

# **Factory Management System**

## **OOPS Project**

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### **→ Factory Management System Overview:**

We have implemented a factory Management System that promotes the efficient operation of manufacturing facilities.

The system enables factory managers to efficiently manage employees, machines, and products within the factory. It provides a structured approach to maintaining and updating information about various components of the factory, increasing efficiency and productivity.

### **→ Employee Management:**

We are Using the search function to get the information of employees by their Employee ID.

There is a method to add a new employee with details like id, employee name, designation, department, and phone number in a text file using the file handling concept.

## → **Machine Management:**

The 'displayALLProducts' method enables users to view details of a particular machine based on its ID. It reads the '`machine_data.txt`' file, extracts machine details, and matches the provided ID to display relevant information.

## → **Product Management:**

The system can display details of all products, including ID, name, price, quantity, and description.

It allows ordering products by specifying the quantity needed. It updates the available quantity after an order.

## → **Order Processing:**

The '`processPayment`' method handles payment processing for ordered products. It asks users to select a payment method (online payment or cash on delivery), collects relevant payment information, and simulates payment processing by returning a boolean value indicating whether the payment was successful.

## → **User Interface:**

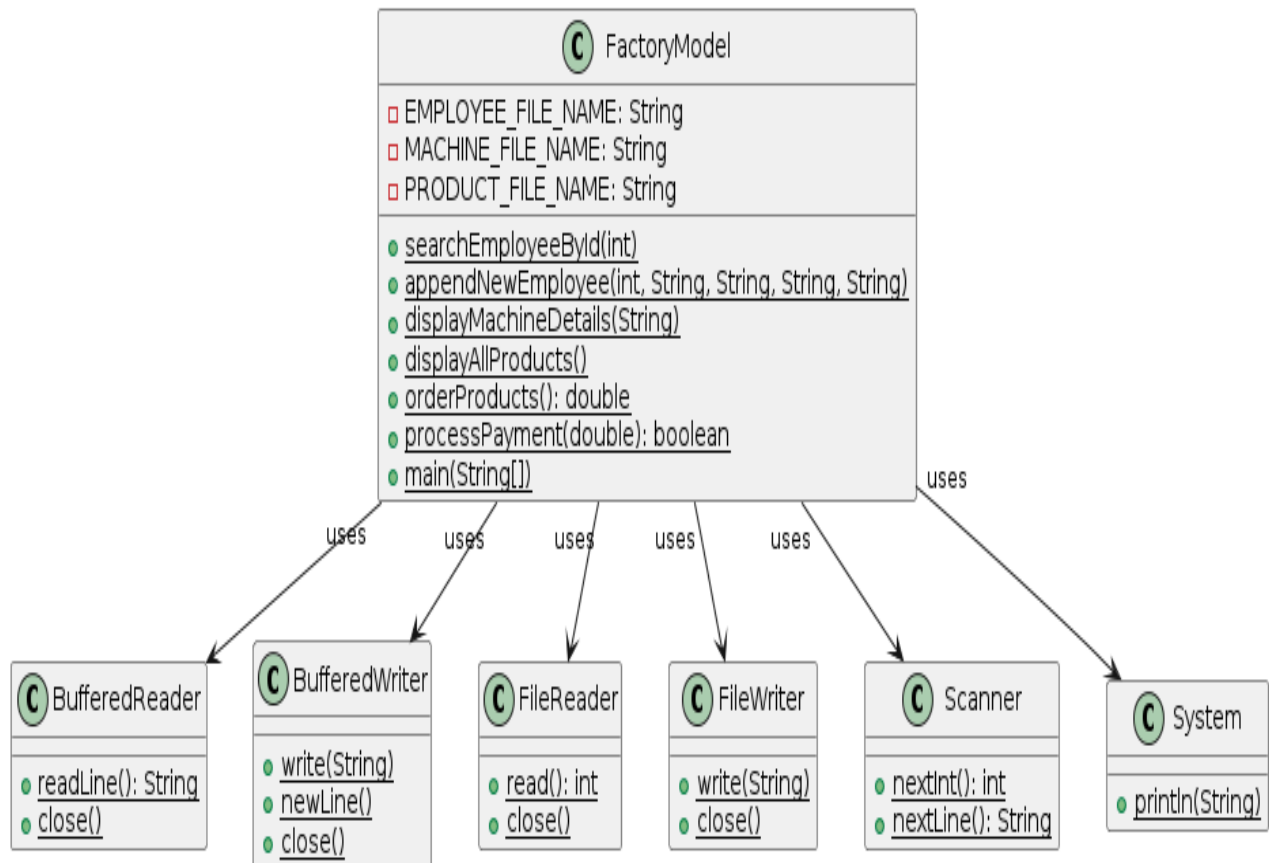
Users can choose options like searching for employees, adding new employees, displaying machine or product details, ordering products, or exiting the system.

It utilises a **Scanner** object to receive user input and executes corresponding methods based on user choices.

## → **Conclusion:**

Overall, this system provides basic functionalities for managing employees, machines, products, and processing orders and payments within a factory environment. It demonstrates file handling, data parsing, user interaction, and basic business logic implementation.

## → Class Diagram:



## → Use-Case Diagram:

