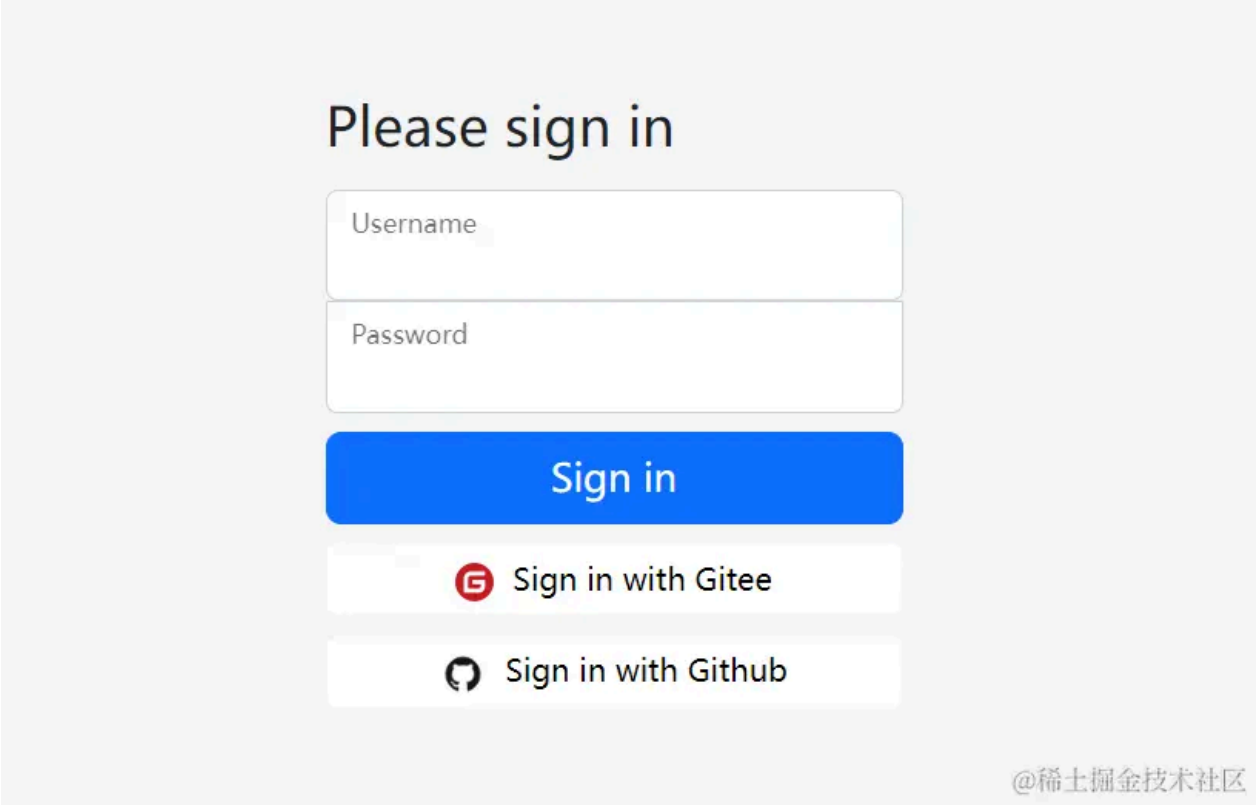
Spring Authorization Server (8) 授权服务的默认认证方式扩展

爱吃西瓜的胖娃 2023-10-15 489 阅读10分钟 关注

> 架构版本
>
> Spring Boot 3.1
>
> Spring Authorization Server 1.1.1
>
> spring-cloud 2022.0.3
>
> spring-cloud-alibaba 2022.0.0.0
>
> 完整代码👉 watermelon-cloud

授权服务的默认认证方式

> 默认的 `/login` ，且只有用户名和密码模式，就这个页面



> 密码我万一那天忘记了咋办，随便看看现在的谁家的网站，手机号+验证码没有，这也太low了，必须得加一个啊！

那先看看默认的 /login 它怎么玩的，我们就跟着它一样玩

授权服务默认登录

> 默认登录url `/login` ，能找到对应的filter `UsernamePasswordAuthenticationFilter` ，需要从这个地方先入手，点进去看看

UsernamePasswordAuthenticationFilter

> java 复制代码

```java
public class UsernamePasswordAuthenticationFilter extends >AbstractAuthenticationProcessi

    public static final String SPRING_SECURITY_FORM_USERNAME_KEY = "username";

    public static final String SPRING_SECURITY_FORM_PASSWORD_KEY = "password";

    private static final AntPathRequestMatcher DEFAULT_ANT_PATH_REQUEST_MATCHER = new >Antl
            "POST");

    private String usernameParameter = SPRING_SECURITY_FORM_USERNAME_KEY;

    private String passwordParameter = SPRING_SECURITY_FORM_PASSWORD_KEY;

    private boolean postOnly = true;

    public UsernamePasswordAuthenticationFilter() {
        super(DEFAULT_ANT_PATH_REQUEST_MATCHER);
    }

    public UsernamePasswordAuthenticationFilter(AuthenticationManager authenticationManager
        super(DEFAULT_ANT_PATH_REQUEST_MATCHER, authenticationManager);
    }

    @Override
    public Authentication attemptAuthentication(HttpServletRequest request, HttpServletResp
            throws AuthenticationException {
        if (this.postOnly && !request.getMethod().equals("POST")) {
            throw new AuthenticationServiceException("Authentication method not supported:
        }
        String username = obtainUsername(request);
        username = (username != null) ? username.trim() : "";
        String password = obtainPassword(request);
        password = (password != null) ? password : "";
        UsernamePasswordAuthenticationToken authRequest = UsernamePasswordAuthenticationTol
                password);
        // Allow subclasses to set the "details" property
        setDetails(request, authRequest);
        return this.getAuthenticationManager().authenticate(authRequest);
    }
}
```

`UsernamePasswordAuthenticationFilter` 继承 `AbstractAuthenticationProcessingFilter` 的 重写了 `attemptAuthentication()` 方法

构造了 UsernamePasswordAuthenticationToken 对象

> `UsernamePasswordAuthenticationToken` 对于的 `DaoAuthenticationProvider` 处理， 最后返回了 `Authentication` 这个流程应该已经很熟悉了吧。
>
> 最后看看怎么走 `UsernamePasswordAuthenticationFilter` 的父类是一个抽象类 `AbstractAuthenticationProcessingFilter`

