

AREA_Back

Generated by Doxygen 1.13.2

1 Hierarchical Index	1
1.1 Class Hierarchy	1
2 Class Index	5
2.1 Class List	5
3 Class Documentation	9
3.1 area.server.AREA_Back.controller.AboutController Class Reference	9
3.2 area.server.AREA_Back.entity.ActionDefinition Class Reference	9
3.3 area.server.AREA_Back.controller.ActionDefinitionController Class Reference	9
3.4 area.server.AREA_Back.repository.ActionDefinitionRepository Interface Reference	10
3.4.1 Member Function Documentation	10
3.4.1.1 findByService()	10
3.4.1.2 findByServiceAndKey()	10
3.4.1.3 findByServiceAndVersion()	10
3.4.1.4 findByServiceKey()	11
3.4.1.5 findEventCapableActions()	11
3.4.1.6 findExecutableActions()	11
3.5 area.server.AREA_Back.dto.ActionDefinitionResponse Class Reference	11
3.6 area.server.AREA_Back.entity.ActionInstance Class Reference	11
3.7 area.server.AREA_Back.controller.ActionInstanceController Class Reference	12
3.8 area.server.AREA_Back.repository.ActionInstanceRepository Interface Reference	12
3.8.1 Member Function Documentation	13
3.8.1.1 countByArea()	13
3.8.1.2 countByUser()	13
3.8.1.3 findActiveGitHubActionInstances()	13
3.8.1.4 findByArea()	13
3.8.1.5 findByldWithActionDefinition()	13
3.8.1.6 findByUser()	13
3.8.1.7 findEnabledActionInstancesByService()	14
3.8.1.8 findEnabledActionInstancesByUserAndService()	14
3.8.1.9 findEnabledByArea()	14
3.8.1.10 findEnabledByUser()	14
3.8.1.11 findReactionsByArea()	14
3.9 area.server.AREA_Back.dto.ActionInstanceResponse Class Reference	15
3.10 area.server.AREA_Back.entity.ActionLink Class Reference	15
3.11 area.server.AREA_Back.controller.ActionLinkController Class Reference	15
3.12 area.server.AREA_Back.entity.ActionLinkId Class Reference	15
3.13 area.server.AREA_Back.repository.ActionLinkRepository Interface Reference	16
3.13.1 Member Function Documentation	16
3.13.1.1 deleteByActionInstance()	16
3.13.1.2 deleteByArea()	16
3.13.1.3 existsBySourceActionInstanceAndTargetActionInstance()	16

3.13.1.4	findByActionInstance()	17
3.13.1.5	findByActionInstanceId()	17
3.13.1.6	findByAreaIdOrderByOrder()	17
3.13.1.7	findByAreaOrderByOrder()	17
3.13.1.8	findBySourceActionInstance()	17
3.13.1.9	findBySourceActionInstanceId()	17
3.13.1.10	findBySourceActionInstanceIdWithTargetFetch()	18
3.13.1.11	findByTargetActionInstance()	18
3.14	area.server.AREA_Back.dto.ActionLinkResponse Class Reference	18
3.15	area.server.AREA_Back.service.ActionLinkService Class Reference	18
3.16	area.server.AREA_Back.entity.ActivationMode Class Reference	18
3.17	area.server.AREA_Back.repository.ActivationModeRepository Interface Reference	19
3.17.1	Member Function Documentation	19
3.17.1.1	findAllEnabled()	19
3.17.1.2	findByActionInstance()	19
3.17.1.3	findByActionInstanceAndEnabled()	19
3.17.1.4	findByActionInstanceAndType()	20
3.17.1.5	findByActionInstanceAndTypeAndEnabled()	20
3.17.1.6	findByTypeAndEnabled()	20
3.17.1.7	findByTypeAndEnabledWithActionInstance()	20
3.18	area.server.AREA_Back.entity.enums.ActivationModeType Enum Reference	20
3.19	area.server.AREA_Back.config.ActuatorSecurityConfig Class Reference	21
3.19.1	Detailed Description	21
3.19.2	Member Function Documentation	21
3.19.2.1	actuatorSecurityFilterChain()	21
3.20	area.server.AREA_Back.AllTestsSuite Class Reference	21
3.21	area.server.AREA_Back.entity.Area Class Reference	22
3.22	area.server.AREA_Back.dto.AreaActionRequest Class Reference	22
3.23	area.server.AREA_Back.AreaBackApplication Class Reference	22
3.24	area.server.AREA_Back.entity.AreaCollaborator Class Reference	22
3.25	area.server.AREA_Back.entity.AreaCollaboratorId Class Reference	22
3.26	area.server.AREA_Back.controller.AreaController Class Reference	23
3.27	area.server.AREA_Back.dto.AreaEventMessage Class Reference	23
3.28	area.server.AREA_Back.service.AreaOrchestrationService Class Reference	23
3.28.1	Detailed Description	24
3.28.2	Member Function Documentation	24
3.28.2.1	getActivationStatistics()	24
3.28.2.2	handleActivationModeChange()	24
3.28.2.3	handleAreaStateChange()	24
3.28.2.4	handleExecutionCompletion()	24
3.28.2.5	initializeCronActivations()	24
3.28.2.6	shutdown()	25

3.29 area.server.AREA_Back.dto.AreaReactionRequest Class Reference	25
3.30 area.server.AREA_Back.worker.AreaReactionWorker Class Reference	25
3.31 area.server.AREA_Back.repository.AreaRepository Interface Reference	25
3.31.1 Member Function Documentation	26
3.31.1.1 countByUser()	26
3.31.1.2 findByNameContainingIgnoreCase()	26
3.31.1.3 findByUser()	26
3.31.1.4 findByUserId() [1/2]	26
3.31.1.5 findByUserId() [2/2]	26
3.31.1.6 findEnabledAreasByUser()	27
3.32 area.server.AREA_Back.dto.AreaResponse Class Reference	27
3.33 area.server.AREA_Back.service.AreaService Class Reference	27
3.33.1 Member Function Documentation	27
3.33.1.1 createAreaWithActions()	27
3.34 area.server.AREA_Back.config.AsyncConfig Class Reference	28
3.35 area.server.AREA_Back.entity.AuditLog Class Reference	28
3.36 area.server.AREA_Back.controller.AuthController Class Reference	28
3.37 area.server.AREA_Back.util.AuthenticationUtils Class Reference	29
3.38 area.server.AREA_Back.dto.AuthResponse Class Reference	29
3.39 area.server.AREA_Back.service.AuthService Class Reference	29
3.40 area.server.AREA_Back.constants.AuthTokenConstants Class Reference	29
3.40.1 Detailed Description	30
3.40.2 Member Data Documentation	30
3.40.2.1 ACCESS_TOKEN_COOKIE_NAME	30
3.40.2.2 ACCESS_TOKEN_TYPE	30
3.40.2.3 REDIS_ACCESS_TOKEN_PREFIX	30
3.40.2.4 REDIS_REFRESH_TOKEN_PREFIX	30
3.40.2.5 REFRESH_TOKEN_COOKIE_NAME	30
3.40.2.6 REFRESH_TOKEN_TYPE	30
3.41 area.server.AREA_Back.entity.Service.AuthType Enum Reference	31
3.42 area.server.AREA_Back.converter.AuthTypeConverter Class Reference	31
3.43 area.server.AREA_Back.dto.BatchCreateActionLinksRequest Class Reference	31
3.44 area.server.AREA_Back.dto.CreateActionInstanceRequest Class Reference	32
3.45 area.server.AREA_Back.dto.CreateActionLinkRequest Class Reference	32
3.46 area.server.AREA_Back.dto.CreateAreaRequest Class Reference	32
3.47 area.server.AREA_Back.dto.CreateAreaWithActionsAndLinksRequest Class Reference	32
3.48 area.server.AREA_Back.dto.CreateAreaWithActionsRequest Class Reference	32
3.49 area.server.AREA_Back.dto.CreateServiceRequest Class Reference	33
3.50 area.server.AREA_Back.dto.CreateUserRequest Class Reference	33
3.51 area.server.AREA_Back.service.CronSchedulerService Class Reference	33
3.51.1 Detailed Description	33
3.51.2 Member Function Documentation	33

3.51.2.1	cancelScheduledTask()	33
3.51.2.2	getActiveTasksCount()	33
3.51.2.3	getScheduledTasksStatus()	34
3.51.2.4	loadAndScheduleAllCronActivations()	34
3.51.2.5	reloadAllCronActivations()	34
3.51.2.6	rescheduleActivationMode()	34
3.51.2.7	scheduleActivationMode()	34
3.52	area.server.AREA_Back.service.CustomUserDetailsService Class Reference	34
3.53	area.server.AREA_Back.config.DatabaseConfig Class Reference	35
3.53.1	Detailed Description	35
3.53.2	Member Function Documentation	35
3.53.2.1	dataSource()	35
3.54	area.server.AREA_Back.service.DataMappingService Class Reference	36
3.55	area.server.AREA_Back.entity.enums.DedupStrategy Enum Reference	36
3.56	area.server.AREA_Back.converter.DedupStrategyConverter Class Reference	36
3.57	area.server.AREA_Back.entity.Event Class Reference	37
3.58	area.server.AREA_Back.entity.Execution Class Reference	37
3.59	area.server.AREA_Back.repository.ExecutionRepository Interface Reference	37
3.59.1	Member Function Documentation	38
3.59.1.1	countByStatus()	38
3.59.1.2	countFailedExecutionsSince()	38
3.59.1.3	findByActionInstance()	38
3.59.1.4	findByArea()	38
3.59.1.5	findByCorrelationId()	38
3.59.1.6	findByDedupKey()	38
3.59.1.7	findByIdWithActionInstance()	39
3.59.1.8	findByStatus()	39
3.59.1.9	findByStatusAndArea()	39
3.59.1.10	findExecutionsReadyForRetry()	39
3.59.1.11	findQueuedExecutionsOrderedByQueueTime()	39
3.59.1.12	findRecentExecutionsByActionInstance()	39
3.59.1.13	findTimedOutExecutions()	40
3.60	area.server.AREA_Back.dto.ExecutionResult Class Reference	40
3.61	area.server.AREA_Back.service.ExecutionService Class Reference	40
3.62	area.server.AREA_Back.entity.enums.ExecutionStatus Enum Reference	41
3.63	area.server.AREA_Back.service.ExecutionTriggerService Class Reference	41
3.63.1	Detailed Description	41
3.63.2	Member Function Documentation	41
3.63.2.1	triggerAreaExecution()	41
3.63.2.2	triggerManualExecution()	41
3.64	area.server.AREA_Back.service.GitHubActionService Class Reference	42
3.65	area.server.AREA_Back.service.GitHubEventPollingService Class Reference	42

3.65.1 Detailed Description	42
3.66 area.server.AREA_Back.service.GitHubWebhookService Class Reference	42
3.66.1 Detailed Description	42
3.66.2 Member Function Documentation	42
3.66.2.1 processWebhook()	42
3.67 area.server.AREA_Back.service.JsonSchemaValidationService Class Reference	43
3.68 area.server.AREA_Back.filter.JwtAuthenticationFilter Class Reference	43
3.69 area.server.AREA_Back.config.JwtCookieProperties Class Reference	44
3.69.1 Detailed Description	44
3.70 area.server.AREA_Back.service.JwtService Class Reference	44
3.71 area.server.AREA_Back.dto.LocalLoginRequest Class Reference	44
3.72 area.server.AREA_Back.controller.OAuthController Class Reference	45
3.73 area.server.AREA_Back.service.OAuthGithubService Class Reference	45
3.73.1 Member Function Documentation	46
3.73.1.1 authenticate()	46
3.74 area.server.AREA_Back.service.OAuthGoogleService Class Reference	46
3.74.1 Member Function Documentation	47
3.74.1.1 authenticate()	47
3.75 area.server.AREA_Back.controller.OAuthLinkController Class Reference	48
3.76 area.server.AREA_Back.dto.OAuthLinkErrorResponse Class Reference	48
3.77 area.server.AREA_Back.dto.OAuthLoginRequest Class Reference	48
3.78 area.server.AREA_Back.dto.OAuthProvider Class Reference	48
3.79 area.server.AREA_Back.service.OAuthService Class Reference	49
3.80 area.server.AREA_Back.config.OpenApiConfig Class Reference	50
3.81 area.server.AREA_Back.service.ReactionChainService Class Reference	50
3.81.1 Detailed Description	50
3.81.2 Member Function Documentation	50
3.81.2.1 processReactionChain()	50
3.81.2.2 triggerChainReaction()	50
3.82 area.server.AREA_Back.worker.ReactionExecutor Class Reference	51
3.83 area.server.AREA_Back.config.RedisConfig Class Reference	51
3.84 area.server.AREA_Back.service.RedisEventService Class Reference	51
3.85 area.server.AREA_Back.config.RedisStreamProperties Class Reference	52
3.86 area.server.AREA_Back.service.RedisTokenService Class Reference	52
3.87 area.server.AREA_Back.dto.RegisterRequest Class Reference	52
3.88 area.server.AREA_Back.worker.RetryManager Class Reference	52
3.89 area.server.AREA_Back.config.SecurityConfig Class Reference	53
3.90 area.server.AREA_Back.entity.Service Class Reference	53
3.91 area.server.AREA_Back.entity.ServiceAccount Class Reference	53
3.92 area.server.AREA_Back.repository.ServiceAccountRepository Interface Reference	54
3.92.1 Member Function Documentation	54
3.92.1.1 findAccountsNeedingRefresh()	54

