

Chapter 4

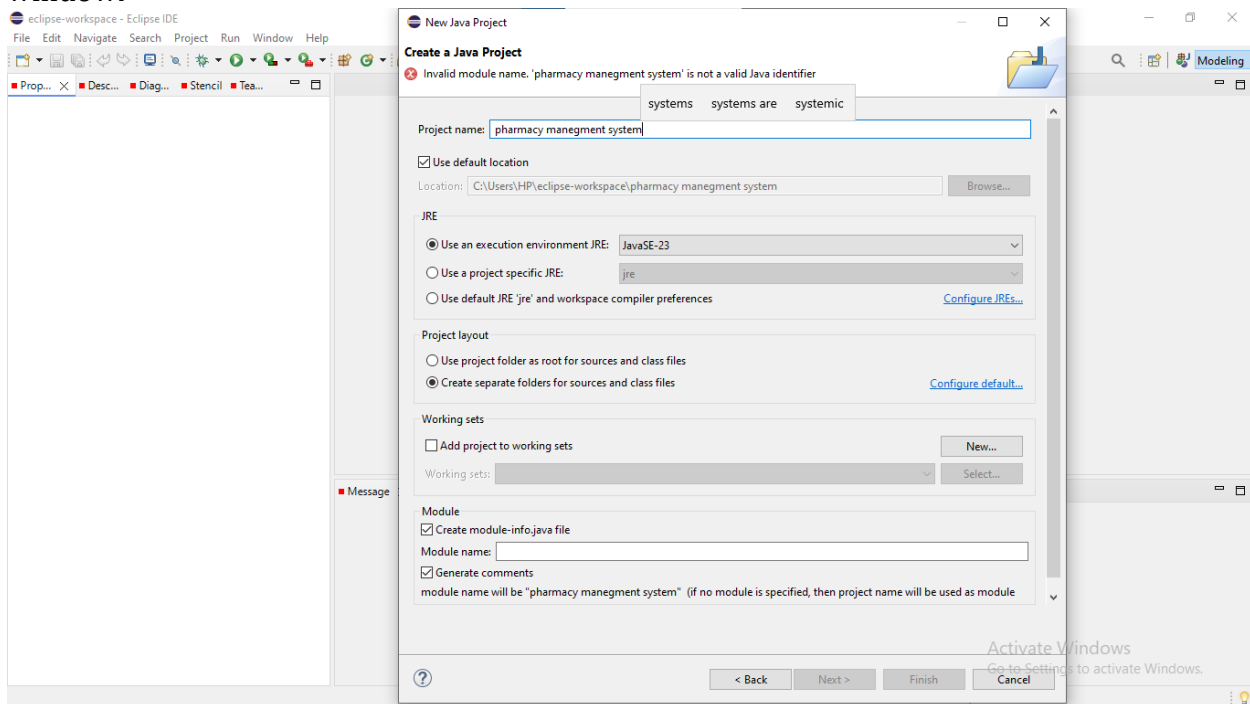
4.1 Implementation Overview

The implementation phase transforms the **Pharmacy Management System's design specifications** into functional code using **Java** within the **Eclipse IDE**. This stage focuses on developing the core classes identified in the class diagram (e.g., User, Admin, Pharmacist, Medicine, Inventory, Alert, and Report), ensuring alignment with the system's requirements for medicine tracking, sales processing, and inventory management. The process involves iterative coding, rigorous testing, and deployment, with **Visual Paradigm** used to generate initial code skeletons from UML diagrams.