AbstractAuthenticationProcessingFilter

> java 复制代码

```java
public abstract class AbstractAuthenticationProcessingFilter extends GenericFilterBean
        implements ApplicationEventPublisherAware, MessageSourceAware {


    // UsernamePasswordAuthenticationFilter 是 对应就是  CompositeSessionAuthenticationStra
    private SessionAuthenticationStrategy sessionStrategy = new NullAuthenticatedSessionSt

    //
    private SecurityContextRepository securityContextRepository = new RequestAttributeSecu


    public abstract Authentication attemptAuthentication(HttpServletRequest request, HttpS
            throws AuthenticationException, IOException, ServletException;


    private void doFilter(HttpServletRequest request, HttpServletResponse response, Filter
            throws IOException, ServletException {
        if (!requiresAuthentication(request, response)) {
            chain.doFilter(request, response);
            return;
        }
        try {
            Authentication authenticationResult = attemptAuthentication(request, response)
            if (authenticationResult == null) {
                // return immediately as subclass has indicated that it hasn't completed
                return;
            }
            this.sessionStrategy.onAuthentication(authenticationResult, request, response)
            // Authentication success
            if (this.continueChainBeforeSuccessfulAuthentication) {
```

```
34          } catch (InternalAuthenticationServiceException failed) {
35              this.logger.error("An internal error occurred while trying to authenticate the
36              unsuccessfulAuthentication(request, response, failed);
37          } catch (AuthenticationException ex) {
38              // Authentication failed
39              unsuccessfulAuthentication(request, response, ex);
40          }
41      }
42  }
43
```

`Authentication authenticationResult = attemptAuthentication(request, response);` 这行会执行子类的 `attemptAuthentication()` 最后处理登录成功相关的了。\

那扩展肯定这个 attemptAuthentication() 方法是关键了

也同样继承 `AbstractAuthenticationProcessingFilter` 去实现一个 Filter 这样不行，因为 `AbstractAuthenticationProcessingFilter` 中有两个变量 `securityContextRepository` 、`sessionStrategy` 当是 `UsernamePasswordAuthenticationFilter` 时 初始化的值就不一样了，这样就导致我们和 `UsernamePasswordAuthenticationFilter` 的后续处理成功流程就不一样，导致一直认证失败的。

后续的filter 注入的时候代码中会体现出来。

扩展

手机号+验证码

UserAuthenticationProcessingFilter

自定义一个 `UserAuthenticationProcessingFilter` 与 `AbstractAuthenticationProcessingFilter` 类似