3.92.1.2 findActiveAccounts()	54
3.92.1.3 findActiveByUser()	54
3.92.1.4 findByService()	55
3.92.1.5 findByUser()	55
3.92.1.6 findByUserAndService()	55
3.93 area.server.AREA_Back.dto.ServiceAccountResponse Class Reference	55
3.94 area.server.AREA_Back.service.ServiceAccountService Class Reference	55
3.94.1 Member Function Documentation	56
3.94.1.1 createOrUpdateServiceAccount()	56
3.94.1.2 getAccessToken()	56
3.94.1.3 getServiceAccount()	56
3.94.1.4 getUserServiceAccounts()	56
3.94.1.5 hasValidToken()	56
3.94.1.6 revokeServiceAccount()	57
3.94.1.7 storeTokenMetadata()	57
3.95 area.server.AREA_Back.service.ServiceCacheService Class Reference	57
3.95.1 Detailed Description	57
3.95.2 Member Function Documentation	57
3.95.2.1 getAllServicesCached()	57
3.95.2.2 getAllServicesUncached()	58
3.95.2.3 getEnabledServicesCached()	58
3.95.2.4 invalidateServicesCache()	58
3.95.2.5 isCacheAvailable()	58
3.96 area.server.AREA_Back.dto.ServiceConnectionStatus Class Reference	59
3.97 area.server.AREA_Back.controller.ServiceController Class Reference	59
3.98 area.server.AREA_Back.repository.ServiceRepository Interface Reference	59
3.98.1 Member Function Documentation	60
3.98.1.1 existsByKey()	60
3.98.1.2 findAllEnabledServices()	60
3.98.1.3 findByAuth()	60
3.98.1.4 findByKey()	60
3.98.1.5 findByName()	60
3.98.1.6 findByNameContainingIgnoreCase()	61
3.99 area.server.AREA_Back.dto.ServiceResponse Class Reference	61
3.100 area.server.AREA_Back.controller.ServiceTokenController Class Reference	61
3.101 area.server.AREA_Back.dto.ServiceTokenRequest Class Reference	61
3.102 area.server.AREA_Back.dto.ServiceTokenResponse Class Reference	62
3.103 area.server.AREA_Back.dto.ServiceTokenStatusResponse Class Reference	62
3.104 area.server.AREA_Back.dto.StoreTokenRequest Class Reference	62
3.105 area.server.AREA_Back.TestAreaBackApplication Class Reference	62
3.106 area.server.AREA_Back.config.TestCacheConfig Class Reference	62
3.107 area.server.AREA_Back.TestcontainersConfiguration Class Reference	63

3.108 area.server.AREA_Back.controller.TestController Class Reference	63
3.109 area.server.AREA_Back.config.TestRedisConfig Class Reference	63
3.110 area.server.AREA_Back.config.TestSecurityConfig Class Reference	63
3.111 area.server.AREA_Back.service.TokenEncryptionService Class Reference	64
3.111.1 Detailed Description	64
3.111.2 Member Function Documentation	64
3.111.2.1 decryptToken()	64
3.111.2.2 encryptToken()	64
3.111.2.3 generateNewKeyAsBase64()	65
3.111.2.4 getKeyAsBase64()	65
3.112 area.server.AREA_Back.dto.TokenRefreshRequest Class Reference	65
3.113 area.server.AREA_Back.config.UnitTestConfig Class Reference	65
3.114 area.server.AREA_Back.dto.UpdateUserRequest Class Reference	65
3.115 area.server.AREA_Back.entity.User Class Reference	66
3.116 area.server.AREA_Back.controller.UserController Class Reference	66
3.117 area.server.AREA_Back.service.UserIdentityService.UserCreationType Enum Reference	66
3.118 area.server.AREA_Back.service.UserIdentityService Class Reference	66
3.118.1 Member Function Documentation	67
3.118.1.1 getOAuthIdentity()	67
3.118.1.2 getPrimaryOAuthProvider()	67
3.118.1.3 getUserCreationType()	67
3.118.1.4 getUserOAuthIdentities()	67
3.118.1.5 hasLocalIdentity()	67
3.118.1.6 hasOAuthIdentity()	68
3.118.1.7 needsServiceConnection()	68
3.119 area.server.AREA_Back.entity.UserLocalIdentity Class Reference	68
3.119.1 Member Function Documentation	68
3.119.1.1 isAccountLocked()	68
3.119.1.2 isEmailVerificationTokenValid()	68
3.119.1.3 isPasswordResetTokenValid()	69
3.120 area.server.AREA_Back.repository.UserLocalIdentityRepository Interface Reference	69
3.120.1 Member Function Documentation	69
3.120.1.1 clearEmailVerificationToken()	69
3.120.1.2 clearPasswordResetToken()	70
3.120.1.3 existsByEmail()	70
3.120.1.4 findByEmail()	70
3.120.1.5 findByEmailVerificationToken()	70
3.120.1.6 findByPasswordResetToken()	70
3.120.1.7 findByUser()	70
3.120.1.8 findByUserId()	71
3.120.1.9 incrementFailedLoginAttempts()	71
3.120.1.10 lockAccount()	71

3.120.1.11 resetFailedLoginAttempts()	71
3.121 area.server.AREA_Back.entity.UserOAuthIdentity Class Reference	71
3.122 area.server.AREA_Back.repository.UserOAuthIdentityRepository Interface Reference	72
3.122.1 Member Function Documentation	72
3.122.1.1 countByUserId()	72
3.122.1.2 deleteByUserIdAndProvider()	72
3.122.1.3 existsByProviderAndProviderUserId()	73
3.122.1.4 existsByUserAndProvider()	73
3.122.1.5 existsByUserIdAndProvider()	73
3.122.1.6 findByProvider()	73
3.122.1.7 findByProviderAndProviderUserId()	73
3.122.1.8 findByUser()	73
3.122.1.9 findByUserAndProvider()	74
3.122.1.10 findByUserId()	74
3.122.1.11 findByUserIdAndProvider()	74
3.122.1.12 findExpiredTokensWithRefreshToken()	74
3.122.1.13 updateAccessToken()	74
3.122.1.14 updateRefreshToken()	74
3.122.1.15 updateScopes()	75
3.122.1.16 updateTokenExpiration()	75
3.122.1.17 updateTokens()	75
3.123 area.server.AREA_Back.repository.UserRepository Interface Reference	75
3.123.1 Member Function Documentation	76
3.123.1.1 existsByEmail()	76
3.123.1.2 findAllEnabledUsers()	76
3.123.1.3 findByEmail()	76
3.124 area.server.AREA_Back.dto.UserResponse Class Reference	76
3.125 area.server.AREA_Back.controller.UserServiceConnectionController Class Reference	76
3.126 area.server.AREA_Back.controller.WebhookController Class Reference	77
3.126.1 Detailed Description	77
3.126.2 Member Function Documentation	77
3.126.2.1 handleGitHubWebhook()	77
3.126.2.2 handleWebhook()	77
3.126.2.3 testWebhook()	78
3.127 area.server.AREA_Back.service.WebhookDeduplicationService Class Reference	78
3.127.1 Detailed Description	78
3.127.2 Member Function Documentation	78
3.127.2.1 checkAndMark() [1/2]	78
3.127.2.2 checkAndMark() [2/2]	79
3.127.2.3 clearProviderEvents()	79
3.127.2.4 getRemainingTtl()	79
3.127.2.5 isDuplicate()	79

3.127.2.6 markAsProcessed() [1/2]	80
3.127.2.7 markAsProcessed() [2/2]	80
3.127.2.8 removeEvent()	80
3.128 area.server.AREA_Back.service.WebhookEventProcessingService Class Reference	81
3.128.1 Detailed Description	81
3.128.2 Member Function Documentation	81
3.128.2.1 processWebhookEvent()	81
3.128.2.2 processWebhookEventForUser()	82
3.128.2.3 processWebhookEventGlobally()	82
3.129 area.server.AREA_Back.service.WebhookSignatureValidator Class Reference	83
3.129.1 Detailed Description	83
3.129.2 Member Function Documentation	83
3.129.2.1 validateGitHubSignature()	83
3.129.2.2 validateHmacSha256Signature()	83
3.129.2.3 validateJwtSignature()	84
3.129.2.4 validateSignature()	84
3.129.2.5 validateSlackSignature()	85
3.130 area.server.AREA_Back.controller.WorkerController Class Reference	85
Index	87

Chapter 1

Hierarchical Index

1.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

area.server.AREA_Back.controller.AboutController	9
area.server.AREA_Back.entity.ActionDefinition	9
area.server.AREA_Back.controller.ActionDefinitionController	9
area.server.AREA_Back.dto.ActionDefinitionResponse	11
area.server.AREA_Back.entity.ActionInstance	11
area.server.AREA_Back.controller.ActionInstanceController	12
area.server.AREA_Back.dto.ActionInstanceResponse	15
area.server.AREA_Back.entity.ActionLink	15
area.server.AREA_Back.controller.ActionLinkController	15
area.server.AREA_Back.dto.ActionLinkResponse	18
area.server.AREA_Back.service.ActionLinkService	18
area.server.AREA_Back.entity.ActivationMode	18
area.server.AREA_Back.entity.enums.ActivationModeType	20
area.server.AREA_Back.config.ActuatorSecurityConfig	21
area.server.AREA_Back.AllTestsSuite	21
area.server.AREA_Back.entity.Area	22
area.server.AREA_Back.dto.AreaActionRequest	22
area.server.AREA_Back.AreaBackApplication	22
area.server.AREA_Back.entity.AreaCollaborator	22
area.server.AREA_Back.controller.AreaController	23
area.server.AREA_Back.dto.AreaEventMessage	23
area.server.AREA_Back.service.AreaOrchestrationService	23
area.server.AREA_Back.dto.AreaReactionRequest	25
area.server.AREA_Back.worker.AreaReactionWorker	25
area.server.AREA_Back.dto.AreaResponse	27
area.server.AREA_Back.service.AreaService	27
area.server.AREA_Back.config.AsyncConfig	28
AttributeConverter	
area.server.AREA_Back.converter.AuthTypeConverter	31
area.server.AREA_Back.converter.DedupStrategyConverter	36
area.server.AREA_Back.entity.AuditLog	28
area.server.AREA_Back.controller.AuthController	28
area.server.AREA_Back.util.AuthenticationUtils	29
area.server.AREA_Back.dto.AuthResponse	29
area.server.AREA_Back.service.AuthService	29

area.server.AREA_Back.constants.AuthTokenConstants	29
area.server.AREA_Back.entity.Service.AuthType	31
area.server.AREA_Back.dto.BatchCreateActionLinksRequest	31
area.server.AREA_Back.dto.CreateActionInstanceRequest	32
area.server.AREA_Back.dto.CreateActionLinkRequest	32
area.server.AREA_Back.dto.CreateAreaRequest	32
area.server.AREA_Back.dto.CreateAreaWithActionsAndLinksRequest	32
area.server.AREA_Back.dto.CreateAreaWithActionsRequest	32
area.server.AREA_Back.dto.CreateServiceRequest	33
area.server.AREA_Back.dto.CreateUserRequest	33
area.server.AREA_Back.service.CronSchedulerService	33
area.server.AREA_Back.config.DatabaseConfig	35
area.server.AREA_Back.service.DataMappingService	36
area.server.AREA_Back.entity.enums.DedupStrategy	36
area.server.AREA_Back.entity.Event	37
area.server.AREA_Back.entity.Execution	37
area.server.AREA_Back.dto.ExecutionResult	40
area.server.AREA_Back.service.ExecutionService	40
area.server.AREA_Back.entity.enums.ExecutionStatus	41
area.server.AREA_Back.service.ExecutionTriggerService	41
area.server.AREA_Back.service.GitHubActionService	42
area.server.AREA_Back.service.GitHubEventPollingService	42
area.server.AREA_Back.service.GitHubWebhookService	42
JpaRepository	
area.server.AREA_Back.repository.ActionDefinitionRepository	10
area.server.AREA_Back.repository.ActionInstanceRepository	12
area.server.AREA_Back.repository.ActionLinkRepository	16
area.server.AREA_Back.repository.ActivationModeRepository	19
area.server.AREA_Back.repository.AreaRepository	25
area.server.AREA_Back.repository.ExecutionRepository	37
area.server.AREA_Back.repository.ServiceAccountRepository	54
area.server.AREA_Back.repository.ServiceRepository	59
area.server.AREA_Back.repository.UserLocalIdentityRepository	69
area.server.AREA_Back.repository.UserOAuthIdentityRepository	72
area.server.AREA_Back.repository.UserRepository	75
area.server.AREA_Back.service.JsonSchemaValidationService	43
area.server.AREA_Back.config.JwtCookieProperties	44
area.server.AREA_Back.service.JwtService	44
area.server.AREA_Back.dto.LocalLoginRequest	44
area.server.AREA_Back.controller.OAuthController	45
area.server.AREA_Back.controller.OAuthLinkController	48
area.server.AREA_Back.dto.OAuthLinkErrorResponse	48
area.server.AREA_Back.dto.OAuthLoginRequest	48
area.server.AREA_Back.dto.OAuthProvider	48
area.server.AREA_Back.service.OAuthService	49
area.server.AREA_Back.service.OAuthGithubService	45
area.server.AREA_Back.service.OAuthGoogleService	46
OncePerRequestFilter	
area.server.AREA_Back.filter.JwtAuthenticationFilter	43
area.server.AREA_Back.config.OpenApiConfig	50
area.server.AREA_Back.service.ReactionChainService	50
area.server.AREA_Back.worker.ReactionExecutor	51
area.server.AREA_Back.config.RedisConfig	51
area.server.AREA_Back.service.RedisEventService	51
area.server.AREA_Back.config.RedisStreamProperties	52
area.server.AREA_Back.service.RedisTokenService	52
area.server.AREA_Back.dto.RegisterRequest	52
area.server.AREA_Back.worker.RetryManager	52