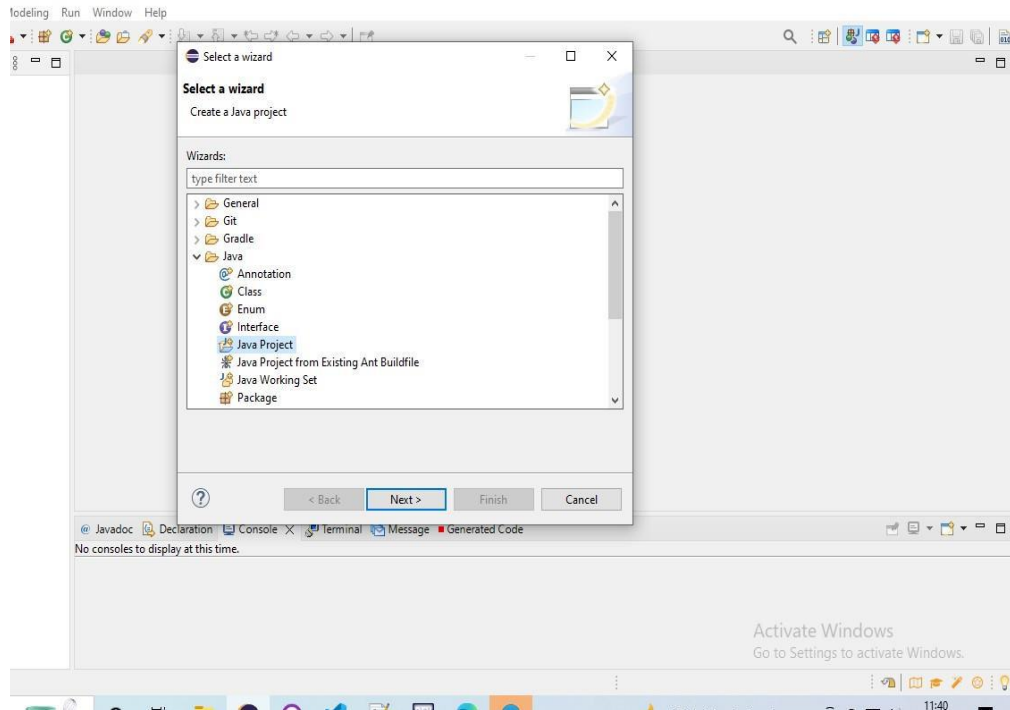
4.2 Sample Class Implementations

Generate Java Code from UML Class

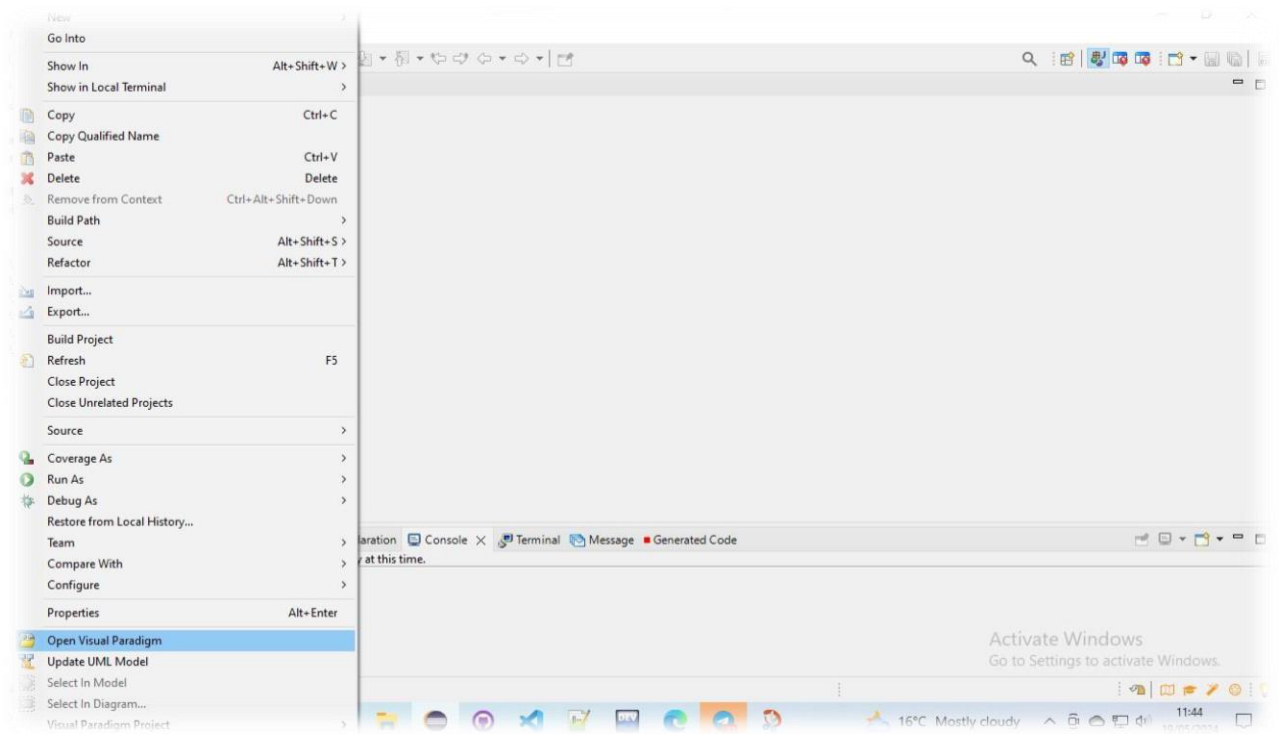
- 1 Creating a Java Project
- 2 Start Eclipse.
- 3 Select File > New > Java Project from the main menu to open the New Java Project window.



