# **Mini Project Layers Document**

**Persistent Layer:**

**ContactEntity.java**

public class ContactEntity

{

private Integer id;

private String name;

private String email;

private Integer phNo;

//constructor

//getter and setter

//ToString

}

**IContactRepo.java**

public interface IContactRepo

extends JpaRepository<ContactEntity, Integer> { }

**Service Layer:**

**IContactService.java (I)**

public interface IContactService

{

// save Contact

public Integer saveContact(ContactEntity contactEntity);

// fetch all contacts

public List<ContactEntity> getAllContacts();

// delete contact by id

public void deleteContact(Integer id);

// update contact

public void updateContact(ContactEntity contactEntity);

}

**ContactServiceImpl.java** (C)

@Service

public class ContactServiceImpl implements IcontactService

{

@Autowired

private IContactRepo repo; //HAS-A

public Integer saveContact(ContactEntity contactEntity)

{

//saveContact method implemented

}

public List<ContactEntity> getAllContacts()

{

//getAllContact method implemented

}

public void deleteContact(Integer id)

{

//deleteContact method implemented

}

public void updateContact(ContactEntity contactEntity)

{

//updateContact method implemented

}

}

**Controller :**

**ContactController.java**

@Controller

public class ContactController

{

@Autowired

private IContactService service; //HAS-A

public String contactReg(){}

public String saveContact(){}

public String AllContactInfo(){}

public String deleteContact(){}

public String contactInfoEdit(){}

public String updateContact(){}

}

**Presentation Layer:**

1. Contact.jsp

2. viewContacts.jsp

3. error.jsp