area.server.AREA_Back.config.SecurityConfig	53
Serializable	
area.server.AREA_Back.entity.ActionLinkId	15
area.server.AREA_Back.entity.AreaCollaboratorId	22
area.server.AREA_Back.entity.Service	53
area.server.AREA_Back.entity.ServiceAccount	53
area.server.AREA_Back.dto.ServiceAccountResponse	55
area.server.AREA_Back.service.ServiceAccountService	55
area.server.AREA_Back.service.ServiceCacheService	57
area.server.AREA_Back.dto.ServiceConnectionStatus	59
area.server.AREA_Back.controller.ServiceController	59
area.server.AREA_Back.dto.ServiceResponse	61
area.server.AREA_Back.controller.ServiceTokenController	61
area.server.AREA_Back.dto.ServiceTokenRequest	61
area.server.AREA_Back.dto.ServiceTokenResponse	62
area.server.AREA_Back.dto.ServiceTokenStatusResponse	62
area.server.AREA_Back.dto.StoreTokenRequest	62
area.server.AREA_Back.TestAreaBackApplication	62
area.server.AREA_Back.config.TestCacheConfig	62
area.server.AREA_Back.TestcontainersConfiguration	63
area.server.AREA_Back.controller.TestController	63
area.server.AREA_Back.config.TestRedisConfig	63
area.server.AREA_Back.config.TestSecurityConfig	63
area.server.AREA_Back.service.TokenEncryptionService	64
area.server.AREA_Back.dto.TokenRefreshRequest	65
area.server.AREA_Back.config.UnitTestConfig	65
area.server.AREA_Back.dto.UpdateUserRequest	65
area.server.AREA_Back.entity.User	66
area.server.AREA_Back.controller.UserController	66
area.server.AREA_Back.service.UserIdentityService.UserCreationType	66
UserDetailsService	
area.server.AREA_Back.service.CustomUserDetailsService	34
area.server.AREA_Back.service.UserIdentityService	66
area.server.AREA_Back.entity.UserLocalIdentity	68
area.server.AREA_Back.entity.UserOAuthIdentity	71
area.server.AREA_Back.dto.UserResponse	76
area.server.AREA_Back.controller.UserServiceConnectionController	76
area.server.AREA_Back.controller.WebhookController	77
area.server.AREA_Back.service.WebhookDeduplicationService	78
area.server.AREA_Back.service.WebhookEventProcessingService	81
area.server.AREA_Back.service.WebhookSignatureValidator	83
area.server.AREA_Back.controller.WorkerController	85

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

area.server.AREA_Back.controller.AboutController	9
area.server.AREA_Back.entity.ActionDefinition	9
area.server.AREA_Back.controller.ActionDefinitionController	9
area.server.AREA_Back.repository.ActionDefinitionRepository	10
area.server.AREA_Back.dto.ActionDefinitionResponse	11
area.server.AREA_Back.entity.ActionInstance	11
area.server.AREA_Back.controller.ActionInstanceController	12
area.server.AREA_Back.repository.ActionInstanceRepository	12
area.server.AREA_Back.dto.ActionInstanceResponse	15
area.server.AREA_Back.entity.ActionLink	15
area.server.AREA_Back.controller.ActionLinkController	15
area.server.AREA_Back.entity.ActionLinkId	15
area.server.AREA_Back.repository.ActionLinkRepository	16
area.server.AREA_Back.dto.ActionLinkResponse	18
area.server.AREA_Back.service.ActionLinkService	18
area.server.AREA_Back.entity.ActivationMode	18
area.server.AREA_Back.repository.ActivationModeRepository	19
area.server.AREA_Back.entity.enums.ActivationModeType	20
area.server.AREA_Back.config.ActuatorSecurityConfig	21
area.server.AREA_Back.AllTestsSuite	21
area.server.AREA_Back.entity.Area	22
area.server.AREA_Back.dto.AreaActionRequest	22
area.server.AREA_Back.AreaBackApplication	22
area.server.AREA_Back.entity.AreaCollaborator	22
area.server.AREA_Back.entity.AreaCollaboratorId	22
area.server.AREA_Back.controller.AreaController	23
area.server.AREA_Back.dto.AreaEventMessage	23
area.server.AREA_Back.service.AreaOrchestrationService	23
area.server.AREA_Back.dto.AreaReactionRequest	25
area.server.AREA_Back.worker.AreaReactionWorker	25
area.server.AREA_Back.repository.AreaRepository	25
area.server.AREA_Back.dto.AreaResponse	27
area.server.AREA_Back.service.AreaService	27
area.server.AREA_Back.config.AsyncConfig	28
area.server.AREA_Back.entity.AuditLog	28

area.server.AREA_Back.controller.AuthController	28
area.server.AREA_Back.util.AuthenticationUtils	29
area.server.AREA_Back.dto.AuthResponse	29
area.server.AREA_Back.service.AuthService	29
area.server.AREA_Back.constants.AuthTokenConstants	29
area.server.AREA_Back.entity.Service.AuthType	31
area.server.AREA_Back.converter.AuthTypeConverter	31
area.server.AREA_Back.dto.BatchCreateActionLinksRequest	31
area.server.AREA_Back.dto.CreateActionInstanceRequest	32
area.server.AREA_Back.dto.CreateActionLinkRequest	32
area.server.AREA_Back.dto.CreateAreaRequest	32
area.server.AREA_Back.dto.CreateAreaWithActionsAndLinksRequest	32
area.server.AREA_Back.dto.CreateAreaWithActionsRequest	32
area.server.AREA_Back.dto.CreateServiceRequest	33
area.server.AREA_Back.dto.CreateUserRequest	33
area.server.AREA_Back.service.CronSchedulerService	33
area.server.AREA_Back.service.CustomUserDetailsService	34
area.server.AREA_Back.config.DatabaseConfig	35
area.server.AREA_Back.service.DataMappingService	36
area.server.AREA_Back.entity.enums.DedupStrategy	36
area.server.AREA_Back.converter.DedupStrategyConverter	36
area.server.AREA_Back.entity.Event	37
area.server.AREA_Back.entity.Execution	37
area.server.AREA_Back.repository.ExecutionRepository	37
area.server.AREA_Back.dto.ExecutionResult	40
area.server.AREA_Back.service.ExecutionService	40
area.server.AREA_Back.entity.enums.ExecutionStatus	41
area.server.AREA_Back.service.ExecutionTriggerService	41
area.server.AREA_Back.service.GitHubActionService	42
area.server.AREA_Back.service.GitHubEventPollingService	42
area.server.AREA_Back.service.GitHubWebhookService	42
area.server.AREA_Back.service.JsonSchemaValidationService	43
area.server.AREA_Back.filter.JwtAuthenticationFilter	43
area.server.AREA_Back.config.JwtCookieProperties	44
area.server.AREA_Back.service.JwtService	44
area.server.AREA_Back.dto.LocalLoginRequest	44
area.server.AREA_Back.controller.OAuthController	45
area.server.AREA_Back.service.OAuthGithubService	45
area.server.AREA_Back.service.OAuthGoogleService	46
area.server.AREA_Back.controller.OAuthLinkController	48
area.server.AREA_Back.dto.OAuthLinkErrorResponse	48
area.server.AREA_Back.dto.OAuthLoginRequest	48
area.server.AREA_Back.dto.OAuthProvider	48
area.server.AREA_Back.service.OAuthService	49
area.server.AREA_Back.config.OpenApiConfig	50
area.server.AREA_Back.service.ReactionChainService	50
area.server.AREA_Back.worker.ReactionExecutor	51
area.server.AREA_Back.config.RedisConfig	51
area.server.AREA_Back.service.RedisEventService	51
area.server.AREA_Back.config.RedisStreamProperties	52
area.server.AREA_Back.service.RedisTokenService	52
area.server.AREA_Back.dto.RegisterRequest	52
area.server.AREA_Back.worker.RetryManager	52
area.server.AREA_Back.config.SecurityConfig	53
area.server.AREA_Back.entity.Service	53
area.server.AREA_Back.entity.ServiceAccount	53
area.server.AREA_Back.repository.ServiceAccountRepository	54
area.server.AREA_Back.dto.ServiceAccountResponse	55

area.server.AREA_Back.service.ServiceAccountService	55
area.server.AREA_Back.service.ServiceCacheService	57
area.server.AREA_Back.dto.ServiceConnectionStatus	59
area.server.AREA_Back.controller.ServiceController	59
area.server.AREA_Back.repository.ServiceRepository	59
area.server.AREA_Back.dto.ServiceResponse	61
area.server.AREA_Back.controller.ServiceTokenController	61
area.server.AREA_Back.dto.ServiceTokenRequest	61
area.server.AREA_Back.dto.ServiceTokenResponse	62
area.server.AREA_Back.dto.ServiceTokenStatusResponse	62
area.server.AREA_Back.dto.StoreTokenRequest	62
area.server.AREA_Back.TestAreaBackApplication	62
area.server.AREA_Back.config.TestCacheConfig	62
area.server.AREA_Back.TestcontainersConfiguration	63
area.server.AREA_Back.controller.TestController	63
area.server.AREA_Back.config.TestRedisConfig	63
area.server.AREA_Back.config.TestSecurityConfig	63
area.server.AREA_Back.service.TokenEncryptionService	64
area.server.AREA_Back.dto.TokenRefreshRequest	65
area.server.AREA_Back.config.UnitTestConfig	65
area.server.AREA_Back.dto.UpdateUserRequest	65
area.server.AREA_Back.entity.User	66
area.server.AREA_Back.controller.UserController	66
area.server.AREA_Back.service.UserIdentityService.UserCreationType	66
area.server.AREA_Back.service.UserIdentityService	66
area.server.AREA_Back.entity.UserLocalIdentity	68
area.server.AREA_Back.repository.UserLocalIdentityRepository	69
area.server.AREA_Back.entity.UserOAuthIdentity	71
area.server.AREA_Back.repository.UserOAuthIdentityRepository	72
area.server.AREA_Back.repository.UserRepository	75
area.server.AREA_Back.dto.UserResponse	76
area.server.AREA_Back.controller.UserServiceConnectionController	76
area.server.AREA_Back.controller.WebhookController	77
area.server.AREA_Back.service.WebhookDeduplicationService	78
area.server.AREA_Back.service.WebhookEventProcessingService	81
area.server.AREA_Back.service.WebhookSignatureValidator	83
area.server.AREA_Back.controller.WorkerController	85

Chapter 3

Class Documentation

3.1 `area.server.AREA_Back.controller.AboutController` Class Reference

Public Member Functions

- `ResponseEntity< Map< String, Object > > getAbout ()`

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/controller/AboutController.java`

3.2 `area.server.AREA_Back.entity.ActionDefinition` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/entity/ActionDefinition.java`

3.3 `area.server.AREA_Back.controller.ActionDefinitionController` Class Reference

Public Member Functions

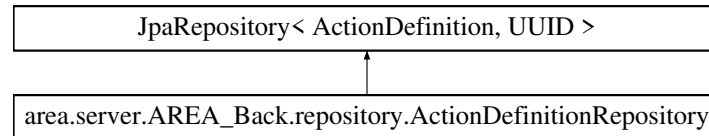
- `ResponseEntity< Page< ActionDefinitionResponse > > getAllActionDefinitions (@Parameter(description="Page number (starts at 0)") @RequestParam(defaultValue="0") int page, @Parameter(description="Page size") @RequestParam(defaultValue="20") int size, @Parameter(description="Sort field") @RequestParam(defaultValue="name") String sortBy, @Parameter(description="Sort direction (asc or desc)") @RequestParam(defaultValue="asc") String sortDir)`
- `ResponseEntity< ActionDefinitionResponse > getActionDefinitionById (@PathVariable UUID id)`
- `ResponseEntity< List< ActionDefinitionResponse > > getActionDefinitionsByServiceKey (@PathVariable String serviceKey)`
- `ResponseEntity< List< ActionDefinitionResponse > > getEventCapableActions ()`
- `ResponseEntity< List< ActionDefinitionResponse > > getExecutableActions ()`

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/controller/ActionDefinitionController.java`

3.4 area.server.AREA_Back.repository.ActionDefinitionRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.ActionDefinitionRepository:



Public Member Functions

- Optional< [ActionDefinition](#) > [findByServiceAndKey](#) ([Service](#) service, String key)
- List< [ActionDefinition](#) > [findByService](#) ([Service](#) service)
- List< [ActionDefinition](#) > [findByServiceAndVersion](#) ([Service](#) service, Integer version)
- List< [ActionDefinition](#) > [findEventCapableActions](#) ()
- List< [ActionDefinition](#) > [findExecutableActions](#) ()
- List< [ActionDefinition](#) > [findByServiceKey](#) (@Param("serviceKey") String serviceKey)

