Spring Boot Security – Password Encoding Using BCrypt

In a previous post we had implemented Spring Boot Security – Create Users Programmatically.

But currently the passwords is clearly visible in the database tables. This is may be a security issue as hackers or even employees can misuse this.

1. Continue with ***“boot-security-loginwith-users”***

Next we modify the security configuration to use the bycrypt encoder. We first create a bean of type **BCryptPasswordEncoder.** This bean type is then provided to the AuthenticationManagerBuilder.

EmployeeSecurityConfiguration.java

```
@Bean
     public PasswordEncoder passwordEncoder() {
          return new BCryptPasswordEncoder();
     }

     // Enable jdbc authentication
     @Autowired
     public void
configAuthentication(AuthenticationManagerBuilder auth) throws
Exception {

auth.jdbcAuthentication().dataSource(dataSource).passwordEncoder
(passwordEncoder());
     }
```

2. Next in the controller we autowire the PasswordEncoder and use it for encoding the password and then store to Database;

EmployeeController.java

2.1

```
@Autowired
     private BCryptPasswordEncoder bCryptPasswordEncoder;
```

2.2 Rewrite processRegister() method

```
@RequestMapping(value = "/register", method = 
RequestMethod.POST)
     public ModelAndView processRegister(@ModelAttribute("user") 
UserRegistration userRegistrationObject) {
          List<GrantedAuthority> authorities = new 
ArrayList<GrantedAuthority>();
          authorities.add(new 
SimpleGrantedAuthority("ROLE_ADMIN"));

          String encodedPassword = 
bCryptPasswordEncoder.encode(userRegistrationObject.getPassword(
));

          User user = new 
User(userRegistrationObject.getUsername(), encodedPassword, 
authorities);
          jdbcUserDetailsManager.createUser(user);
          return new ModelAndView("redirect:/welcome");
     }
```

6. RUN the APP

7. Register new user and check that DB contains encoded password

8. Update existing passwords in DB with encoded values and Login with decoded password and check