

# Assignment - SpringCore

## 1. Problem Statement:

a). Develop an application using Spring in which you create an employee bean with fields as emp\_name,emp\_id,salary,dob,doj,address and then create an address bean with fields as house\_no,street and city.

Now try to achieve loose coupling using IOC/DI using constructor injection,setter injection and autowiring ?

b) Reuse the above application and try to achieve constructor injection using collection(i.e list,set and map)?

## Problem Statement 2

2) Develop a **RedBus Reservation Booking** application with following functional requirements

- i) **Passenger** bean with attributes like name, pan\_card\_number, contact\_number, passport\_number.
- ii) **Bus\_Details** bean which has attributes like bus\_id, date\_of\_arrival, arrival\_Time and departure\_time,From, To, and rate\_of\_ticket.
- ii) **Ticket** bean which has details like Bus\_details,No\_of\_seats, Collection of passengers and total\_amount. Ticket class should also have functionality which will select appropriate flight, arrival\_time,date and calculate total amount of ticket. Display Ticket information.

Ticket Details :

FROM :

To :

Departure Date :

Departure Time:

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List Of Passengers:

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Total Amount :

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### 3. Problem Statement:

Develop an application using spring core with the below given functionalities

- i) Invoice class that a hardware store might use to represent an invoice for an item sold at the store.
- ii) An Invoice should include four pieces of information as instance variables- a part\_number(type String), a part\_description(type String), a quantity of the item being purchased (type int) and a price per item (double).
- iii) The class should have a constructor that initializes the four instance variables. Provide a set and a get method for each instance variable. In addition, provide a method named getInvoiceAmount that calculates the invoice amount (i.e., multiplies the quantity by the price per item), then returns the amount as a double value. If the quantity is not positive, it should be set to 0. If the price per item is not positive, it should be set to 0.0.
- iv) Write a test application named InvoiceTest that demonstrates class Invoice's capabilities.