3.4.1 Member Function Documentation

3.4.1.1 findByService()

```
List< ActionDefinition > area.server.AREA_Back.repository.ActionDefinitionRepository.findByService (
    Service service)
```

Find action definitions by service

3.4.1.2 findByServiceAndKey()

```
Optional< ActionDefinition > area.server.AREA_Back.repository.ActionDefinitionRepository.findByServiceAndKey (
    Service service,
    String key)
```

Find action definition by service and key

3.4.1.3 findByServiceAndVersion()

```
List< ActionDefinition > area.server.AREA_Back.repository.ActionDefinitionRepository.findByServiceAndVersion (
    Service service,
    Integer version)
```

Find action definitions by service and version

3.4.1.4 findByServiceKey()

```
List< ActionDefinition > area.server.AREA_Back.repository.ActionDefinitionRepository.findByServiceKey (
    @Param("serviceKey") String serviceKey)
```

Find action definitions by service key

3.4.1.5 findEventCapableActions()

```
List< ActionDefinition > area.server.AREA_Back.repository.ActionDefinitionRepository.findEventCapableActions ()
```

Find event-capable action definitions

3.4.1.6 findExecutableActions()

```
List< ActionDefinition > area.server.AREA_Back.repository.ActionDefinitionRepository.findExecutableActions ()
```

Find executable action definitions

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/ActionDefinitionRepository.java

3.5 area.server.AREA_Back.dto.ActionDefinitionResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ActionDefinitionResponse.java

3.6 area.server.AREA_Back.entity.ActionInstance Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/ActionInstance.java

3.7 area.server.AREA_Back.controller.ActionInstanceController Class Reference

Public Member Functions

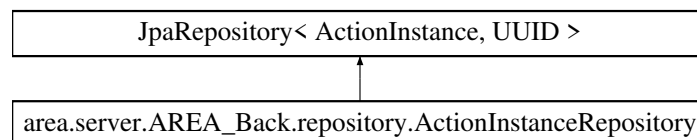
- ResponseEntity< List< [ActionInstanceResponse](#) > > **getActionInstancesByUser** (@PathVariable UUID userId)
- ResponseEntity< List< [ActionInstanceResponse](#) > > **getActionInstancesByArea** (@PathVariable UUID areald)
- ResponseEntity< [ActionInstanceResponse](#) > **getActionInstanceById** (@PathVariable UUID id)
- ResponseEntity< [ActionInstanceResponse](#) > **createActionInstance** (@Valid @RequestBody [CreateActionInstanceRequest](#) request)
- ResponseEntity< [ActionInstanceResponse](#) > **toggleActionInstance** (@PathVariable UUID id)
- ResponseEntity< Void > **deleteActionInstance** (@PathVariable UUID id)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/ActionInstanceController.java

3.8 area.server.AREA_Back.repository.ActionInstanceRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.ActionInstanceRepository:



Public Member Functions

- List< [ActionInstance](#) > **findByUser** ([User](#) user)
- List< [ActionInstance](#) > **findByArea** ([Area](#) area)
- List< [ActionInstance](#) > **findEnabledByUser** (@Param("user") [User](#) user)
- List< [ActionInstance](#) > **findEnabledByArea** (@Param("area") [Area](#) area)
- long **countByUser** ([User](#) user)
- long **countByArea** ([Area](#) area)
- List< [ActionInstance](#) > **findActiveGitHubActionInstances** ()
- List< [ActionInstance](#) > **findEnabledActionInstancesByUserAndService** (@Param("userId") UUID userId, @Param("serviceKey") String serviceKey)
- List< [ActionInstance](#) > **findEnabledActionInstancesByService** (@Param("serviceKey") String serviceKey)
- java.util.Optional< [ActionInstance](#) > **findByIdWithActionDefinition** (@Param("id") UUID id)
- List< [ActionInstance](#) > **findReactionsByArea** (@Param("area") [Area](#) area)

3.8.1 Member Function Documentation

3.8.1.1 countByArea()

```
long area.server.AREA_Back.repository.ActionInstanceRepository.countByArea (
    Area area)
```

Count action instances by area

3.8.1.2 countByUser()

```
long area.server.AREA_Back.repository.ActionInstanceRepository.countByUser (
    User user)
```

Count action instances by user

3.8.1.3 findActiveGitHubActionInstances()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findActive↵
GitHubActionInstances ()
```

Find active GitHub action instances (event-capable actions with POLL activation mode)

3.8.1.4 findByArea()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findByArea (
    Area area)
```

Find action instances by area

3.8.1.5 findByIdWithActionDefinition()

```
java.util.Optional< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.↵
findByIdWithActionDefinition (
    @Param("id") UUID id)
```

Find action instance with all relations loaded (for execution)

3.8.1.6 findByUser()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findByUser (
    User user)
```

Find action instances by user

3.8.1.7 findEnabledActionInstancesByService()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findEnabled↵  
ActionInstancesByService (   
    @Param("serviceKey") String serviceKey)
```

Find enabled action instances by service key

3.8.1.8 findEnabledActionInstancesByUserAndService()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findEnabled↵  
ActionInstancesByUserAndService (   
    @Param("userId") UUID userId,   
    @Param("serviceKey") String serviceKey)
```

Find enabled action instances by user and service key

3.8.1.9 findEnabledByArea()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findEnabled↵  
ByArea (   
    @Param("area") Area area)
```

Find enabled action instances by area

3.8.1.10 findEnabledByUser()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findEnabled↵  
ByUser (   
    @Param("user") User user)
```

Find enabled action instances by user

3.8.1.11 findReactionsByArea()

```
List< ActionInstance > area.server.AREA_Back.repository.ActionInstanceRepository.findReactions↵  
ByArea (   
    @Param("area") Area area)
```

Find reaction instances (executable actions) for an area with all relations loaded

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/ActionInstanceRepository.java

3.9 area.server.AREA_Back.dto.ActionInstanceResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ActionInstanceResponse.java

3.10 area.server.AREA_Back.entity.ActionLink Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/ActionLink.java

3.11 area.server.AREA_Back.controller.ActionLinkController Class Reference

Public Member Functions

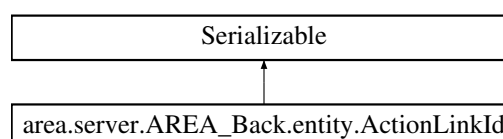
- ResponseEntity< [ActionLinkResponse](#) > **createActionLink** (@Parameter(description="Area ID") @PathVariable UUID areald, @Valid @RequestBody [CreateActionLinkRequest](#) request, HttpServletRequest httpRequest)
- ResponseEntity< List< [ActionLinkResponse](#) > > **createActionLinksBatch** (@Parameter(description="Area ID") @PathVariable UUID areald, @Valid @RequestBody [BatchCreateActionLinksRequest](#) request, HttpServletRequest httpRequest)
- ResponseEntity< List< [ActionLinkResponse](#) > > **getActionLinksByArea** (@Parameter(description="Area ID") @PathVariable UUID areald, HttpServletRequest httpRequest)
- ResponseEntity< Void > **deleteActionLink** (@Parameter(description="Area ID") @PathVariable UUID areald, @Parameter(description="Source action ID") @PathVariable UUID sourceActionId, @Parameter(description="Target action ID") @PathVariable UUID targetActionId, HttpServletRequest httpRequest)
- ResponseEntity< Void > **deleteAllActionLinksByArea** (@Parameter(description="Area ID") @PathVariable UUID areald, HttpServletRequest httpRequest)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/ActionLinkController.java

3.12 area.server.AREA_Back.entity.ActionLinkId Class Reference

Inheritance diagram for area.server.AREA_Back.entity.ActionLinkId:

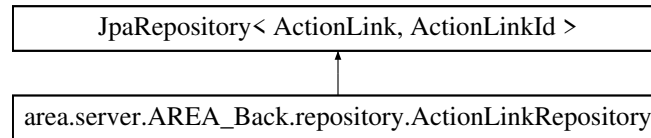


The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/ActionLinkId.java

3.13 area.server.AREA_Back.repository.ActionLinkRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.ActionLinkRepository:



Public Member Functions

- List< [ActionLink](#) > [findByAreaOrderByOrder](#) ([Area](#) area)
- List< [ActionLink](#) > [findByArealdOrderByOrder](#) (@Param("areald") UUID areald)
- List< [ActionLink](#) > [findBySourceActionInstance](#) ([ActionInstance](#) sourceActionInstance)
- List< [ActionLink](#) > [findBySourceActionInstanceIcd](#) (UUID sourceActionInstanceIcd)
- List< [ActionLink](#) > [findBySourceActionInstanceIcdWithTargetFetch](#) (@Param("sourceActionInstanceIcd") UUID sourceActionInstanceIcd)
- List< [ActionLink](#) > [findByTargetActionInstance](#) ([ActionInstance](#) targetActionInstance)
- List< [ActionLink](#) > [findByActionInstance](#) (@Param("actionInstance") [ActionInstance](#) actionInstance)
- List< [ActionLink](#) > [findByActionInstanceIcd](#) (@Param("actionInstanceIcd") UUID actionInstanceIcd)
- boolean [existsBySourceActionInstanceAndTargetActionInstance](#) ([ActionInstance](#) sourceActionInstance, [ActionInstance](#) targetActionInstance)
- void [deleteByArea](#) ([Area](#) area)
- void [deleteByActionInstance](#) (@Param("actionInstance") [ActionInstance](#) actionInstance)

3.13.1 Member Function Documentation

3.13.1.1 deleteByActionInstance()

```
void area.server.AREA_Back.repository.ActionLinkRepository.deleteByActionInstance (
    @Param("actionInstance") ActionInstance actionInstance)
```

Deletes all links involving a specific action

3.13.1.2 deleteByArea()

```
void area.server.AREA_Back.repository.ActionLinkRepository.deleteByArea (
    Area area)
```

Deletes all links for a given area

3.13.1.3 existsBySourceActionInstanceAndTargetActionInstance()

```
boolean area.server.AREA_Back.repository.ActionLinkRepository.existsBySourceActionInstance↔
AndTargetActionInstance (
    ActionInstance sourceActionInstance,
    ActionInstance targetActionInstance)
```

Checks if a link exists between two actions

3.13.1.4 findByActionInstance()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findByActionInstance  
(  
    @Param("actionInstance") ActionInstance actionInstance)
```

Finds all links involving a specific action (source or target)

3.13.1.5 findByActionInstanceId()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findByActionInstance↵  
Id (  
    @Param("actionInstanceId") UUID actionInstanceId)
```

Finds all links involving a specific action by its ID (source or target)

3.13.1.6 findByAreaIdOrderByOrder()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findByAreaIdOrderBy↵  
Order (  
    @Param("areaId") UUID areaId)
```

Finds all links for a given area by its ID

3.13.1.7 findByAreaOrderByOrder()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findByAreaOrderBy↵  
Order (  
    Area area)
```

Finds all links for a given area

3.13.1.8 findBySourceActionInstance()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findBySourceAction↵  
Instance (  
    ActionInstance sourceActionInstance)
```

Finds all links where an action is the source

3.13.1.9 findBySourceActionInstanceId()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findBySourceAction↵  
InstanceId (  
    UUID sourceActionInstanceId)
```

Finds all links where an action is the source by its ID

3.13.1.10 findBySourceActionInstanceIdWithTargetFetch()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findBySourceAction↵
InstanceIdWithTargetFetch (
    @Param("sourceActionInstanceId") UUID sourceActionInstanceId)
```

Finds all links where an action is the source by its ID with fetch join

3.13.1.11 findByTargetActionInstance()

```
List< ActionLink > area.server.AREA_Back.repository.ActionLinkRepository.findByTargetAction↵
Instance (
    ActionInstance targetActionInstance)
```

Finds all links where an action is the target

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/ActionLinkRepository.java

3.14 area.server.AREA_Back.dto.ActionLinkResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ActionLinkResponse.java

3.15 area.server.AREA_Back.service.ActionLinkService Class Reference

Public Member Functions

- [ActionLinkResponse](#) **createActionLink** ([CreateActionLinkRequest](#) request, UUID areald)
- List< [ActionLinkResponse](#) > **createActionLinksBatch** ([BatchCreateActionLinksRequest](#) request)
- List< [ActionLinkResponse](#) > **getActionLinksByArea** (UUID areald)
- void **deleteActionLink** (UUID sourceActionInstanceId, UUID targetActionInstanceId)
- void **deleteActionLinksByArea** (UUID areald)
- List< [ActionLinkResponse](#) > **getActionLinksByActionInstance** (UUID actionInstanceId)
- void **triggerLinkedActions** ([Execution](#) execution)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/ActionLinkService.java

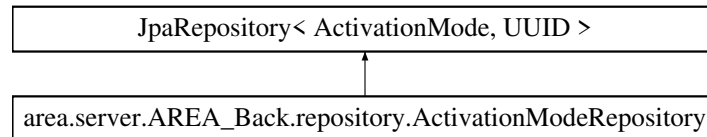
3.16 area.server.AREA_Back.entity.ActivationMode Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/ActivationMode.java

3.17 area.server.AREA_Back.repository.ActivationModeRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.ActivationModeRepository:



Public Member Functions

- List< [ActivationMode](#) > [findByActionInstance](#) ([ActionInstance](#) actionInstance)
- List< [ActivationMode](#) > [findByActionInstanceAndType](#) ([ActionInstance](#) actionInstance, [ActivationModeType](#) type)
- List< [ActivationMode](#) > [findByActionInstanceAndTypeAndEnabled](#) ([ActionInstance](#) actionInstance, [ActivationModeType](#) type, Boolean enabled)
- List< [ActivationMode](#) > [findByTypeAndEnabled](#) ([ActivationModeType](#) type, Boolean enabled)
- List< [ActivationMode](#) > [findByTypeAndEnabledWithActionInstance](#) ([ActivationModeType](#) type, Boolean enabled)
- List< [ActivationMode](#) > [findAllEnabled](#) ()
- List< [ActivationMode](#) > [findByActionInstanceAndEnabled](#) ([ActionInstance](#) actionInstance, Boolean enabled)

3.17.1 Member Function Documentation

3.17.1.1 findAllEnabled()

```
List< ActivationMode > area.server.AREA_Back.repository.ActivationModeRepository.findAllEnabled ()
```

Find all enabled activation modes

3.17.1.2 findByActionInstance()

```
List< ActivationMode > area.server.AREA_Back.repository.ActivationModeRepository.findByActionInstance (
    ActionInstance actionInstance)
```

Find activation modes by action instance

3.17.1.3 findByActionInstanceAndEnabled()

```
List< ActivationMode > area.server.AREA_Back.repository.ActivationModeRepository.findByActionInstanceAndEnabled (
    ActionInstance actionInstance,
    Boolean enabled)
```

Find activation modes by action instance and enabled status

3.17.1.4 findByActionInstanceAndType()

```
List< ActivationMode > area.server.AREA_Back.repository.ActivationModeRepository.findBy↵
ActionInstanceAndType (
    ActionInstance actionInstance,
    ActivationModeType type)
```

Find activation modes by action instance and type

3.17.1.5 findByActionInstanceAndTypeAndEnabled()

```
List< ActivationMode > area.server.AREA_Back.repository.ActivationModeRepository.findBy↵
ActionInstanceAndTypeAndEnabled (
    ActionInstance actionInstance,
    ActivationModeType type,
    Boolean enabled)
```

Find activation modes by action instance, type and enabled status

3.17.1.6 findByTypeAndEnabled()

```
List< ActivationMode > area.server.AREA_Back.repository.ActivationModeRepository.findByType↵
AndEnabled (
    ActivationModeType type,
    Boolean enabled)
```

Find enabled activation modes by type

3.17.1.7 findByTypeAndEnabledWithActionInstance()

```
List< ActivationMode > area.server.AREA_Back.repository.ActivationModeRepository.findByType↵
AndEnabledWithActionInstance (
    ActivationModeType type,
    Boolean enabled)
```

Find enabled activation modes by type with [ActionInstance](#) eagerly loaded

The documentation for this interface was generated from the following file:

- `src/main/java/area/server/AREA_Back/repository/ActivationModeRepository.java`

3.18 area.server.AREA_Back.entity.enums.ActivationModeType Enum Reference

Public Attributes

- **CRON**
- **WEBHOOK**
- **POLL**
- **MANUAL**
- **CHAIN**

The documentation for this enum was generated from the following file:

- `src/main/java/area/server/AREA_Back/entity/enums/ActivationModeType.java`

3.19 area.server.AREA_Back.config.ActuatorSecurityConfig Class Reference

Public Member Functions

- SecurityFilterChain [actuatorSecurityFilterChain](#) (HttpSecurity http) throws Exception

3.19.1 Detailed Description

Configuration for Actuator endpoints security.

3.19.2 Member Function Documentation

3.19.2.1 actuatorSecurityFilterChain()

```
SecurityFilterChain area.server.AREA_Back.config.ActuatorSecurityConfig.actuatorSecurity↔
FilterChain (
    HttpSecurity http) throws Exception
```

Security configuration for actuator endpoints. This allows prometheus endpoint to be accessed without authentication while keeping other actuator endpoints secured.

Parameters

<i>http</i>	the HttpSecurity to configure
-------------	-------------------------------

Returns

the SecurityFilterChain

Exceptions

<i>Exception</i>	if an error occurs
------------------	--------------------

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/config/ActuatorSecurityConfig.java

3.20 area.server.AREA_Back.AllTestsSuite Class Reference

The documentation for this class was generated from the following file:

- src/test/java/area/server/AREA_Back/AllTestsSuite.java

3.21 `area.server.AREA_Back.entity.Area` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/entity/Area.java`

3.22 `area.server.AREA_Back.dto.AreaActionRequest` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/AreaActionRequest.java`

3.23 `area.server.AREA_Back.AreaBackApplication` Class Reference

Static Public Member Functions

- static void **main** (String[] args)

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/AreaBackApplication.java`

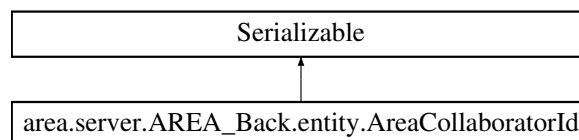
3.24 `area.server.AREA_Back.entity.AreaCollaborator` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/entity/AreaCollaborator.java`

3.25 `area.server.AREA_Back.entity.AreaCollaboratorId` Class Reference

Inheritance diagram for `area.server.AREA_Back.entity.AreaCollaboratorId`:



The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/entity/AreaCollaboratorId.java`

3.26 area.server.AREA_Back.controller.AreaController Class Reference

Public Member Functions

- `ResponseEntity< Page< AreaResponse > > getAllAreas (@RequestParam(defaultValue="0") int page, @RequestParam(defaultValue="20") int size, @RequestParam(defaultValue="id") String sortBy, @RequestParam(defaultValue="asc") String sortDir, HttpServletRequest request)`
- `ResponseEntity< AreaResponse > getAreaById (@PathVariable UUID id, HttpServletRequest request)`
- `ResponseEntity< List< AreaResponse > > getAreasByUserId (@PathVariable UUID userId, HttpServletRequest request)`
- `ResponseEntity< AreaResponse > createArea (@Valid @RequestBody CreateAreaRequest request, HttpServletRequest httpRequest)`
- `ResponseEntity<?> createAreaWithActions (@Valid @RequestBody CreateAreaWithActionsRequest request, HttpServletRequest httpRequest)`
- `ResponseEntity< Map< String, Object > > triggerArea (@PathVariable UUID id, @RequestBody(required=false) Map< String, Object > inputPayload, HttpServletRequest request)`
- `ResponseEntity< Map< String, Object > > getSchedularStatus ()`
- `ResponseEntity< Map< String, Object > > reloadScheduler ()`
- `ResponseEntity< AreaResponse > updateArea (@PathVariable UUID id, @Valid @RequestBody CreateAreaRequest request, HttpServletRequest httpRequest)`
- `ResponseEntity< Void > deleteArea (@PathVariable UUID id, HttpServletRequest request)`
- `ResponseEntity< AreaResponse > toggleArea (@PathVariable UUID id, HttpServletRequest request)`
- `ResponseEntity< List< AreaResponse > > searchAreas (@RequestParam String name, HttpServletRequest request)`
- `ResponseEntity< AreaResponse > createAreaWithActionsAndLinks (@Valid @RequestBody CreateAreaWithActionsAndLinksRequest request, HttpServletRequest httpRequest)`

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/controller/AreaController.java`

3.27 area.server.AREA_Back.dto.AreaEventMessage Class Reference

Static Public Member Functions

- `static AreaEventMessage fromExecution (final UUID executionId, final UUID actionInstanceId, final UUID areaId, final Map< String, Object > payload)`

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/AreaEventMessage.java`

3.28 area.server.AREA_Back.service.AreaOrchestrationService Class Reference

Public Member Functions

- `void initialize ()`
- `void initializeCronActivations ()`
- `void handleAreaStateChange (Area area, boolean enabled)`
- `void handleActivationModeChange (ActivationMode activationMode, boolean enabled)`
- `void handleExecutionCompletion (Execution execution, Map< String, Object > result)`
- `Map< String, Object > getActivationStatistics ()`
- `void shutdown ()`

3.28.1 Detailed Description

[Service](#) that coordinates different AREA activation modes and execution flows

3.28.2 Member Function Documentation

3.28.2.1 `getActivationStatistics()`

```
Map< String, Object > area.server.AREA_Back.service.AreaOrchestrationService.getActivationStatistics ()
```

Gets statistics about AREA activations

3.28.2.2 `handleActivationModeChange()`

```
void area.server.AREA_Back.service.AreaOrchestrationService.handleActivationModeChange (
    ActivationMode activationMode,
    boolean enabled)
```

Handles activation mode changes

3.28.2.3 `handleAreaStateChange()`

```
void area.server.AREA_Back.service.AreaOrchestrationService.handleAreaStateChange (
    Area area,
    boolean enabled)
```

Handles area state changes (enable/disable)

3.28.2.4 `handleExecutionCompletion()`

```
void area.server.AREA_Back.service.AreaOrchestrationService.handleExecutionCompletion (
    Execution execution,
    Map< String, Object > result)
```

Processes execution completion and triggers chain reactions if needed

3.28.2.5 `initializeCronActivations()`

```
void area.server.AREA_Back.service.AreaOrchestrationService.initializeCronActivations ()
```

Initializes all CRON activation modes by scheduling them

3.28.2.6 shutdown()

```
void area.server.AREA_Back.service.AreaOrchestrationService.shutdown ()
```

Shutdown hook to clean up resources

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/AreaOrchestrationService.java

3.29 area.server.AREA_Back.dto.AreaReactionRequest Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/AreaReactionRequest.java

3.30 area.server.AREA_Back.worker.AreaReactionWorker Class Reference

Public Member Functions

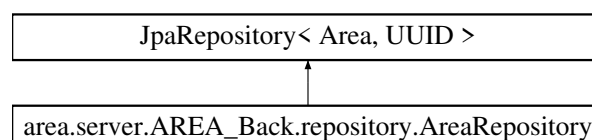
- void **initialize** ()
- void **processAreaEvents** ()
- void **processQueuedExecutions** ()
- void **processRetryExecutions** ()
- void **cleanupTimedOutExecutions** ()
- void **logStatistics** ()
- void **processEventRecord** (final MapRecord< String, Object, Object > record)
- void **processExecution** (final [Execution](#) execution)
- void **shutdown** ()
- Map< String, Object > **getWorkerStatus** ()

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/worker/AreaReactionWorker.java

3.31 area.server.AREA_Back.repository.AreaRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.AreaRepository:



Public Member Functions

- List< [Area](#) > [findByUser](#) ([User](#) user)
- List< [Area](#) > [findByUserId](#) (UUID *userId*)
- Page< [Area](#) > [findByUserId](#) (UUID *userId*, Pageable *pageable*)
- List< [Area](#) > [findEnabledAreasByUser](#) (@Param("user") [User](#) user)
- long [countByUser](#) ([User](#) user)
- List< [Area](#) > [findByNameContainingIgnoreCase](#) (@Param("name") String *name*)

3.31.1 Member Function Documentation

3.31.1.1 [countByUser\(\)](#)

```
long area.server.AREA_Back.repository.AreaRepository.countByUser (
    User user)
```

Count areas by user

3.31.1.2 [findByNameContainingIgnoreCase\(\)](#)

```
List< Area > area.server.AREA_Back.repository.AreaRepository.findByNameContainingIgnoreCase (
    @Param("name") String name)
```

Find areas by name containing (case-insensitive search)

3.31.1.3 [findByUser\(\)](#)

```
List< Area > area.server.AREA_Back.repository.AreaRepository.findByUser (
    User user)
```

Find areas by user

3.31.1.4 [findByUserId\(\)](#) [1/2]

```
List< Area > area.server.AREA_Back.repository.AreaRepository.findByUserId (
    UUID userId)
```

Find areas by user ID

3.31.1.5 [findByUserId\(\)](#) [2/2]

```
Page< Area > area.server.AREA_Back.repository.AreaRepository.findByUserId (
    UUID userId,
    Pageable pageable)
```

Find areas by user ID with pagination

3.31.1.6 findEnabledAreasByUser()

```
List< Area > area.server.AREA_Back.repository.AreaRepository.findEnabledAreasByUser (
    @Param("user") User user)
```

Find enabled areas by user

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/AreaRepository.java

3.32 area.server.AREA_Back.dto.AreaResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/AreaResponse.java

3.33 area.server.AREA_Back.service.AreaService Class Reference

Public Member Functions

- [AreaResponse](#) [createAreaWithActions](#) ([CreateAreaWithActionsRequest](#) request)
- [AreaResponse](#) [convertToResponse](#) ([Area](#) area)
- Map< String, Object > [triggerAreaManually](#) (UUID areald, Map< String, Object > inputPayload)
- [AreaResponse](#) [createAreaWithActionsAndLinks](#) ([CreateAreaWithActionsAndLinksRequest](#) request)

3.33.1 Member Function Documentation

3.33.1.1 createAreaWithActions()

```
AreaResponse area.server.AREA_Back.service.AreaService.createAreaWithActions (
    CreateAreaWithActionsRequest request)
```

Creates a new AREA with actions and reactions.