- 4 Clicks FINSH

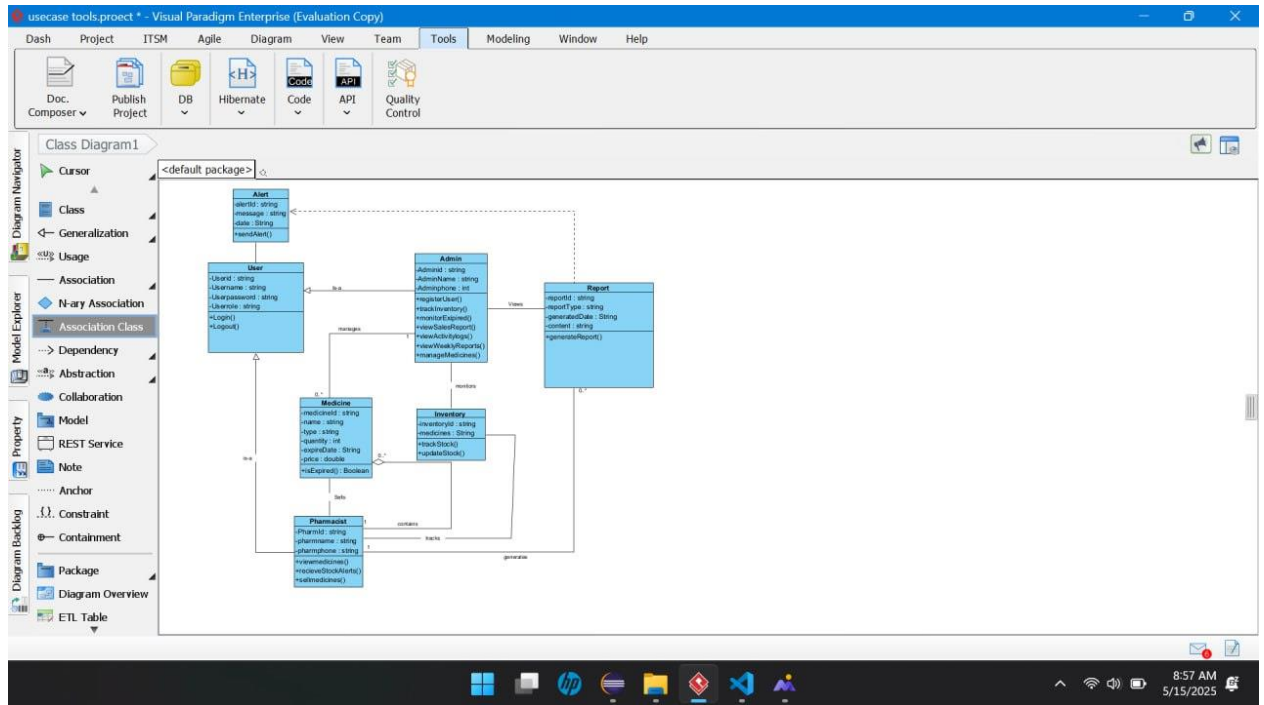


5 Right click on the project node in Package Explorer and select Open Visual Paradigm from the popup menu.



6.Generate Java Code from UML Class from the class diagram

7.Draw a class diagram



Admin.java

```
public class Admin extends User {

    private String Adminid;
    private String AdminName;
    private int Adminphone;

    public void registerUser() {
        // TODO - implement Admin.registerUser
        throw new UnsupportedOperationException();
    }

    public void trackInventory() {
        // TODO - implement Admin.trackInventory
        throw new UnsupportedOperationException();
    }

    public void monitorExpired() {
        // TODO - implement Admin.monitorExpired
        throw new UnsupportedOperationException();
    }

    public void viewSalesReport() {
        // TODO - implement Admin.viewSalesReport
        throw new UnsupportedOperationException();
    }

    public void viewActivitylogs() {
        // TODO - implement Admin.viewActivitylogs
        throw new UnsupportedOperationException();
    }

    public void viewWeeklyReports() {
        // TODO - implement Admin.viewWeeklyReports
        throw new UnsupportedOperationException();
    }

    public void manageMedicines() {
        // TODO - implement Admin.manageMedicines
        throw new UnsupportedOperationException();
    }

}
```

Inventory.java

```
public class Inventory {  
  
    private String inventoryId;  
    private String medicines;  
  
    public void trackStock() {  
        // TODO - implement Inventory.trackStock  
        throw new UnsupportedOperationException();  
    }  
  
    public void updateStock() {  
        // TODO - implement Inventory.updateStock  
        throw new UnsupportedOperationException();  
    }  
}
```

Alert.java

```
public class Alert {  
  
    private string alertId;  
    private string message;  
    private String date;  
  
    public void sendAlert() {  
        // TODO - implement Alert.sendAlert  
        throw new UnsupportedOperationException();  
    }  
}
```

Medicin.java

