

Your task is to model the system for the university.

- Draw a class diagram which consists of all the classes in your system their attributes and operations, relationships between the classes, multiplicity specifications, and other model elements that you find appropriate.
- After class diagram, generate a java code from it.