Parameters

<i>request</i>	the area creation request
----------------	---------------------------

Returns

the created area response

Exceptions

<code>IllegalArgumentException</code>	if validation fails
---------------------------------------	---------------------

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/AreaService.java`

3.34 `area.server.AREA_Back.config.AsyncConfig` Class Reference

Public Member Functions

- Executor **areaWorkerExecutor** ()
- Executor **reactionTaskExecutor** ()
- TaskScheduler **taskScheduler** ()

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/config/AsyncConfig.java`

3.35 `area.server.AREA_Back.entity.AuditLog` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/entity/AuditLog.java`

3.36 `area.server.AREA_Back.controller.AuthController` Class Reference

Public Member Functions

- `ResponseEntity< AuthResponse > register` (`@Valid @RequestBody RegisterRequest request`, `HttpServletResponse response`)
- `ResponseEntity< AuthResponse > login` (`@Valid @RequestBody LocalLoginRequest request`, `HttpServletResponse response`)
- `ResponseEntity<?> getCurrentUser` (`HttpServletRequest request`)
- `ResponseEntity< Map< String, String > > logout` (`HttpServletRequest request`, `HttpServletResponse response`)
- `ResponseEntity< AuthResponse > refreshToken` (`@RequestBody(required=false) TokenRefreshRequest request`, `HttpServletRequest httpRequest`, `HttpServletResponse response`)
- `ResponseEntity< Map< String, Object > > getAuthStatus` (`HttpServletRequest request`)
- `ResponseEntity< Map< String, String > > handleRuntimeException` (`RuntimeException e`)
- `ResponseEntity< Map< String, Object > > handleValidationException` (`org.springframework.web.bind.MethodArgumentNotValidException e`)

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/controller/AuthController.java`

3.37 area.server.AREA_Back.util.AuthenticationUtils Class Reference

Static Public Member Functions

- static CustomUserDetailsService.CustomUserPrincipal **getCurrentUser** ()
- static UUID **getCurrentUserId** ()
- static String **getCurrentUserEmail** ()
- static boolean **isCurrentUserAdmin** ()
- static boolean **isAuthenticated** ()
- static [area.server.AREA_Back.entity.User](#) **getCurrentUserEntity** ()

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/util/AuthenticationUtils.java

3.38 area.server.AREA_Back.dto.AuthResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/AuthResponse.java

3.39 area.server.AREA_Back.service.AuthService Class Reference

Public Member Functions

- [AuthResponse](#) **register** ([RegisterRequest](#) request, HttpServletResponse response)
- [AuthResponse](#) **login** ([LocalLoginRequest](#) request, HttpServletResponse response)
- [UserResponse](#) **getCurrentUser** (HttpServletRequest request)
- [User](#) **getCurrentUserEntity** (HttpServletRequest request)
- void **logout** (HttpServletRequest request, HttpServletResponse response)
- [AuthResponse](#) **refreshToken** (HttpServletRequest request, HttpServletResponse response)
- boolean **isAuthenticated** (HttpServletRequest request)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/AuthService.java

3.40 area.server.AREA_Back.constants.AuthTokenConstants Class Reference

Static Public Attributes

- static final String [ACCESS_TOKEN_COOKIE_NAME](#) = "authToken"
- static final String [REFRESH_TOKEN_COOKIE_NAME](#) = "refreshToken"
- static final String [REDIS_ACCESS_TOKEN_PREFIX](#) = "access:"
- static final String [REDIS_REFRESH_TOKEN_PREFIX](#) = "refresh:"
- static final String [ACCESS_TOKEN_TYPE](#) = "access"
- static final String [REFRESH_TOKEN_TYPE](#) = "refresh"

3.40.1 Detailed Description

Centralized constants for authentication token names Used throughout the application to ensure consistency

3.40.2 Member Data Documentation

3.40.2.1 ACCESS_TOKEN_COOKIE_NAME

```
final String area.server.AREA_Back.constants.AuthTokenConstants.ACCESS_TOKEN_COOKIE_NAME =  
"authToken" [static]
```

HTTP-Only cookie name for the access token

3.40.2.2 ACCESS_TOKEN_TYPE

```
final String area.server.AREA_Back.constants.AuthTokenConstants.ACCESS_TOKEN_TYPE = "access"  
[static]
```

Token type in the JWT payload for access tokens

3.40.2.3 REDIS_ACCESS_TOKEN_PREFIX

```
final String area.server.AREA_Back.constants.AuthTokenConstants.REDIS_ACCESS_TOKEN_PREFIX =  
"access:" [static]
```

Redis prefix for access tokens

3.40.2.4 REDIS_REFRESH_TOKEN_PREFIX

```
final String area.server.AREA_Back.constants.AuthTokenConstants.REDIS_REFRESH_TOKEN_PREFIX =  
"refresh:" [static]
```

Redis prefix for refresh tokens

3.40.2.5 REFRESH_TOKEN_COOKIE_NAME

```
final String area.server.AREA_Back.constants.AuthTokenConstants.REFRESH_TOKEN_COOKIE_NAME =  
"refreshToken" [static]
```

HTTP-Only cookie name for the refresh token

3.40.2.6 REFRESH_TOKEN_TYPE

```
final String area.server.AREA_Back.constants.AuthTokenConstants.REFRESH_TOKEN_TYPE = "refresh"  
[static]
```

Token type in the JWT payload for refresh tokens

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/constants/AuthTokenConstants.java

3.41 area.server.AREA_Back.entity.Service.AuthType Enum Reference

Public Attributes

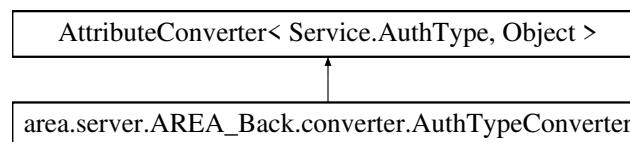
- **OAUTH2**
- **APIKEY**
- **NONE**

The documentation for this enum was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/Service.java

3.42 area.server.AREA_Back.converter.AuthTypeConverter Class Reference

Inheritance diagram for area.server.AREA_Back.converter.AuthTypeConverter:



Public Member Functions

- Object **convertToDatabaseColumn** (final Service.AuthType authType)
- Service.AuthType **convertToEntityAttribute** (final Object dbData)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/converter/AuthTypeConverter.java

3.43 area.server.AREA_Back.dto.BatchCreateActionLinksRequest Class Reference

Classes

- class **ActionLinkData**

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/BatchCreateActionLinksRequest.java

3.44 `area.server.AREA_Back.dto.CreateActionInstanceRequest` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/CreateActionInstanceRequest.java`

3.45 `area.server.AREA_Back.dto.CreateActionLinkRequest` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/CreateActionLinkRequest.java`

3.46 `area.server.AREA_Back.dto.CreateAreaRequest` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/CreateAreaRequest.java`

3.47 `area.server.AREA_Back.dto.CreateAreaWithActionsAndLinksRequest` Class Reference

Classes

- class `ActionConnectionRequest`

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/CreateAreaWithActionsAndLinksRequest.java`

3.48 `area.server.AREA_Back.dto.CreateAreaWithActionsRequest` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/CreateAreaWithActionsRequest.java`

3.49 area.server.AREA_Back.dto.CreateServiceRequest Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/CreateServiceRequest.java

3.50 area.server.AREA_Back.dto.CreateUserRequest Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/CreateUserRequest.java

3.51 area.server.AREA_Back.service.CronSchedulerService Class Reference

Public Member Functions

- void **initialize** ()
- void **shutdown** ()
- void **loadAndScheduleAllCronActivations** ()
- void **scheduleActivationMode** ([ActivationMode](#) activationMode)
- void **cancelScheduledTask** (UUID activationModeId)
- void **rescheduleActivationMode** ([ActivationMode](#) activationMode)
- void **reloadAllCronActivations** ()
- Map< UUID, Boolean > **getScheduledTasksStatus** ()
- int **getActiveTasksCount** ()

3.51.1 Detailed Description

[Service](#) for managing CRON-based scheduled tasks for AREA activations

3.51.2 Member Function Documentation

3.51.2.1 cancelScheduledTask()

```
void area.server.AREA_Back.service.CronSchedulerService.cancelScheduledTask (
    UUID activationModeId)
```

Cancels a scheduled task

3.51.2.2 getActiveTasksCount()

```
int area.server.AREA_Back.service.CronSchedulerService.getActiveTasksCount ()
```

Gets the count of active scheduled tasks

3.51.2.3 `getScheduledTasksStatus()`

```
Map< UUID, Boolean > area.server.AREA_Back.service.CronSchedulerService.getScheduledTasks↵
Status ()
```

Gets the status of all scheduled tasks

3.51.2.4 `loadAndScheduleAllCronActivations()`

```
void area.server.AREA_Back.service.CronSchedulerService.loadAndScheduleAllCronActivations ()
```

Loads all enabled CRON activation modes and schedules them

3.51.2.5 `reloadAllCronActivations()`

```
void area.server.AREA_Back.service.CronSchedulerService.reloadAllCronActivations ()
```

Reloads and reschedules all CRON activation modes

3.51.2.6 `rescheduleActivationMode()`

```
void area.server.AREA_Back.service.CronSchedulerService.rescheduleActivationMode (
    ActivationMode activationMode)
```

Reschedules an activation mode (useful when configuration changes)

3.51.2.7 `scheduleActivationMode()`

```
void area.server.AREA_Back.service.CronSchedulerService.scheduleActivationMode (
    ActivationMode activationMode)
```

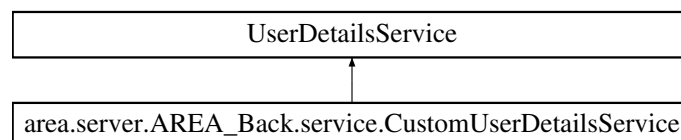
Schedules a single activation mode

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/CronSchedulerService.java`

3.52 `area.server.AREA_Back.service.CustomUserDetailsService` Class Reference

Inheritance diagram for `area.server.AREA_Back.service.CustomUserDetailsService`:



Classes

- class **CustomUserPrincipal**

Public Member Functions

- UserDetails **loadUserByUsername** (String username) throws UsernameNotFoundException

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/CustomUserDetailsService.java

3.53 area.server.AREA_Back.config.DatabaseConfig Class Reference

Public Member Functions

- DataSource [dataSource](#) ()

3.53.1 Detailed Description

PostgreSQL database configuration. This class explicitly configures the DataSource for PostgreSQL and validates the configuration at application startup.

Note: This configuration is only active for non-test profiles to avoid conflicts with test configurations.

3.53.2 Member Function Documentation

3.53.2.1 dataSource()

```
DataSource area.server.AREA_Back.config.DatabaseConfig.dataSource ()
```

Main DataSource configuration for PostgreSQL. This method validates that all database properties are set.

Returns

DataSource configured for PostgreSQL

Exceptions

<i>IllegalStateException</i>	if database properties are not set
------------------------------	------------------------------------

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/config/DatabaseConfig.java

3.54 `area.server.AREA_Back.service.DataMappingService` Class Reference

Public Member Functions

- `Map< String, Object > applyMapping` (`Map< String, Object > input`, `Map< String, Object > mapping`)
- `boolean evaluateCondition` (`Map< String, Object > data`, `Map< String, Object > condition`)

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/DataMappingService.java`

3.55 `area.server.AREA_Back.entity.enums.DedupStrategy` Enum Reference

Public Attributes

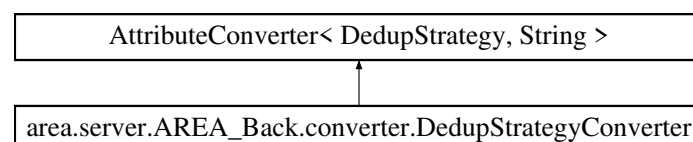
- `NONE`
- `BY_PAYLOAD_HASH`
- `BY_EXTERNAL_ID`

The documentation for this enum was generated from the following file:

- `src/main/java/area/server/AREA_Back/entity/enums/DedupStrategy.java`

3.56 `area.server.AREA_Back.converter.DedupStrategyConverter` Class Reference

Inheritance diagram for `area.server.AREA_Back.converter.DedupStrategyConverter`:



Public Member Functions

- `String convertToDatabaseColumn` (final `DedupStrategy` dedupStrategy)
- `DedupStrategy convertToEntityAttribute` (final `String` dbData)

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/converter/DedupStrategyConverter.java`

3.57 area.server.AREA_Back.entity.Event Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/Event.java

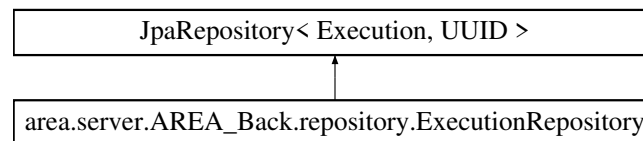
3.58 area.server.AREA_Back.entity.Execution Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/Execution.java

3.59 area.server.AREA_Back.repository.ExecutionRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.ExecutionRepository:



Public Member Functions

- List< Execution > [findByStatus](#) (ExecutionStatus status)
- List< Execution > [findByActionInstance](#) (ActionInstance actionInstance)
- List< Execution > [findByArea](#) (Area area)
- List< Execution > [findQueuedExecutionsOrderedByQueueTime](#) ()
- List< Execution > [findExecutionsReadyForRetry](#) (@Param("retryThreshold") LocalDateTime retryThreshold)
- List< Execution > [findTimedOutExecutions](#) (@Param("timeoutThreshold") LocalDateTime timeoutThreshold)
- List< Execution > [findByCorrelationId](#) (UUID correlationId)
- List< Execution > [findByStatusAndArea](#) (@Param("status") ExecutionStatus status, @Param("area") Area area)
- long [countByStatus](#) (ExecutionStatus status)
- long [countFailedExecutionsSince](#) (@Param("actionInstance") ActionInstance actionInstance, @Param("since") LocalDateTime since)
- List< Execution > [findByDedupKey](#) (String dedupKey)
- List< Execution > [findRecentExecutionsByActionInstance](#) (@Param("actionInstance") ActionInstance actionInstance, @Param("since") LocalDateTime since)
- java.util.Optional< Execution > [findByIdWithActionInstance](#) (@Param("id") UUID id)

3.59.1 Member Function Documentation

3.59.1.1 countByStatus()

```
long area.server.AREA_Back.repository.ExecutionRepository.countByStatus (
    ExecutionStatus status)
```

Count executions by status

3.59.1.2 countFailedExecutionsSince()

```
long area.server.AREA_Back.repository.ExecutionRepository.countFailedExecutionsSince (
    @Param("actionInstance") ActionInstance actionInstance,
    @Param("since") LocalDateTime since)
```

Count failed executions for a specific action instance in the last period

3.59.1.3 findByActionInstance()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findByActionInstance (
    ActionInstance actionInstance)
```

Find executions by action instance

3.59.1.4 findByArea()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findByArea (
    Area area)
```

Find executions by area

3.59.1.5 findByCorrelationId()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findByCorrelationId (
    UUID correlationId)
```

Find executions by correlation ID

3.59.1.6 findByDedupKey()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findByDedupKey (
    String dedupKey)
```

Find executions by dedup key

3.59.1.7 findByIdWithActionInstance()

```
java.util.Optional< Execution > area.server.AREA_Back.repository.ExecutionRepository.findByIdWithActionInstance (
    @Param("id") UUID id)
```

Find execution by ID with all relations loaded (for processing)

3.59.1.8 findByStatus()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findByStatus (
    ExecutionStatus status)
```

Find executions by status

3.59.1.9 findByStatusAndArea()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findByStatusAndArea (
    @Param("status") ExecutionStatus status,
    @Param("area") Area area)
```

Find executions by status and area

3.59.1.10 findExecutionsReadyForRetry()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findExecutionsReadyForRetry (
    @Param("retryThreshold") LocalDateTime retryThreshold)
```

Find executions that need retry (RETRY status and not recently attempted)

3.59.1.11 findQueuedExecutionsOrderedByQueueTime()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findQueuedExecutionsOrderedByQueueTime ()
```

Find queued executions ordered by queue time

3.59.1.12 findRecentExecutionsByActionInstance()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findRecentExecutionsByActionInstance (
    @Param("actionInstance") ActionInstance actionInstance,
    @Param("since") LocalDateTime since)
```

Find recent executions for an action instance

3.59.1.13 findTimedOutExecutions()

```
List< Execution > area.server.AREA_Back.repository.ExecutionRepository.findTimedOutExecutions
(
    @Param("timeoutThreshold") LocalDateTime timeoutThreshold)
```

Find running executions that may have timed out

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/ExecutionRepository.java

3.60 area.server.AREA_Back.dto.ExecutionResult Class Reference

Static Public Member Functions

- static [ExecutionResult](#) **success** (final UUID executionId, final Map< String, Object > outputPayload, final LocalDateTime startedAt)
- static [ExecutionResult](#) **failure** (final UUID executionId, final String errorMessage, final Map< String, Object > error, final LocalDateTime startedAt, final boolean shouldRetry, final LocalDateTime nextRetryAt)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ExecutionResult.java

3.61 area.server.AREA_Back.service.ExecutionService Class Reference

Public Member Functions

- [Execution](#) **createExecution** ([ActionInstance](#) actionInstance, [ActivationMode](#) activationMode, Map< String, Object > inputPayload, UUID correlationId)
- [Execution](#) **createExecutionWithActivationType** ([ActionInstance](#) actionInstance, [ActivationModeType](#) activationModeType, Map< String, Object > inputPayload, UUID correlationId)
- [Execution](#) **updateExecutionWithResult** ([ExecutionResult](#) result)
- [Execution](#) **markExecutionAsStarted** (UUID executionId)
- List< [Execution](#) > **getQueuedExecutions** ()
- List< [Execution](#) > **getExecutionsReadyForRetry** (LocalDateTime retryThreshold)
- List< [Execution](#) > **getTimedOutExecutions** (LocalDateTime timeoutThreshold)
- [Execution](#) **cancelExecution** (UUID executionId, String reason)
- Map< String, Long > **getExecutionStatistics** ()
- boolean **hasExcessiveFailures** ([ActionInstance](#) actionInstance, int maxFailures, LocalDateTime since)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/ExecutionService.java

3.62 area.server.AREA_Back.entity.enums.ExecutionStatus Enum Reference

Public Attributes

- QUEUED
- RUNNING
- OK
- RETRY
- FAILED
- CANCELED

The documentation for this enum was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/enums/ExecutionStatus.java

3.63 area.server.AREA_Back.service.ExecutionTriggerService Class Reference

Public Member Functions

- void [triggerAreaExecution](#) ([ActionInstance](#) actionInstance, [ActivationModeType](#) activationMode, Map< String, Object > inputPayload)
- [Execution](#) [triggerManualExecution](#) ([ActionInstance](#) actionInstance, Map< String, Object > inputPayload)

3.63.1 Detailed Description

[Service](#) for triggering AREA executions from various sources

3.63.2 Member Function Documentation

3.63.2.1 triggerAreaExecution()

```
void area.server.AREA_Back.service.ExecutionTriggerService.triggerAreaExecution (
    ActionInstance actionInstance,
    ActivationModeType activationMode,
    Map< String, Object > inputPayload)
```

Triggers execution of an AREA based on an action instance

3.63.2.2 triggerManualExecution()

```
Execution area.server.AREA_Back.service.ExecutionTriggerService.triggerManualExecution (
    ActionInstance actionInstance,
    Map< String, Object > inputPayload)
```

Triggers manual execution of an AREA

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/ExecutionTriggerService.java

3.64 `area.server.AREA_Back.service.GitHubActionService` Class Reference

Public Member Functions

- `Map< String, Object > executeGitHubAction` (String actionKey, Map< String, Object > inputPayload, Map< String, Object > actionParams, UUID userId)
- `List< Map< String, Object > > checkGitHubEvents` (String actionKey, Map< String, Object > actionParams, UUID userId, LocalDateTime lastCheck)

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/GitHubActionService.java`

3.65 `area.server.AREA_Back.service.GitHubEventPollingService` Class Reference

Public Member Functions

- `void pollGitHubEvents` ()

3.65.1 Detailed Description

[Service](#) for checking GitHub events (polling-based implementation) This service runs periodically to check for new GitHub events

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/GitHubEventPollingService.java`

3.66 `area.server.AREA_Back.service.GitHubWebhookService` Class Reference

Public Member Functions

- `Map< String, Object > processWebhook` (UUID userId, String eventType, String signature, Map< String, Object > payload)

3.66.1 Detailed Description

[Service](#) for processing GitHub webhooks This service will be enhanced to handle real webhook processing in future iterations

3.66.2 Member Function Documentation

3.66.2.1 `processWebhook()`

```
Map< String, Object > area.server.AREA_Back.service.GitHubWebhookService.processWebhook (
    UUID userId,
    String eventType,
    String signature,
    Map< String, Object > payload)
```

Process a GitHub webhook event

Parameters

<i>userId</i>	User ID for which to process the webhook
<i>eventType</i>	GitHub event type (e.g., issues, pull_request, push)
<i>signature</i>	GitHub webhook signature for verification
<i>payload</i>	The webhook payload

Returns

Processing result

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/GitHubWebhookService.java

3.67 area.server.AREA_Back.service.JsonSchemaValidationService Class Reference

Public Member Functions

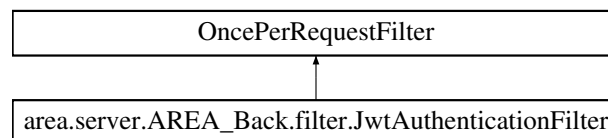
- void **validateParameters** (Map< String, Object > inputSchema, Map< String, Object > parameters)
- String **validateParametersQuietly** (Map< String, Object > inputSchema, Map< String, Object > parameters)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/JsonSchemaValidationService.java

3.68 area.server.AREA_Back.filter.JwtAuthenticationFilter Class Reference

Inheritance diagram for area.server.AREA_Back.filter.JwtAuthenticationFilter:



Protected Member Functions

- void **doFilterInternal** (@NonNull final HttpServletRequest request, @NonNull final HttpServletResponse response, @NonNull final FilterChain filterChain) throws ServletException, IOException

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/filter/JwtAuthenticationFilter.java

3.69 area.server.AREA_Back.config.JwtCookieProperties Class Reference

3.69.1 Detailed Description

JWT cookie configuration based on application properties. Allows different configuration depending on the environment (dev/prod).

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/config/JwtCookieProperties.java

3.70 area.server.AREA_Back.service.JwtService Class Reference

Public Member Functions

- String **generateAccessToken** (UUID userId, String email)
- String **generateRefreshToken** (UUID userId, String email)
- UUID **extractUserIdFromAccessToken** (String token)
- UUID **extractUserIdFromRefreshToken** (String token)
- String **extractEmailFromAccessToken** (String token)
- String **extractEmailFromRefreshToken** (String token)
- boolean **isAccessTokenValid** (String token, UUID userId)
- boolean **isRefreshTokenValid** (String token, UUID userId)
- boolean **isAccessTokenExpired** (String token)
- boolean **isRefreshTokenExpired** (String token)
- long **getAccessTokenExpirationMs** ()
- long **getRefreshTokenExpirationMs** ()

Static Public Member Functions

- static String **generateSecureKey** ()

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/JwtService.java

3.71 area.server.AREA_Back.dto.LocalLoginRequest Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/LocalLoginRequest.java

3.72 area.server.AREA_Back.controller.OAuthController Class Reference

Public Member Functions

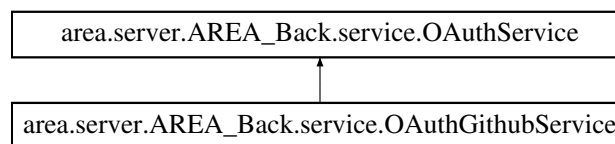
- **OAuthController** (List< [OAuthService](#) > oauthServices)
- ResponseEntity< List< [OAuthProvider](#) > > **getProviders** ()
- ResponseEntity< String > **authorize** (@PathVariable("provider") String provider, HttpServletResponse response)
- ResponseEntity< [AuthResponse](#) > **exchangeToken** (@PathVariable("provider") String provider, @RequestBody Map< String, String > requestBody, HttpServletResponse response)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/OAuthController.java

3.73 area.server.AREA_Back.service.OAuthGithubService Class Reference

Inheritance diagram for area.server.AREA_Back.service.OAuthGithubService:



Public Member Functions

- **OAuthGithubService** (@Value("\${spring.security.oauth2.client.registration.github.client-id}") String githubClientId, @Value("\${spring.security.oauth2.client.registration.github.client-secret}") String githubClientSecret, @Value("\${OAUTH_REDIRECT_BASE_URL:http://localhost:3000}") String redirectBaseUrl, [JwtService](#) jwtService, [RedisTokenService](#) redisTokenService, PasswordEncoder passwordEncoder)
- [AuthResponse](#) **authenticate** ([OAuthLoginRequest](#) request, HttpServletResponse response)
- [UserOAuthIdentity](#) **linkToExistingUser** ([User](#) existingUser, String authorizationCode)

Public Member Functions inherited from [area.server.AREA_Back.service.OAuthService](#)

- String **getProviderKey** ()
- String **getProviderLabel** ()
- String **getProviderLogoUrl** ()
- String **getUserAuthUrl** ()
- String **getClientId** ()
- String **getClientSecret** ()

Additional Inherited Members

Protected Member Functions inherited from [area.server.AREA_Back.service.OAuthService](#)

- **OAuthService** (String providerKey, String providerLabel, String providerLogoUrl, String userAuthUrl, String clientId, String clientSecret, [JwtService](#) jwtService)
- void **setTokenCookies** (HttpServletResponse response, String accessToken, String refreshToken)

Protected Attributes inherited from [area.server.AREA_Back.service.OAuthService](#)

- final String **providerKey**
- final String **providerLabel**
- final String **providerLogoUrl**
- final String **userAuthUrl**
- final String **clientId**
- final String **clientSecret**
- final [JwtService](#) **jwtService**
- PasswordEncoder **passwordEncoder**
- [UserOAuthIdentityRepository](#) **userOAuthIdentityRepository**
- [UserRepository](#) **userRepository**
- [RedisTokenService](#) **redisTokenService**

3.73.1 Member Function Documentation

3.73.1.1 authenticate()