java 复制代码

```java
public abstract class UserAuthenticationProcessingFilter extends GenericFilterBean
    implements ApplicationEventPublisherAware, MessageSourceAware {

  private SecurityContextHolderStrategy securityContextHolderStrategy = SecurityContextHo
      .getContextHolderStrategy();

  protected ApplicationEventPublisher eventPublisher;

  protected AuthenticationDetailsSource<HttpServletRequest, ?> authenticationDetailsSource

  private AuthenticationManager authenticationManager;

  protected MessageSourceAccessor messages = SpringSecurityMessageSource.getAccessor();

  private RememberMeServices rememberMeServices = new NullRememberMeServices();

  private RequestMatcher requiresAuthenticationRequestMatcher;

  private boolean continueChainBeforeSuccessfulAuthentication = false;

  private SessionAuthenticationStrategy sessionStrategy = new NullAuthenticatedSessionStr

  private boolean allowSessionCreation = true;

  private AuthenticationSuccessHandler successHandler = new SavedRequestAwareAuthenticati

  private AuthenticationFailureHandler failureHandler = new SimpleUrlAuthenticationFailur

  private SecurityContextRepository securityContextRepository = new RequestAttributeSecur


  protected UserAuthenticationProcessingFilter(String defaultFilterProcessesUrl) {
    setFilterProcessesUrl(defaultFilterProcessesUrl);
  }


  protected UserAuthenticationProcessingFilter(RequestMatcher requiresAuthenticationReque
    Assert.notNull(requiresAuthenticationRequestMatcher, "requiresAuthenticationRequestM
    this.requiresAuthenticationRequestMatcher = requiresAuthenticationRequestMatcher;
  }


  protected UserAuthenticationProcessingFilter(String defaultFilterProcessesUrl,
                                               AuthenticationManager authenticationManage
    setFilterProcessesUrl(defaultFilterProcessesUrl);
    setAuthenticationManager(authenticationManager);
```

```
50  protected UserAuthenticationProcessingFilter(RequestMatcher requiresAuthenticationReque
51                                                AuthenticationManager authenticationManag
52     setRequiresAuthenticationRequestMatcher(requiresAuthenticationRequestMatcher);
53     setAuthenticationManager(authenticationManager);
54  }
55
56  @Override
57  public void afterPropertiesSet() {
58     Assert.notNull(this.authenticationManager, "authenticationManager must be specified"
59  }
60
61
62  @Override
63  public void doFilter(ServletRequest request, ServletResponse response, FilterChain chai
64        throws IOException, ServletException {
65     doFilter((HttpServletRequest) request, (HttpServletResponse) response, chain);
66  }
67
68  private void doFilter(HttpServletRequest request, HttpServletResponse response, FilterCh
69        throws IOException, ServletException {
70     if (!requiresAuthentication(request, response)) {
71        chain.doFilter(request, response);
72        return;
73     }
74     try {
75        Authentication authenticationResult = attemptAuthentication(request, response);
76        if (authenticationResult == null) {
77           // return immediately as subclass has indicated that it hasn't completed
78           return;
79        }
80        this.sessionStrategy.onAuthentication(authenticationResult, request, response);
81        // Authentication success
82        if (this.continueChainBeforeSuccessfulAuthentication) {
83           chain.doFilter(request, response);
84        }
85        successfulAuthentication(request, response, chain, authenticationResult);
86     }
87     catch (InternalAuthenticationServiceException failed) {
88        this.logger.error("An internal error occurred while trying to authenticate the use
89        unsuccessfulAuthentication(request, response, failed);
90     }
91     catch (AuthenticationException ex) {
92        // Authentication failed
93        unsuccessfulAuthentication(request, response, ex);
94     }
95  }
96
```

```
99      if (this.requiresAuthenticationRequestMatcher.matches(request)) {
100        return true;
101     }
102     if (this.logger.isTraceEnabled()) {
103        this.logger
104              .trace(LogMessage.format("Did not match request to %s", this.requiresAuthen
105     }
106     return false;
107  }
108
109
110  public abstract Authentication attemptAuthentication(HttpServletRequest request, HttpSe
111        throws AuthenticationException, IOException, ServletException;
112
113
114  protected void successfulAuthentication(HttpServletRequest request, HttpServletResponse
115        Authentication authResult) throws IOException, ServletException {
116     SecurityContext context = this.securityContextHolderStrategy.createEmptyContext();
117     context.setAuthentication(authResult);
118     this.securityContextHolderStrategy.setContext(context);
119     this.securityContextRepository.saveContext(context, request, response);
120     if (this.logger.isDebugEnabled()) {
121        this.logger.debug(LogMessage.format("Set SecurityContextHolder to %s", authResult
122     }
123     this.rememberMeServices.loginSuccess(request, response, authResult);
124     if (this.eventPublisher != null) {
125        this.eventPublisher.publishEvent(new InteractiveAuthenticationSuccessEvent(authRe
126     }
127     this.successHandler.onAuthenticationSuccess(request, response, authResult);
128  }
129
130
131  protected void unsuccessfulAuthentication(HttpServletRequest request, HttpServletRespon
132        AuthenticationException failed) throws IOException, ServletException {
133     this.securityContextHolderStrategy.clearContext();
134     this.logger.trace("Failed to process authentication request", failed);
135     this.logger.trace("Cleared SecurityContextHolder");
136     this.logger.trace("Handling authentication failure");
137     this.rememberMeServices.loginFail(request, response);
138     this.failureHandler.onAuthenticationFailure(request, response, failed);
139  }
140
141  protected AuthenticationManager getAuthenticationManager() {
142     return this.authenticationManager;
143  }
144
145  public void setAuthenticationManager(AuthenticationManager authenticationManager) {
```

```
148
149
150   public void setFilterProcessesUrl(String filterProcessesUrl) {
151      setRequiresAuthenticationRequestMatcher(new AntPathRequestMatcher(filterProcessesUrl
152   }
153
154   public final void setRequiresAuthenticationRequestMatcher(RequestMatcher requestMatcher
155      Assert.notNull(requestMatcher, "requestMatcher cannot be null");
156      this.requiresAuthenticationRequestMatcher = requestMatcher;
157   }
158
159   public RememberMeServices getRememberMeServices() {
160      return this.rememberMeServices;
161   }
162
163   public void setRememberMeServices(RememberMeServices rememberMeServices) {
164      Assert.notNull(rememberMeServices, "rememberMeServices cannot be null");
165      this.rememberMeServices = rememberMeServices;
166   }
167
168
169   public void setContinueChainBeforeSuccessfulAuthentication(boolean continueChainBeforeSu
170      this.continueChainBeforeSuccessfulAuthentication = continueChainBeforeSuccessfulAuthe
171   }
172
173   @Override
174   public void setApplicationEventPublisher(ApplicationEventPublisher eventPublisher) {
175      this.eventPublisher = eventPublisher;
176   }
177
178   public void setAuthenticationDetailsSource(
179         AuthenticationDetailsSource<HttpServletRequest, ?> authenticationDetailsSource) {
180      Assert.notNull(authenticationDetailsSource, "AuthenticationDetailsSource required");
181      this.authenticationDetailsSource = authenticationDetailsSource;
182   }
183
184   @Override
185   public void setMessageSource(MessageSource messageSource) {
186      this.messages = new MessageSourceAccessor(messageSource);
187   }
188
189   protected boolean getAllowSessionCreation() {
190      return this.allowSessionCreation;
191   }
192
193   public void setAllowSessionCreation(boolean allowSessionCreation) {
194      this.allowSessionCreation = allowSessionCreation;
```

```
197   public void setSessionAuthenticationStrategy(SessionAuthenticationStrategy sessionStrat
198      this.sessionStrategy = sessionStrategy;
199   }
200
201   public void setAuthenticationSuccessHandler(AuthenticationSuccessHandler successHandler
202      Assert.notNull(successHandler, "successHandler cannot be null");
203      this.successHandler = successHandler;
204   }
205
206   public void setAuthenticationFailureHandler(AuthenticationFailureHandler failureHandler
207      Assert.notNull(failureHandler, "failureHandler cannot be null");
208      this.failureHandler = failureHandler;
209   }
210
211
212   public void setSecurityContextRepository(SecurityContextRepository securityContextRepos
213      Assert.notNull(securityContextRepository, "securityContextRepository cannot be null"
214      this.securityContextRepository = securityContextRepository;
215   }
216
217
218   public void setSecurityContextHolderStrategy(SecurityContextHolderStrategy securityCont
219      Assert.notNull(securityContextHolderStrategy, "securityContextHolderStrategy cannot
220      this.securityContextHolderStrategy = securityContextHolderStrategy;
221   }
222
223   protected AuthenticationSuccessHandler getSuccessHandler() {
224      return this.successHandler;
225   }
226
227   protected AuthenticationFailureHandler getFailureHandler() {
228      return this.failureHandler;
229   }
230
231 }
```

PhoneCaptchaAuthenticationToken

java 复制代码

```
1  public class PhoneCaptchaAuthenticationToken extends AbstractAuthenticationToken {
2
3     private final Object principal;
```

```
6
7   public PhoneCaptchaAuthenticationToken(Object principal, Object credentials) {
8       super(null);
9       this.principal = principal;
10      this.credentials = credentials;
11      setAuthenticated(false);
12  }
13
14
15  public PhoneCaptchaAuthenticationToken(Object principal, Object credentials,
16                                         Collection<? extends GrantedAuthority> authc
17      super(authorities);
18      this.principal = principal;
19      this.credentials = credentials;
20      super.setAuthenticated(true); // must use super, as we override
21  }
22
23
24  public static PhoneCaptchaAuthenticationToken unauthenticated(Object principal, Object
25      return new PhoneCaptchaAuthenticationToken(principal, credential);
26  }
27
28
29  public static PhoneCaptchaAuthenticationToken authenticated(Object principal, Object cr
30                                                              Collection<? extends Gr
31      return new PhoneCaptchaAuthenticationToken(principal, credentials, authorities);
32  }
33
34  @Override
35  public Object getCredentials() {
36      return this.credentials;
37  }
38
39  @Override
40  public Object getPrincipal() {
41      return this.principal;
42  }
43
44  @Override
45  public void setAuthenticated(boolean isAuthenticated) throws IllegalArgumentException {
46      Assert.isTrue(!isAuthenticated,
47              "Cannot set this token to trusted - use constructor which takes a GrantedAu
48      super.setAuthenticated(false);
49  }
50
51  @Override
52  public void eraseCredentials() {
```

```
55     }
56 }
```