```
public class Medicine {  
  
    private string medicineId;  
    private string name;  
    private string type;  
    private int quantity;  
    private String expireDate;  
    private double price;  
  
    public Boolean isExpired() {  
        // TODO - implement Medicine.isExpired  
        throw new UnsupportedOperationException();  
    }  
}
```

Pharmacist.java

```
public class Pharmacist extends User {  
  
    private string PharmId;  
    private string pharmname;  
    private string pharmphone;  
  
    public void viewmedicines() {  
        // TODO - implement Pharmacist.viewmedicines  
        throw new UnsupportedOperationException();  
    }  
  
    public void recieveStockAlerts() {  
        // TODO - implement Pharmacist.recieveStockAlerts  
        throw new UnsupportedOperationException();  
    }  
  
    public void sellmedicines() {  
        // TODO - implement Pharmacist.sellmedicines  
        throw new UnsupportedOperationException();  
    }  
  
    public void generateWeeklyReports() {  
        // TODO - implement Pharmacist.generateWeeklyReports  
        throw new UnsupportedOperationException();  
    }  
  
    public void manageMedicines() {  
        // TODO - implement Pharmacist.manageMedicines  
        throw new UnsupportedOperationException();  
    }  
}
```


Report.java

```
✓ public class Report {  
  
    private string reportId;  
    private string reportType;  
    private String generatedDate;  
    private string content;  
  
    public void generateReport() {  
        // TODO - implement Report.generateReport  
        throw new UnsupportedOperationException();  
    }  
  
}
```

User.java

```
✓ public class User {  
  
    private string Userid;  
    private string Username;  
    private string Userpassword;  
    private string Userrole;  
  
    public void Login() {  
        // TODO - implement User.Login  
        throw new UnsupportedOperationException();  
    }  
  
    public void Logout() {  
        // TODO - implement User.Logout  
        throw new UnsupportedOperationException();  
    }  
  
}
```