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**ITS 66704 Advance Programming**

**Week-3 Tutorial**

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**EXERCISE** : Modify **EmployeeThree** program with the following requirements 1. Add attribute YearBorn to Manager and Officer

The year born data are as follows :

a. Joyah=1965 b. Mat=1974  
c. Minah = 1983

1. Display details showing age assuming current year is 2014.
2. Add class clerk. Clerks are not entitled to company car or petrol allowance but they may get Cost of Living allowance (COLA).
3. Add a clerk and show the details. Name “Selamat” , Salary RM800, Year Born 1978, COLA RM50.
4. Redraw the class diagram to reflect the modified program
5. Employee\_3.java **(SUPERCLASS)**

package Week3\_Assignment;  
  
public class Employee\_3 {  
  
 private final String **name**;  
 private double **salary**;  
 private boolean **status**;  
  
 Employee\_3(String n, double s) {  
 **name** = n;  
 **salary** = s;  
 **status** = true;  
 }  
  
  
 public double getSalary() {  
 return **salary**;  
 }  
  
 public void setSalary(double s) {  
 if (s < 25000)  
 **salary** = s;  
 }  
  
 public String getName() {  
 return **name**;  
 }  
  
 public String getStatus() {  
 return **status** ? "active" : "resigned";  
 }  
  
 public void resigned() {  
 **status** = false;  
 }  
 public void displayDetail() {  
 System.***out***.println("---------------------------");  
 System.***out***.println("NAME : " + **name**);  
 System.***out***.println("SALARY : " + **salary**);  
 System.***out***.println("STATUS : " + getStatus());  
 }  
}

1. Officer.java **(SUBCLASS)**

package Week3\_Assignment;  
  
public class Officer extends Employee\_3{  
 private final double **petrol**;  
 private final int **yearborn**;  
  
 public Officer(String n, double s, double p, int y) {  
 super(n, s);  
 **petrol** = p;  
 **yearborn** = y;  
 }  
  
 public double getPetrol() {  
 return **petrol**;  
 }  
  
 public int getAge(){  
 return (2014 - **yearborn**);  
 }  
  
  
 public void displayDetail() {  
 super.displayDetail();  
 System.***out***.println("AGE : " + getAge());  
 System.***out***.println("PETROL : " + **petrol**);  
  
 }  
  
}

1. Manager.java **(SUBCLASS)**

package Week3\_Assignment;  
  
public class Manager extends Employee\_3{  
  
 private final String **car**;  
 private final int **yearborn**;  
  
 public Manager(String n, double s, String c, int y) {  
 super(n, s);  
 **car** = c;  
 **yearborn** = y;  
  
 }  
  
 public String getCar() {  
 return **car**;  
 }  
  
 public int getAge() {  
 return (2014 - **yearborn**);  
 }  
  
 @Override  
 public void displayDetail() {  
  
 super.displayDetail();  
 System.***out***.println("AGE : " + getAge());  
 System.***out***.println("CAR : " + **car**);  
 }  
 }

1. Clerk.java **(SUBCLASS)**

package Week3\_Assignment;  
 public class Clerk extends Employee\_3{  
 private final double **cola**;  
 private final int **yearborn**;  
  
 public Clerk(String n, double s, int y, double c){  
 super(n,s);  
 **cola** = c;  
 **yearborn** = y;  
 }  
  
 public int getAge(){  
 return (2014 - **yearborn**);  
  
 }  
  
 public void displayDetail(){  
 super.displayDetail();  
 System.***out***.println("AGE : " + getAge());  
 System.***out***.println("COLA : " + **cola**);  
 }  
  
 }

1. MyCompany\_3.java **(MAINCLASS)**

package Week3\_Assignment;  
  
public class MyCompany\_3 {  
  
 public void init() {  
 Officer staff1 = new Officer("Joyah", 3000, 300,1965);  
 Officer staff2 = new Officer("Mat", 2000, 100, 1974);  
 Manager staff3 = new Manager("Minah", 8000,"Honda Accord", 1983);  
 Clerk staff4 = new Clerk("Selamat", 800, 1978, 50);  
 staff1.displayDetail();  
 staff2.displayDetail();  
 staff3.displayDetail();  
 staff2.resigned();  
 staff2.displayDetail();  
 staff4.displayDetail();  
 }  
 public static void main(String[] args) {  
 MyCompany\_3 mct = new MyCompany\_3();  
 mct.init();  
 }  
  
  
}

**OUTPUT:**

**---------------------------**

**NAME : Joyah**

**SALARY : 3000.0**

**STATUS : active**

**AGE : 49**

**PETROL : 300.0**

**---------------------------**

**NAME : Mat**

**SALARY : 2000.0**

**STATUS : active**

**AGE : 40**

**PETROL : 100.0**

**---------------------------**

**NAME : Minah**

**SALARY : 8000.0**

**STATUS : active**

**AGE : 31**

**CAR : Honda Accord**

**---------------------------**

**NAME : Mat**

**SALARY : 2000.0**

**STATUS : resigned**

**AGE : 40**

**PETROL : 100.0**

**---------------------------**

**NAME : Selamat**

**SALARY : 800.0**

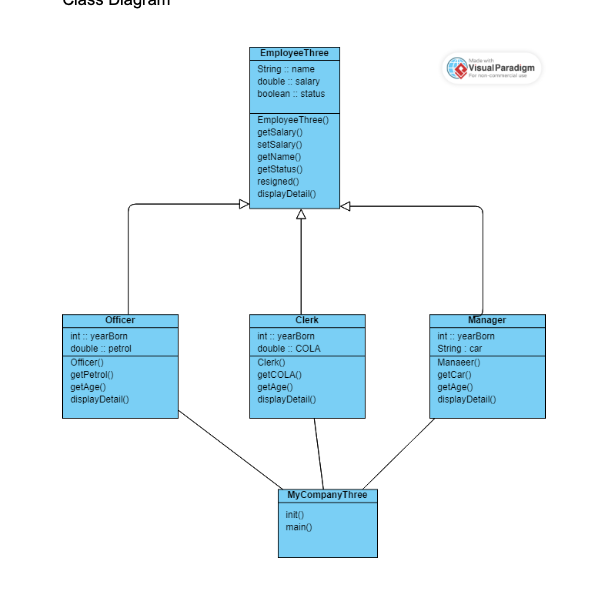
**STATUS : active**

**AGE : 36**

**COLA : 50.0**

**Process finished with exit code 0**

**CLASS DIAGRAM:**

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