PhoneCaptchaAuthenticationProvider

java 复制代码

```java
@Component
public class PhoneCaptchaAuthenticationProvider
          implements AuthenticationProvider {

  protected final Log logger = LogFactory.getLog(getClass());

  protected MessageSourceAccessor messages = SpringSecurityMessageSource.getAccessor();

  private UserCache userCache = new NullUserCache();

  private final boolean forcePrincipalAsString = false;

  protected boolean hideUserNotFoundExceptions = true;

  private UserDetailsChecker preAuthenticationChecks = new DefaultPreAuthenticationChecks

  private UserDetailsChecker postAuthenticationChecks = new DefaultPostAuthenticationChecl

  private GrantedAuthoritiesMapper authoritiesMapper = new NullAuthoritiesMapper();

  @Lazy
  @Autowired
  public UserDetailsService userDetailsService;


  @Override
  public Authentication authenticate(Authentication authentication) throws AuthenticationI
          Assert.isInstanceOf(PhoneCaptchaAuthenticationToken.class, authentication,
                  () -> this.messages.getMessage("PhoneCaptchaAuthenticationProvi
                          "Only PhoneCaptchaAuthenticationToken is suppor
          String username = determineUsername(authentication);
          boolean cacheWasUsed = true;
          UserDetails user = this.userCache.getUserFromCache(username);
```

```
36                  try {
37                          user = retrieveUser(username, (PhoneCaptchaAuthenticationToken)
38                  }
39                  catch (UsernameNotFoundException ex) {
40                          this.logger.debug("Failed to find phone '" + username + "'");
41                          if (!this.hideUserNotFoundExceptions) {
42                                  throw ex;
43                          }
44                          throw new BadCredentialsException(this.messages
45                                          .getMessage("PhoneCaptchaAuthenticationProvider
46                  }
47                  Assert.notNull(user, "retrieveUser returned null - a violation of the i
48          }
49          try {
50                  this.preAuthenticationChecks.check(user);
51          }
52          catch (AuthenticationException ex) {
53                  if (!cacheWasUsed) {
54                          throw ex;
55                  }
56                  // There was a problem, so try again after checking
57                  // we're using latest data (i.e. not from the cache)
58                  cacheWasUsed = false;
59                  user = retrieveUser(username, (PhoneCaptchaAuthenticationToken) authent
60                  this.preAuthenticationChecks.check(user);
61          }
62          this.postAuthenticationChecks.check(user);
63          if (!cacheWasUsed) {
64                  this.userCache.putUserInCache(user);
65          }
66          Object principalToReturn = user;
67          if (this.forcePrincipalAsString) {
68                  principalToReturn = user.getUsername();
69          }
70          Authentication successAuthentication = createSuccessAuthentication(principalToR
71          return successAuthentication;
72  }
73
74  private String determineUsername(Authentication authentication) {
75          return (authentication.getPrincipal() == null) ? "NONE_PROVIDED" : authenticati
76  }
77
78
79  protected Authentication createSuccessAuthentication(Object principal, Authentication au
80                  UserDetails user) {
81          PhoneCaptchaAuthenticationToken result = PhoneCaptchaAuthenticationToken.authen
82                          authentication.getCredentials(), this.authoritiesMapper.mapAuth
```

```
85          return result;
86  }
87
88
89
90  public UserCache getUserCache() {
91          return this.userCache;
92  }
93
94  public boolean isForcePrincipalAsString() {
95          return this.forcePrincipalAsString;
96  }
97
98  public boolean isHideUserNotFoundExceptions() {
99          return this.hideUserNotFoundExceptions;
100 }
101
102
103 protected  UserDetails retrieveUser(String username, PhoneCaptchaAuthenticationToken au
104                 throws AuthenticationException{
105         try {
106                 UserDetails loadedUser = this.getUserDetailsService().loadUserByUsernam
107                 if (loadedUser == null) {
108                         throw new InternalAuthenticationServiceException(
109                                         "UserDetailsService returned null, which is an
110                 }
111                 return loadedUser;
112         }
113         catch (UsernameNotFoundException ex) {
114                 throw ex;
115         }
116         catch (InternalAuthenticationServiceException ex) {
117                 throw ex;
118         }
119         catch (Exception ex) {
120                 throw new InternalAuthenticationServiceException(ex.getMessage(), ex);
121         }
122
123 }
124
125
126 protected UserDetailsService getUserDetailsService() {
127         return this.userDetailsService;
128 }
129
130
131 public void setUserCache(UserCache userCache) {
```

```
134
135  @Override
136  public boolean supports(Class<?> authentication) {
137          return (PhoneCaptchaAuthenticationToken.class.isAssignableFrom(authentication))
138  }
139
140  protected UserDetailsChecker getPreAuthenticationChecks() {
141          return this.preAuthenticationChecks;
142  }
143
144  /**
145   * Sets the policy will be used to verify the status of the loaded
146   * <tt>UserDetails</tt> <em>before</em> validation of the credentials takes place.
147   * @param preAuthenticationChecks strategy to be invoked prior to authentication.
148   */
149  public void setPreAuthenticationChecks(UserDetailsChecker preAuthenticationChecks) {
150          this.preAuthenticationChecks = preAuthenticationChecks;
151  }
152
153  protected UserDetailsChecker getPostAuthenticationChecks() {
154          return this.postAuthenticationChecks;
155  }
156
157  public void setPostAuthenticationChecks(UserDetailsChecker postAuthenticationChecks) {
158          this.postAuthenticationChecks = postAuthenticationChecks;
159  }
160
161  public void setAuthoritiesMapper(GrantedAuthoritiesMapper authoritiesMapper) {
162          this.authoritiesMapper = authoritiesMapper;
163  }
164
165
166  private class DefaultPreAuthenticationChecks implements UserDetailsChecker {
167
168          @Override
169          public void check(UserDetails user) {
170                  if (!user.isAccountNonLocked()) {
171                          PhoneCaptchaAuthenticationProvider.this.logger
172                                          .debug("Failed to authenticate since user accou
173                          throw new LockedException(PhoneCaptchaAuthenticationProvider.th
174                                          .getMessage("AbstractUserDetailsAuthenticationP
175                  }
176                  if (!user.isEnabled()) {
177                          PhoneCaptchaAuthenticationProvider.this.logger
178                                          .debug("Failed to authenticate since user accou
179                          throw new DisabledException(PhoneCaptchaAuthenticationProvider.
180                                          .getMessage("AbstractUserDetailsAuthenticationP
```

```
183                             PhoneCaptchaAuthenticationProvider.this.logger
184                                     .debug("Failed to authenticate since user accou
185                             throw new AccountExpiredException(PhoneCaptchaAuthenticationPro
186                                     .getMessage("AbstractUserDetailsAuthenticationP
187                     }
188             }
189
190     }
191
192     private class DefaultPostAuthenticationChecks implements UserDetailsChecker {
193
194             @Override
195             public void check(UserDetails user) {
196                     if (!user.isCredentialsNonExpired()) {
197                             logger.debug("Failed to authenticate since user account credent
198                             throw new CredentialsExpiredException(PhoneCaptchaAuthenticatio
199                                     .getMessage("PhoneCaptchaAuthenticationProvider
200                                             "User credentials have expired"
201                     }
202             }
203
204     }
205
206 }
```

