**Exercise 11: Implementing Dependency Injection**

**Source Code:**

**Customer.java**

public record Customer(int id,String name) {}

**CustomerRepository.java**

public interface CustomerRepository { Customer findCustomerById(int id); }

**CustomerRepositoryImpl.java**

import java.util.\*;

public class CustomerRepositoryImpl implements CustomerRepository {

private final Map<Integer,Customer> db = Map.of(

1,new Customer(1,"Ravi"),

2,new Customer(2,"Sara"));

public Customer findCustomerById(int id){return db.get(id);}

}

**CustomerService.java**

public class CustomerService {

private final CustomerRepository repo;

public CustomerService(CustomerRepository r){repo=r;}

public void showCustomer(int id){

Customer c=repo.findCustomerById(id);

System.out.println(c==null?"Not found":c);

}

}

**DIExample.java**

public class DIExample {

public static void main(String[] a){

CustomerRepository repo=new CustomerRepositoryImpl();

CustomerService svc=new CustomerService(repo);

svc.showCustomer(1);

svc.showCustomer(3);

}

}

**Output:**

**A screenshot of a computer screen

AI-generated content may be incorrect.**