

# Keycloak

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# Design

# Operation

# Understanding Password Policy with Keycloak and LDAP

## Keycloak Password Policy

[https://www.keycloak.org/docs/latest/server\\_admin/index.html#\\_password-policies](https://www.keycloak.org/docs/latest/server_admin/index.html#_password-policies)

## Password Policy at Realm level

Keycloak Password Policy has to be configured at realm-level.

## Keycloak Password Policy Types

Keycloak provides the following Password Policies:

grafik.png

| Policy Name          | Description  |
|----------------------|--|
| Expire Password      | The number of days for which the password is valid.<br>After the number of days has expired, the user is required to change their password   |
| Hashing Iterations   | This value specifies the number of times a password will be hashed before it is stored or verified.<br>The default value is 27,500   |
| Special Characters   | The number of special characters like '?!#%\$' required to be in the password string   |
| Not Recently Used    | This policy saves a history of previous passwords.<br>The number of old passwords stored is configurable.<br>When a user changes their password they cannot use any stored passwords |
| Uppercase Characters | The number of upper case letters required to be in the password string   |
| Lowercase Characters | The number of lower case letters required to be in the password string   |

|                    |   |
|--------------------|---|
| Password Blacklist | <p>This policy checks if a given password is contained in a blacklist file, which is potentially a very large file. Password blacklists are UTF-8 plain-text files with Unix line endings where every line represents a blacklisted password.</p> <p>The file name of the blacklist file must be provided as the password policy value, e.g.<br/> <i>10_million_password_list_top_1000000.txt</i>.</p> <p>Blacklist files are resolved against <code>\${jboss.server.data.dir}/password-blacklists/</code> by default. This path can be customized via the <code>keycloak.password.blacklists.path</code> system property, or the <code>blacklistsPath</code> property of the <code>passwordBlacklist</code> policy SPI configuration</p> |
| Minimum Length     | The minimum length of a password  |
| Regular Expression | Define one or more Perl regular expression patterns that passwords must match   |
| Digits             | The number of digits required to be in the password string  |
| Not Username       | When set, the password is not allowed to be the same as the username  |
| Hashing Algorithm  | <p>Passwords are not stored as clear text. Instead they are hashed using standard hashing algorithms before they are stored or validated.</p> <p>The only built-in and default algorithm available is PBKDF2.</p> <p>See the <a href="#">Server Developer Guide</a> on how to plug in your own algorithm.</p> <p>Note that if you do change the algorithm, password hashes will not change in storage until the next time the user logs in</p>  |

## Link

Thank you for this summary: <https://www.janua.fr/understanding-password-policy-with-keycloak-and-ldap/>

# Troubleshooting

# Links & Tools