UserAuthenticationFilter

自定义 `UserAuthenticationFilter` 继承 `UserAuthenticationProcessingFilter` ，与 `UsernamePasswordAuthenticationFilter` 类似

java 复制代码

```
1  public class UserAuthenticationFilter extends UserAuthenticationProcessingFilter {
2
3    public static final String SPRING_SECURITY_FORM_USERNAME_KEY = "username";
4
5    public static final String SPRING_SECURITY_FORM_PASSWORD_KEY = "password";
6
7    public static final String SPRING_SECURITY_FORM_CODE_KEY = "code";
```

```
11  private String passwordParameter = SPRING_SECURITY_FORM_PASSWORD_KEY;
12
13  private final String codeParameter = SPRING_SECURITY_FORM_CODE_KEY;
14
15  private boolean postOnly = true;
16
17  private static final AntPathRequestMatcher DEFAULT_ANT_PATH_REQUEST_MATCHER = new AntPa
18                  "POST");
19
20  public UserAuthenticationFilter() {
21          super(DEFAULT_ANT_PATH_REQUEST_MATCHER);
22  }
23
24  public UserAuthenticationFilter(AuthenticationManager authenticationManager) {
25          super(DEFAULT_ANT_PATH_REQUEST_MATCHER, authenticationManager);
26  }
27
28  @Override
29  public Authentication attemptAuthentication(HttpServletRequest request, HttpServletResp
30                  throws AuthenticationException {
31          if (this.postOnly && !request.getMethod().equals("POST")) {
32                  throw new AuthenticationServiceException("Authentication method not sup
33          }
34          String username = obtainUsername(request);
35          username = (username != null) ? username.trim() : "";
36          String password = obtainPassword(request);
37          if(StringUtils.hasText(password)){
38                  password = (password != null) ? password : "";
39                  UsernamePasswordAuthenticationToken authRequest = UsernamePasswordAuthe
40                                  password);
41                  // Allow subclasses to set the "details" property
42                  setDetails(request, authRequest);
43                  return this.getAuthenticationManager().authenticate(authRequest);
44          }else {
45                  String code = obtainCode(request);
46                  assert code != null;
47                  if (!code.equals("000000")) {
48                          throw new UsernameNotFoundException("验证码错误！");
49                  }
50                  PhoneCaptchaAuthenticationToken authRequest = PhoneCaptchaAuthenticatio
51                  // Allow subclasses to set the "details" property
52                  this.setDetails(request, authRequest);
53                  return this.getAuthenticationManager().authenticate(authRequest);
54          }
55
56  }
57
```

```
60              return request.getParameter(this.passwordParameter);
61      }
62
63      @Nullable
64      protected String obtainUsername(HttpServletRequest request) {
65              return request.getParameter(this.usernameParameter);
66      }
67
68      @Nullable
69      protected String obtainCode(HttpServletRequest request) {
70              return request.getParameter(this.codeParameter);
71      }
72
73      protected void setDetails(HttpServletRequest request, UsernamePasswordAuthenticationTok
74              authRequest.setDetails(this.authenticationDetailsSource.buildDetails(request));
75      }
76
77      protected void setDetails(HttpServletRequest request, PhoneCaptchaAuthenticationToken au
78              authRequest.setDetails(this.authenticationDetailsSource.buildDetails(request));
79      }
80
81      public void setPasswordParameter(String passwordParameter) {
82              this.passwordParameter = passwordParameter;
83      }
84
85      public void setPostOnly(boolean postOnly) {
86              this.postOnly = postOnly;
87      }
88
89      public final String getUsernameParameter() {
90              return this.usernameParameter;
91      }
92
93  }
```

以上都扩展好了

UserAuthenticationProcessingFilter

UserAuthenticationFilter

PhoneCaptchaAuthenticationToken

PhoneCaptchaAuthenticationProvider

在 `AbstractAuthenticationProcessingFilter` 的找到了一个地方被

`AbstractAuthenticationFilterConfigurer`

java 复制代码

```java
public abstract class AbstractAuthenticationFilterConfigurer<B extends HttpSecurityBuilder<B>, T
        extends AbstractHttpConfigurer<T, B> {
    @Override
    public void configure(B http) throws Exception {
        PortMapper portMapper = http.getSharedObject(PortMapper.class);
        if (portMapper != null) {
            this.authenticationEntryPoint.setPortMapper(portMapper);
        }
        RequestCache requestCache = http.getSharedObject(RequestCache.class);
        if (requestCache != null) {
            this.defaultSuccessHandler.setRequestCache(requestCache);
        }
        this.authFilter.setAuthenticationManager(http.getSharedObject(AuthenticationManager.clas
        this.authFilter.setAuthenticationSuccessHandler(this.successHandler);
        this.authFilter.setAuthenticationFailureHandler(this.failureHandler);
        if (this.authenticationDetailsSource != null) {
            this.authFilter.setAuthenticationDetailsSource(this.authenticationDetailsSource);
        }
        SessionAuthenticationStrategy sessionAuthenticationStrategy = http
                .getSharedObject(SessionAuthenticationStrategy.class);
        if (sessionAuthenticationStrategy != null) {
            this.authFilter.setSessionAuthenticationStrategy(sessionAuthenticationStrategy);
        }
        RememberMeServices rememberMeServices = http.getSharedObject(RememberMeServices.class);
        if (rememberMeServices != null) {
            this.authFilter.setRememberMeServices(rememberMeServices);
        }
        SecurityContextConfigurer securityContextConfigurer = http.getConfigurer(SecurityContext
        if (securityContextConfigurer != null && securityContextConfigurer.isRequireExplicitSave
            SecurityContextRepository securityContextRepository = securityContextConfigurer
                    .getSecurityContextRepository();
            this.authFilter.setSecurityContextRepository(securityContextRepository);
        }
        this.authFilter.setSecurityContextHolderStrategy(getSecurityContextHolderStrategy());
        F filter = postProcess(this.authFilter);
        http.addFilter(filter);
    }
}
```

