**Exercise 11: Implementing Dependency Injection**

CODE:

public class DependencyInjectionExample {

interface CustomerRepository {

Customer findCustomerById(int id);

}

static class CustomerRepositoryImpl implements CustomerRepository {

@Override

public Customer findCustomerById(int id) {

return new Customer(id, "Customer\_" + id, "customer" + id + "@example.com");

}

}

static class Customer {

private int id;

private String name;

private String email;

public Customer(int id, String name, String email) {

this.id = id;

this.name = name;

this.email = email;

}

public String toString() {

return "Customer [ID=" + id + ", Name=" + name + ", Email=" + email + "]";

}

}

static class CustomerService {

private CustomerRepository repository;

public CustomerService(CustomerRepository repository) {

this.repository = repository;

}

public void displayCustomer(int id) {

Customer customer = repository.findCustomerById(id);

System.out.println(customer);

}

}

public static void main(String[] args) {

CustomerRepository repository = new CustomerRepositoryImpl();

CustomerService service = new CustomerService(repository);

service.displayCustomer(101);

service.displayCustomer(202);

}

}

OUTPUT:

