***Smart Contact Manager***

**A. Modules:**

**1. User Management:**

1. Register

2. Login

3. Logout

4. Profile

**2. Contact Management:**

1. Show Contacts

2. Update Contacts

3. Add contacts

4. Delete Contacts

5. Search Contacts

**B. Technologies Used:**

1. Spring Boot Framework

2. Spring MVC

3. Spring JPA

4. Thymeleaf Template Engine

5. Spring Security

6. MySQL Database

7. IDE – Visual Studio Code

**C. Dependencies Used:**

1. starter-web

2. starter-thymeleaf

3. starter data JPA

4. mysql-connector-Java

5. spring boot devtools

6. starter security

7. validation-api

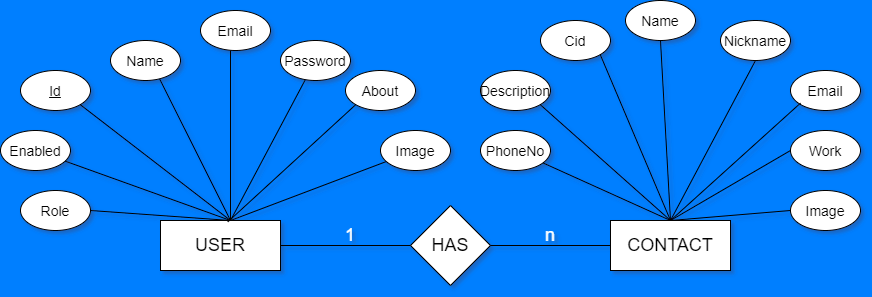
8. hibernate-validator

**D. How to setup database and Creating E-R Diagrams:**

1. Basically for creating diagram we are using draw.io website.

Visit on: <https://app.diagrams.net/>

2. E-R Diagram:



**E. Login using Spring Security:**

1. We need to include the following dependency into

the pom.xml as follows,

**<!--https://mvnrepository.com/artifact/org.springframework.boot/spring-boot-starter-security -->**

**<dependency>**

**<groupId>org.springframework.boot</groupId>**

**<artifactId>spring-boot-starter-security</artifactId>**

**<version>2.7.1</version>**

**</dependency>**

2. The security are automatically take its charges on

the pages whenever including, First up all it will

provides the default password for login with its

form.

3. Three steps for role based authorization spring

security are as follows:

A] Provide the implementations of **UserDetails**

interface for that create custom classes which

will implements this interface.

B] Provide the implementations of

**UserDetailsService** interface for that create

custom classes which will implements this

interface.

C] Write one security configuration class with

all configurations. A simple class which

extends the **WebSecurityConfigures** adapter

class.

4. Several methods that are used to configure the

Behavior of the login form:

1. loginPage() – The custom login page

2. loginProcessingUrl() – The URL to submit the

username and password.

3. defaultSuccessUrl() – The landing page after a

successful login.

4. failureUrl() – The landing page after a

unsuccessful login