在里面就看到 `SessionAuthenticationStrategy` 、 `SecurityContextRepository` 初始化与 `AbstractAuthenticationProcessingFilter` 中为 `UsernamePasswordAuthenticationFilter` 时的一致，那么 `UserAuthenticationProcessingFilter` 中的 `SessionAuthenticationStrategy` 、 `SecurityContextRepository` 初始化也用这样的方式进行注入吧。

DefaultSecurityConfig 中添加到 SecurityFilterChain

java 复制代码

```java
@EnableWebSecurity
@Configuration(proxyBeanMethods = false)
public class DefaultSecurityConfig {


  @Autowired
  private PhoneCaptchaAuthenticationProvider phoneCaptchaAuthenticationProvider;



  // 过滤器链
  @Bean
  public SecurityFilterChain defaultSecurityFilterChain(HttpSecurity http) throws Exceptio
          UserAuthenticationFilter userAuthenticationFilter = new UserAuthenticationFilte
          http
                          .addFilterAt(userAuthenticationFilter, UsernamePasswordAuthenti
                          .authorizeHttpRequests(authorize ->//① 配置鉴权的
                                          authorize
                                                          .requestMatchers(
                                                                          "/assets/**",
                                                                          "/webjars/**",
                                                                          AuthorizationSe
                                                                          "/oauth2/**",
                                                                          "/oauth2/token"
                                                          ).permitAll() //② 忽略鉴权的url
                                                          .anyRequest().authenticated()//
                          )
                          .csrf(AbstractHttpConfigurer::disable)
                          .authenticationProvider(phoneCaptchaAuthenticationProvider)
                          .formLogin(login->
                                          login.loginPage(AuthorizationServerConfiguratio
                                                          .defaultSuccessUrl("/test") //
                          )
                          .oauth2Login(oauth2Login->
                                          oauth2Login.loginPage(AuthorizationServerConfig
```

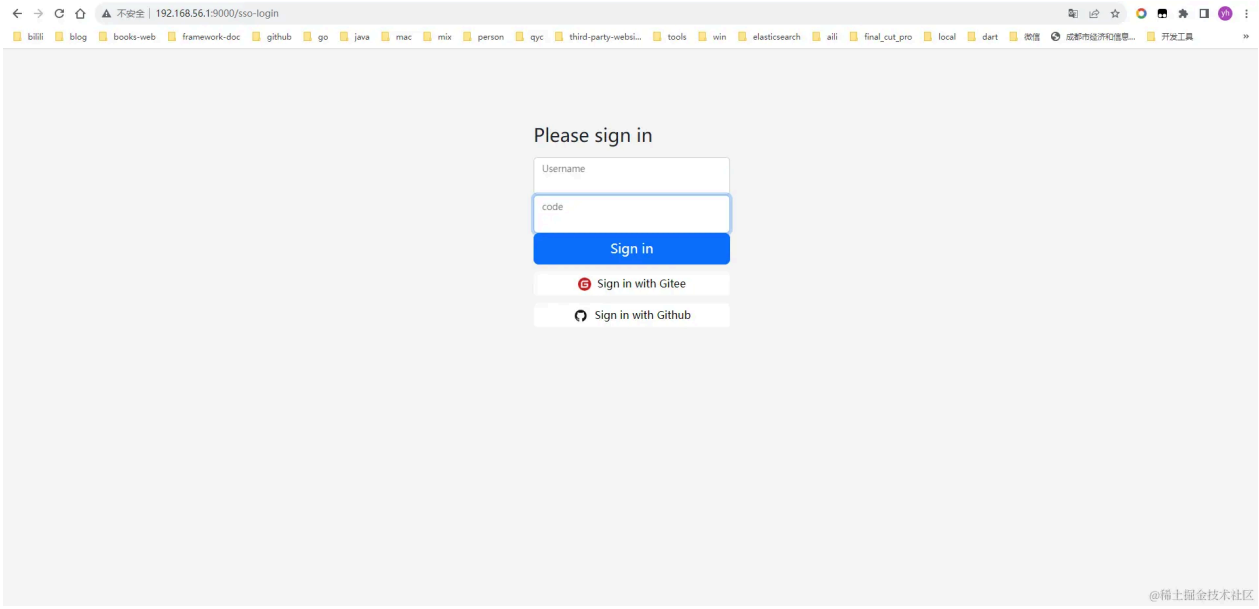
```
38            DefaultSecurityFilterChain build = http.build();
39            userAuthenticationFilter.setAuthenticationManager(http.getSharedObject(Authenti
40            userAuthenticationFilter.setSessionAuthenticationStrategy(http.getSharedObject(
41            SecurityContextRepository securityContextRepository =new DelegatingSecurityCont
42                        new RequestAttributeSecurityContextRepository(), new HttpSessio
43            userAuthenticationFilter.setSecurityContextRepository(securityContextRepository
44
45            return build;
46    }
47 }
```

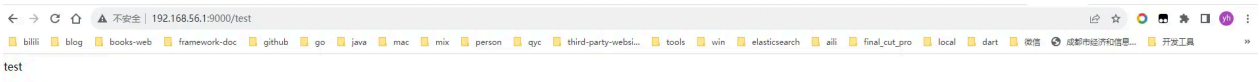
sso-login.html

```
html                                                    复制代码
```

```
1  <!DOCTYPE html>
2  <html lang="en" xmlns="http://www.w3.org/1999/xhtml" xmlns:th="https://www.thymeleaf.org"
3  <head>
4     <meta charset="utf-8" />
5     <meta name="viewport" content="width=device-width, initial-scale=1">
6     <title>Spring Authorization Server sample</title>
7     <link rel="stylesheet" href="/webjars/bootstrap/css/bootstrap.css" th:href="@{/webjars,
8     <link rel="stylesheet" href="/assets/css/signin.css" th:href="@{/assets/css/signin.css
9  </head>
10 <body>
11 <div class="container">
12    <form class="form-signin w-100 m-auto" method="post" th:action="@{/sso-login}">
13        <div th:if="${param.error}" class="alert alert-danger" role="alert">
14            Invalid username or password.
15        </div>
16        <div th:if="${param.logout}" class="alert alert-success" role="alert">
17            You have been logged out.
18        </div>
19        <h1 class="h3 mb-3 fw-normal">Please sign in</h1>
20        <div class="form-floating">
21            <input type="text" id="username" name="username" class="form-control" required
22            <label for="username">Username</label>
23        </div>
24        <div class="form-floating">
25            <input type="text" id="code" name="code" class="form-control" required>
```

```
28          <div>
29              <button class="w-100 btn btn-lg btn-primary btn-block" type="submit">Sign in</
30              <a class="w-100 btn btn-light btn-block bg-white" href="/oauth2/authorization/
31                  <img src="/assets/img/gitee.png" th:src="@{/assets/img/gitee.png}" width="
32                  Sign in with Gitee
33              </a>
34              <a class="w-100 btn btn-light btn-block bg-white" href="/oauth2/authorization/
35                  <img src="/assets/img/github.png" th:src="@{/assets/img/github.png}" width
36                  Sign in with Github
37              </a>
38          </div>
39      </form>
40  </div>
41  </body>
42  </html>
```





