

Login Module

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Required :

1. Spring Technology - 4.0.3 Version
2. Hibernate - 4 Version
3. STS
4. Eclipse Luna (optional)
5. Maven (m2e plugin) (optional)
6. email jar (optional)
7. sms jar (optional)

Java classes (Entities only)

1. Role
2. User
3. UserDetails

Role.java

```
@Entity
@Table(name="role")
public class Role {

    @Id
    @GeneratedValue(strategy = GenerationType.AUTO)
    private int id;

    @Column(name="role_name")
    private String role_name;
```

User.java

```
@Entity
@Table(name="user")
public class User {

    @Id
    @GeneratedValue(strategy = GenerationType.AUTO)
    private int id;

    @Column(name="email_id")
    private String username;

    @Column(name="password")
    private String password;

    @Column(name = "act_status")
    private boolean actStatus;

    @Column(name = "mobile_no")
    private boolean mobileNo;

    @OneToOne
    @JoinColumn(name = "role_id")
    private Role role;
```

UserDetails.java

```
@Entity
@Table(name="user_details")
public class UserDetails {

    @Id
    @GeneratedValue(strategy=GenerationType.AUTO)
    private int id;

    @Column(name="dob")
    private Date dateOfBirth;

    @Column(name="area")
    private String area;

    @Column(name="city")
    private String city;

    @Column(name="district")
    private String district;

    @Column(name="state")
    private String state;

    @OneToOne
    @JoinColumn(name="user_id")
    private User user;
```

Hibernate snapshot

```
<beans:bean id="dataSource" class="org.apache.commons.dbcp.BasicDataSource"
    destroy-method="close">
    <beans:property name="driverClassName" value="com.mysql.jdbc.Driver" />
    <beans:property name="url"
        value="jdbc:mysql://localhost:3306/librarymgnt" />
    <beans:property name="username" value="root" />
    <beans:property name="password" value="" />
</beans:bean>

<!-- Hibernate 4 SessionFactory Bean definition -->
<beans:bean id="hibernate4AnnotatedSessionFactory"
    class="org.springframework.orm.hibernate4.LocalSessionFactoryBean">
    <beans:property name="dataSource" ref="dataSource" />
    <beans:property name="packagesToScan">
        <beans:list>
            <beans:value>com.sunbeam</beans:value>
        </beans:list>
    </beans:property>
    <beans:property name="hibernateProperties">
        <beans:props>
            <beans:prop key="hibernate.dialect">org.hibernate.dialect.MySQLDialect
            </beans:prop>
            <beans:prop key="hibernate.show_sql">true</beans:prop>
            <beans:prop key="hibernate.hbm2ddl.auto">update</beans:prop>
        </beans:props>
    </beans:property>
</beans:bean>
```

Hibernate Magic (Create tables from Entities)

Add this below property to hibernate.cnf.xml

```
<beans:prop key="hibernate.hbm2ddl.auto"> update </beans:prop>
```

This will create tables schemas and relationships.

Database Design

1. Role

- a. **id (int - auto) (primary key)**
- b. role_name (varchar - 30)

2. User (one to many relation)

- a. **id (int - auto) (primary key)**
- b. email_id (varchar - 50)
- c. password (varchar - 50)
- d. email_authentication (bit - 0)
- e. act_status (bit - 0)
- f. mobile_no (varchar - 10)
- g. **role_id (foreign key)**

3. UserDetails (one to one relation)

- a. id (int - auto) (primary key)
- b. dob (Date)
- c. area (varchar - 25)
- d. city (varchar - 25)
- e. district (varchar - 25)
- f. state (varchar - 25)
- g. pin_code (varchar - 6)
- h. **user_id (foreign key)**

Redirect to respective User Home page

```
User user = userService.getUser(username, password)
if(user != null){
    if(user.getActStatus()){
        switch(user.getRole().getId()){
            case 0 : return modelMap.add("result", user, "admin");
            case 1 : return modelMap.add("result", user, "owner");
            default : return modelMap.add("result", user, "student");
        }
    }else{
        return modelMap.add("error", "Act not activated yet, Kindly contact to admin -  
admin@sunbeam.com");
    }
}
else{
    return modelMap.add("error", "Invalid Username or Password");
}
```

Functionality you can achieve :

1. Login
2. Registration
3. Email Authentication
4. Account Activation
5. Change Password
6. Forgot Password
7. Redirect to respective page
8. Send Birthday Greeting Emails (Optional)
9. Recommendation emails (Optional)