**Exercise 11: Implementing Dependency Injection**

**Code:**

**CustomerRepository.java**

public interface CustomerRepository {

String findCustomerById(String customerId);

}

**CustomerRepositoryImpl.java**

public class CustomerRepositoryImpl implements CustomerRepository {

@Override

public String findCustomerById(String customerId) {

return "Customer[id=" + customerId + ", name=Alice]";

}

}

**CustomerService.java**

public class CustomerService {

private CustomerRepository repository;

public CustomerService(CustomerRepository repository) {

this.repository = repository;

}

public void getCustomerDetails(String customerId) {

String customer = repository.findCustomerById(customerId);

System.out.println("Customer Details: " + customer);

}

}

**DependencyInjectionExample.java**

public class DependencyInjectionExample {

public static void main(String[] args) {

CustomerRepository repository = new CustomerRepositoryImpl();

CustomerService service = new CustomerService(repository);

service.getCustomerDetails("C301");

}

}

**Output:**

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