用spring-authorization-server的目的一定是要非常明确，就是为了不再去重复造轮子完成oauth2的认证流程，前端代码都不用写的，spring-boot-starter-oauth2-client 里面都去做了拿code去换token的整套流程，所以一定好好理解为什么要用spring-authorization-server的目的，别跑偏了。

如果出现以下异常

```java
java.lang.IllegalArgumentException: The class with com.watermelon.authorization.filter.Ph
and name of com.watermelon.authorization.filter.PhoneCaptchaAuthenticationToken is not in
If you believe this class is safe to deserialize, please provide an explicit mapping usin
If the serialization is only done by a trusted source, you can also enable default typing
See https://github.com/spring-projects/spring-security/issues/4370 for details \
  at org.springframework.security.oauth2.server.authorization.JdbcOAuth2AuthorizationServ
```

我们将 `OAuth2AuthorizationService` 实现替换为redis存储即可

```java
@Component
public class RedisOAuth2AuthorizationServiceImpl implements OAuth2AuthorizationService {


    private final static String AUTHORIZATION_TYPE = "authorization_type";

    private final static String OAUTH2_PARAMETER_NAME_ID = "id";

    private final static Long TIMEOUT = 600L;


    @Resource
    private RedisTemplate<String, Object> redisTemplate;

    @Override
    public void save(OAuth2Authorization authorization) {
        Assert.notNull(authorization, "authorization cannot be null");
        redisTemplate.setValueSerializer(RedisSerializer.java());
        redisTemplate.opsForValue().set(buildAuthorizationKey(OAUTH2_PARAMETER_NAME_ID, au
        if (isState(authorization)) {
            String state = authorization.getAttribute(OAuth2ParameterNames.STATE);
            String isStateKey = buildAuthorizationKey(OAuth2ParameterNames.STATE, state);
```

```
25          }
26          if (isAuthorizationCode(authorization)) {
27              OAuth2Authorization.Token<OAuth2AuthorizationCode> authorizationCode =
28                      authorization.getToken(OAuth2AuthorizationCode.class);
29              String tokenValue = authorizationCode.getToken().getTokenValue();
30              String isAuthorizationCodeKey = buildAuthorizationKey(OAuth2ParameterNames.CODI
31              Instant expiresAt = authorizationCode.getToken().getExpiresAt();//过期时间
32              Instant issuedAt = authorizationCode.getToken().getIssuedAt();//发放token的时间
33              Date expiresAtDate = Date.from(expiresAt);
34              Date issuedAtDate = Date.from(issuedAt);
35              redisTemplate.setValueSerializer(RedisSerializer.java());
36              redisTemplate.opsForValue().set(isAuthorizationCodeKey, authorization, TIMEOUT,
37          }
38          if (isAccessToken(authorization)) {
39              OAuth2Authorization.Token<OAuth2AccessToken> accessToken =
40                      authorization.getToken(OAuth2AccessToken.class);
41              String tokenValue = accessToken.getToken().getTokenValue();
42              String isAccessTokenKey = buildAuthorizationKey(OAuth2ParameterNames.ACCESS_TOI
43              Instant expiresAt = accessToken.getToken().getExpiresAt();//过期时间
44              Instant issuedAt = accessToken.getToken().getIssuedAt();//发放token的时间
45              Date expiresAtDate = Date.from(expiresAt);
46              Date issuedAtDate = Date.from(issuedAt);
47              redisTemplate.setValueSerializer(RedisSerializer.java());
48              redisTemplate.opsForValue().set(isAccessTokenKey, authorization, TIMEOUT, Timel
49          }
50          if (isRefreshToken(authorization)) {
51              OAuth2Authorization.Token<OAuth2RefreshToken> refreshToken =
52                      authorization.getToken(OAuth2RefreshToken.class);
53              String tokenValue = refreshToken.getToken().getTokenValue();
54              String isRefreshTokenKey = buildAuthorizationKey(OAuth2ParameterNames.REFRESH_
55              Instant expiresAt = refreshToken.getToken().getExpiresAt();//过期时间
56              Instant issuedAt = refreshToken.getToken().getIssuedAt();//发放token的时间
57              Date expiresAtDate = Date.from(expiresAt);
58              Date issuedAtDate = Date.from(issuedAt);
59              redisTemplate.setValueSerializer(RedisSerializer.java());
60              redisTemplate.opsForValue().set(isRefreshTokenKey, authorization, TIMEOUT, Time
61
62          }
63          if (isIdToken(authorization)) {
64              OAuth2Authorization.Token<OidcIdToken> idToken =
65                      authorization.getToken(OidcIdToken.class);
66              String tokenValue = idToken.getToken().getTokenValue();
67              String isIdTokenKey = buildAuthorizationKey(OidcParameterNames.ID_TOKEN, token
68              Instant expiresAt = idToken.getToken().getExpiresAt();//过期时间
69              Instant issuedAt = idToken.getToken().getIssuedAt();//发放token的时间
70              Date expiresAtDate = Date.from(expiresAt);
71              Date issuedAtDate = Date.from(issuedAt);
```

```
74          }
75          if (isDeviceCode(authorization)) {
76              OAuth2Authorization.Token<OAuth2DeviceCode> deviceCode =
77                      authorization.getToken(OAuth2DeviceCode.class);
78
79              String tokenValue = deviceCode.getToken().getTokenValue();
80              String isDeviceCodeKey = buildAuthorizationKey(OAuth2ParameterNames.DEVICE_CODI
81              Instant expiresAt = deviceCode.getToken().getExpiresAt();//过期时间
82              Instant issuedAt = deviceCode.getToken().getIssuedAt();//发放token的时间
83              Date expiresAtDate = Date.from(expiresAt);
84              Date issuedAtDate = Date.from(issuedAt);
85              redisTemplate.setValueSerializer(RedisSerializer.java());
86              redisTemplate.opsForValue().set(isDeviceCodeKey, authorization, TIMEOUT, TimeUr
87          }
88          if (isUserCode(authorization)) {
89              OAuth2Authorization.Token<OAuth2UserCode> userCode =
90                      authorization.getToken(OAuth2UserCode.class);
91              String tokenValue = userCode.getToken().getTokenValue();
92              String isUserCodeKey = buildAuthorizationKey(OAuth2ParameterNames.USER_CODE, to
93              Instant expiresAt = userCode.getToken().getExpiresAt();//过期时间
94              Instant issuedAt = userCode.getToken().getIssuedAt();//发放token的时间
95              Date expiresAtDate = Date.from(expiresAt);
96              Date issuedAtDate = Date.from(issuedAt);
97              redisTemplate.setValueSerializer(RedisSerializer.java());
98              redisTemplate.opsForValue().set(isUserCodeKey, authorization, TIMEOUT, TimeUnit
99          }
100     }
101
102     @Override
103     public void remove(OAuth2Authorization authorization) {
104         List<String> keys = new ArrayList<>();
105         String idKey = buildAuthorizationKey(OAUTH2_PARAMETER_NAME_ID, authorization.getId
106         keys.add(idKey);
107         if (isState(authorization)) {
108             String state = authorization.getAttribute(OAuth2ParameterNames.STATE);
109             String isStateKey = buildAuthorizationKey(OAuth2ParameterNames.STATE, state);
110             keys.add(isStateKey);
111         }
112         if (isAuthorizationCode(authorization)) {
113             OAuth2Authorization.Token<OAuth2AuthorizationCode> authorizationCode =
114                     authorization.getToken(OAuth2AuthorizationCode.class);
115             String tokenValue = authorizationCode.getToken().getTokenValue();
116             String isAuthorizationCodeKey = buildAuthorizationKey(OAuth2ParameterNames.CODI
117             keys.add(isAuthorizationCodeKey);
118         }
119         if (isAccessToken(authorization)) {
120             OAuth2Authorization.Token<OAuth2AccessToken> accessToken =
```

```
123             String isAccessTokenKey = buildAuthorizationKey(OAuth2ParameterNames.ACCESS_TOI
124             keys.add(isAccessTokenKey);
125         }
126         if (isRefreshToken(authorization)) {
127             OAuth2Authorization.Token<OAuth2RefreshToken> refreshToken =
128                     authorization.getToken(OAuth2RefreshToken.class);
129             String tokenValue = refreshToken.getToken().getTokenValue();
130             String isRefreshTokenKey = buildAuthorizationKey(OAuth2ParameterNames.REFRESH_T
131             keys.add(isRefreshTokenKey);
132         }
133         if (isIdToken(authorization)) {
134             OAuth2Authorization.Token<OidcIdToken> idToken =
135                     authorization.getToken(OidcIdToken.class);
136             String tokenValue = idToken.getToken().getTokenValue();
137             String isIdTokenKey = buildAuthorizationKey(OidcParameterNames.ID_TOKEN, token\
138             keys.add(isIdTokenKey);
139         }
140         if (isDeviceCode(authorization)) {
141             OAuth2Authorization.Token<OAuth2DeviceCode> deviceCode =
142                     authorization.getToken(OAuth2DeviceCode.class);
143
144             String tokenValue = deviceCode.getToken().getTokenValue();
145             String isDeviceCodeKey = buildAuthorizationKey(OAuth2ParameterNames.DEVICE_CODI
146             keys.add(isDeviceCodeKey);
147         }
148         if (isUserCode(authorization)) {
149             OAuth2Authorization.Token<OAuth2UserCode> userCode =
150                     authorization.getToken(OAuth2UserCode.class);
151             String tokenValue = userCode.getToken().getTokenValue();
152             String isUserCodeKey = buildAuthorizationKey(OAuth2ParameterNames.USER_CODE, to
153             keys.add(isUserCodeKey);
154         }
155         redisTemplate.delete(keys);
156     }
157
158     @Override
159     public OAuth2Authorization findById(String id) {
160         return (OAuth2Authorization) Optional.ofNullable(redisTemplate.opsForValue().get(bu
161     }
162
163     @Override
164     public OAuth2Authorization findByToken(String token, OAuth2TokenType tokenType) {
165         Assert.hasText(token, "token cannot be empty");
166         Assert.notNull(tokenType, "tokenType cannot be empty");
167         redisTemplate.setValueSerializer(RedisSerializer.java());
168         return (OAuth2Authorization) redisTemplate.opsForValue().get(buildAuthorizationKey(
169     }
```

```
172    private boolean isState(OAuth2Authorization authorization) {
173        return Objects.nonNull(authorization.getAttribute(OAuth2ParameterNames.STATE));
174    }
175
176
177    private boolean isAuthorizationCode(OAuth2Authorization authorization) {
178        OAuth2Authorization.Token<OAuth2AuthorizationCode> authorizationCode =
179                authorization.getToken(OAuth2AuthorizationCode.class);
180        return Objects.nonNull(authorizationCode);
181    }
182
183
184    private boolean isAccessToken(OAuth2Authorization authorization) {
185        OAuth2Authorization.Token<OAuth2AccessToken> accessToken =
186                authorization.getToken(OAuth2AccessToken.class);
187        return Objects.nonNull(accessToken) && Objects.nonNull(accessToken.getToken().getT
188    }
189
190    private boolean isRefreshToken(OAuth2Authorization authorization) {
191        OAuth2Authorization.Token<OAuth2RefreshToken> refreshToken =
192                authorization.getToken(OAuth2RefreshToken.class);
193        return Objects.nonNull(refreshToken) && Objects.nonNull(refreshToken.getToken().get
194    }
195
196    private boolean isIdToken(OAuth2Authorization authorization) {
197        OAuth2Authorization.Token<OidcIdToken> idToken =
198                authorization.getToken(OidcIdToken.class);
199        return Objects.nonNull(idToken) && Objects.nonNull(idToken.getToken().getTokenValue
200    }
201
202    private boolean isDeviceCode(OAuth2Authorization authorization) {
203        OAuth2Authorization.Token<OAuth2DeviceCode> deviceCode =
204                authorization.getToken(OAuth2DeviceCode.class);
205        return Objects.nonNull(deviceCode) && Objects.nonNull(deviceCode.getToken().getToke
206    }
207
208    private boolean isUserCode(OAuth2Authorization authorization) {
209        OAuth2Authorization.Token<OAuth2UserCode> userCode =
210                authorization.getToken(OAuth2UserCode.class);
211        return Objects.nonNull(userCode) && Objects.nonNull(userCode.getToken().getTokenVa
212    }
213
214
215    /**
216     * redis key 构建
217     *
218     * @param type  授权类型
```

```
221     */
222    private String buildAuthorizationKey(String type, String value) {
223        return AUTHORIZATION_TYPE.concat("::").concat(type).concat("::").concat(value);
224    }
225 }
```

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