```
AuthResponse area.server.AREA_Back.service.OAuthGithubService.authenticate (
    OAuthLoginRequest request,
    HttpServletResponse response)
```

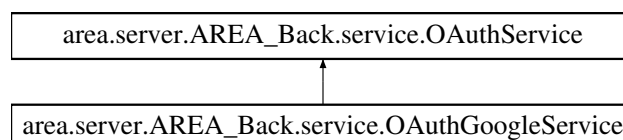
Reimplemented from [area.server.AREA_Back.service.OAuthService](#).

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/OAuthGithubService.java

3.74 [area.server.AREA_Back.service.OAuthGoogleService](#) Class Reference

Inheritance diagram for [area.server.AREA_Back.service.OAuthGoogleService](#):



Public Member Functions

- **OAuthGoogleService** (@Value("\${spring.security.oauth2.client.registration.google.client-id}") String googleClientId, @Value("\${spring.security.oauth2.client.registration.google.client-secret}") String googleClientSecret, PasswordEncoder passwordEncoder, [UserOAuthIdentityRepository](#) userOAuthIdentityRepository, [UserRepository](#) userRepository, [RedisTokenService](#) redisTokenService, [JwtService](#) jwtService)
- [AuthResponse](#) **authenticate** ([OAuthLoginRequest](#) request, [HttpServletResponse](#) response)

Public Member Functions inherited from [area.server.AREA_Back.service.OAuthService](#)

- String **getProviderKey** ()
- String **getProviderLabel** ()
- String **getProviderLogoUrl** ()
- String **getUserAuthUrl** ()
- String **getClientId** ()
- String **getClientSecret** ()

Additional Inherited Members

Protected Member Functions inherited from [area.server.AREA_Back.service.OAuthService](#)

- **OAuthService** (String providerKey, String providerLabel, String providerLogoUrl, String userAuthUrl, String clientId, String clientSecret, [JwtService](#) jwtService)
- void **setTokenCookies** ([HttpServletResponse](#) response, String accessToken, String refreshToken)

Protected Attributes inherited from [area.server.AREA_Back.service.OAuthService](#)

- final String **providerKey**
- final String **providerLabel**
- final String **providerLogoUrl**
- final String **userAuthUrl**
- final String **clientId**
- final String **clientSecret**
- final [JwtService](#) **jwtService**
- PasswordEncoder **passwordEncoder**
- [UserOAuthIdentityRepository](#) **userOAuthIdentityRepository**
- [UserRepository](#) **userRepository**
- [RedisTokenService](#) **redisTokenService**

3.74.1 Member Function Documentation

3.74.1.1 authenticate()

```
AuthResponse area.server.AREA_Back.service.OAuthGoogleService.authenticate (
    OAuthLoginRequest request,
    HttpServletResponse response)
```

Reimplemented from [area.server.AREA_Back.service.OAuthService](#).

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/OAuthGoogleService.java

3.75 area.server.AREA_Back.controller.OAuthLinkController Class Reference

Public Member Functions

- `ResponseEntity<?> linkOAuthAccount (@PathVariable String provider, @RequestBody Map< String, String > requestBody, HttpServletRequest request)`

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/controller/OAuthLinkController.java`

3.76 area.server.AREA_Back.dto.OAuthLinkErrorResponse Class Reference

Static Public Member Functions

- static `OAuthLinkErrorResponse accountAlreadyLinked (String provider)`
- static `OAuthLinkErrorResponse emailRequired (String provider)`
- static `OAuthLinkErrorResponse internalError ()`

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/OAuthLinkErrorResponse.java`

3.77 area.server.AREA_Back.dto.OAuthLoginRequest Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/OAuthLoginRequest.java`

3.78 area.server.AREA_Back.dto.OAuthProvider Class Reference

Public Member Functions

- `OAuthProvider (final String providerKey, final String providerLabel, final String providerLogoUrl, final String userAuthUrl, final String clientId)`
- String `getProviderKey ()`
- String `getProviderLabel ()`
- String `getProviderLogoUrl ()`
- String `getUserAuthUrl ()`
- String `getClientId ()`
- boolean `equals (final Object o)`
- int `hashCode ()`

Static Public Member Functions

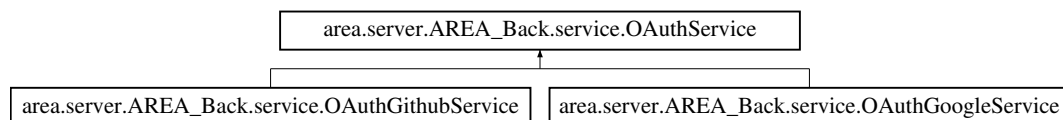
- static [OAuthProvider](#) **fromService** (final [OAuthService](#) service)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/OAuthProvider.java

3.79 area.server.AREA_Back.service.OAuthService Class Reference

Inheritance diagram for area.server.AREA_Back.service.OAuthService:

**Public Member Functions**

- String **getProviderKey** ()
- String **getProviderLabel** ()
- String **getProviderLogoUrl** ()
- String **getUserAuthUrl** ()
- String **getClientId** ()
- String **getClientSecret** ()
- abstract [AuthResponse](#) **authenticate** ([OAuthLoginRequest](#) request, [HttpServletResponse](#) response)

Protected Member Functions

- **OAuthService** (String providerKey, String providerLabel, String providerLogoUrl, String userAuthUrl, String clientId, String clientSecret, [JwtService](#) jwtService)
- void **setTokenCookies** ([HttpServletResponse](#) response, String accessToken, String refreshToken)

Protected Attributes

- final String **providerKey**
- final String **providerLabel**
- final String **providerLogoUrl**
- final String **userAuthUrl**
- final String **clientId**
- final String **clientSecret**
- final [JwtService](#) **jwtService**
- PasswordEncoder **passwordEncoder**
- [UserOAuthIdentityRepository](#) **userOAuthIdentityRepository**
- [UserRepository](#) **userRepository**
- [RedisTokenService](#) **redisTokenService**

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/OAuthService.java

3.80 area.server.AREA_Back.config.OpenApiConfig Class Reference

Public Member Functions

- OpenAPI **customOpenAPI** ()

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/config/OpenApiConfig.java

3.81 area.server.AREA_Back.service.ReactionChainService Class Reference

Public Member Functions

- void **processReactionChain** ([Area](#) area, Map< String, Object > initialPayload, UUID correlationId)
- void **triggerChainReaction** ([Execution](#) completedExecution, Map< String, Object > executionResult)

3.81.1 Detailed Description

[Service](#) for managing reaction chains and sequential execution

3.81.2 Member Function Documentation

3.81.2.1 processReactionChain()

```
void area.server.AREA_Back.service.ReactionChainService.processReactionChain (  
    Area area,  
    Map< String, Object > initialPayload,  
    UUID correlationId)
```

Processes a chain of reactions for an AREA

3.81.2.2 triggerChainReaction()

```
void area.server.AREA_Back.service.ReactionChainService.triggerChainReaction (  
    Execution completedExecution,  
    Map< String, Object > executionResult)
```

Triggers a chain reaction from a completed execution

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/ReactionChainService.java

3.82 area.server.AREA_Back.worker.ReactionExecutor Class Reference

Public Member Functions

- [ExecutionResult](#) **executeReaction** (final [Execution](#) execution)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/worker/ReactionExecutor.java

3.83 area.server.AREA_Back.config.RedisConfig Class Reference

Public Member Functions

- String **getAreasEventsStream** ()
- String **getAreasConsumerGroup** ()
- String **getAreasConsumerName** ()
- RedisTemplate< String, Object > **redisTemplate** (RedisConnectionFactory connectionFactory)
- RedisCacheManager **cacheManager** (RedisConnectionFactory connectionFactory)
- StreamMessageListenerContainer< String, ?> **streamMessageListenerContainer** (RedisConnectionFactory connectionFactory)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/config/RedisConfig.java

3.84 area.server.AREA_Back.service.RedisEventService Class Reference

Public Member Functions

- String **publishAreaEvent** ([AreaEventMessage](#) message)
- String **publishExecutionEvent** (UUID executionId, UUID actionInstanceId, UUID areald, Map< String, Object > payload)
- void **initializeStream** ()
- Map< String, Object > **getStreamInfo** ()

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/RedisEventService.java

3.85 `area.server.AREA_Back.config.RedisStreamProperties` Class Reference

Public Member Functions

- String **getConsumerName** ()

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/config/RedisStreamProperties.java`

3.86 `area.server.AREA_Back.service.RedisTokenService` Class Reference

Public Member Functions

- void **storeAccessToken** (String accessToken, UUID userId)
- void **storeRefreshToken** (UUID userId, String refreshToken)
- boolean **isAccessTokenValid** (String accessToken)
- UUID **getUserIdFromAccessToken** (String accessToken)
- String **getRefreshToken** (UUID userId)
- boolean **isRefreshTokenValid** (UUID userId, String refreshToken)
- void **deleteAccessToken** (String accessToken)
- void **deleteRefreshToken** (UUID userId)
- void **deleteAllTokensForUser** (UUID userId, String accessToken)
- void **rotateRefreshToken** (UUID userId, String newRefreshToken)
- void **cleanupExpiredTokens** ()
- Long **getAccessTokenTTL** (String accessToken)
- Long **getRefreshTokenTTL** (UUID userId)
- boolean **hasActiveRefreshToken** (UUID userId)
- void **extendAccessTokenTTL** (String accessToken, Duration newTTL)

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/RedisTokenService.java`

3.87 `area.server.AREA_Back.dto.RegisterRequest` Class Reference

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/RegisterRequest.java`

3.88 `area.server.AREA_Back.worker.RetryManager` Class Reference

Classes

- class **RetryStatistics**

Public Member Functions

- LocalDateTime **calculateNextRetryTime** (final int attemptNumber)
- boolean **shouldRetry** (final int attemptNumber, final Throwable error)
- RetryStatistics **getRetryStatistics** (final int attemptNumber)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/worker/RetryManager.java

3.89 area.server.AREA_Back.config.SecurityConfig Class Reference

Public Member Functions

- PasswordEncoder **passwordEncoder** ()
- CorsConfigurationSource **corsConfigurationSource** ()
- SecurityFilterChain **filterChain** (HttpSecurity http) throws Exception

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/config/SecurityConfig.java

3.90 area.server.AREA_Back.entity.Service Class Reference

Classes

- enum [AuthType](#)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/Service.java

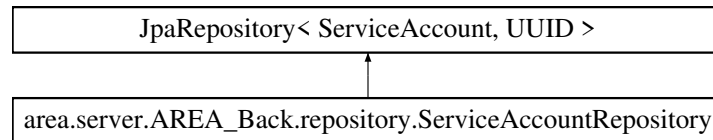
3.91 area.server.AREA_Back.entity.ServiceAccount Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/ServiceAccount.java

3.92 area.server.AREA_Back.repository.ServiceAccountRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.ServiceAccountRepository:



Public Member Functions

- Optional< [ServiceAccount](#) > [findByUserAndService](#) ([User](#) user, [Service](#) service)
- List< [ServiceAccount](#) > [findByUser](#) ([User](#) user)
- List< [ServiceAccount](#) > [findByService](#) ([Service](#) service)
- List< [ServiceAccount](#) > [findActiveAccounts](#) ()
- List< [ServiceAccount](#) > [findAccountsNeedingRefresh](#) ()
- List< [ServiceAccount](#) > [findActiveByUser](#) (@Param("user") [User](#) user)

3.92.1 Member Function Documentation

3.92.1.1 findAccountsNeedingRefresh()

```
List< ServiceAccount > area.server.AREA_Back.repository.ServiceAccountRepository.findAccountsNeedingRefresh ()
```

Find service accounts that need token refresh

3.92.1.2 findActiveAccounts()

```
List< ServiceAccount > area.server.AREA_Back.repository.ServiceAccountRepository.findActiveAccounts ()
```

Find active service accounts (not revoked)

3.92.1.3 findActiveByUser()

```
List< ServiceAccount > area.server.AREA_Back.repository.ServiceAccountRepository.findActiveByUser (
    @Param("user") User user)
```

Find service accounts by user and active status

3.92.1.4 findByService()

```
List< ServiceAccount > area.server.AREA_Back.repository.ServiceAccountRepository.findByService (
    Service service)
```

Find service accounts by service

3.92.1.5 findByUser()

```
List< ServiceAccount > area.server.AREA_Back.repository.ServiceAccountRepository.findByUser (
    User user)
```

Find service accounts by user

3.92.1.6 findByUserAndService()

```
Optional< ServiceAccount > area.server.AREA_Back.repository.ServiceAccountRepository.findBy↵
UserAndService (
    User user,
    Service service)
```

Find service account by user and service

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/ServiceAccountRepository.java

3.93 area.server.AREA_Back.dto.ServiceAccountResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ServiceAccountResponse.java

3.94 area.server.AREA_Back.service.ServiceAccountService Class Reference

Public Member Functions

- [ServiceAccount createOrUpdateServiceAccount](#) (UUID userId, String serviceKey, String accessToken, String refreshToken, LocalDateTime expiresAt, Map< String, Object > scopes)
- Optional< [ServiceAccount](#) > [getServiceAccount](#) (UUID userId, String serviceKey)
- Optional< String > [getAccessToken](#) (UUID userId, String serviceKey)
- List< [ServiceAccount](#) > [getUserServiceAccounts](#) (UUID userId)
- void [revokeServiceAccount](#) (UUID userId, String serviceKey)
- boolean [hasValidToken](#) (UUID userId, String serviceKey)
- void [storeTokenMetadata](#) (UUID userId, String serviceKey, String remoteAccountId, String webhookSecret, Map< String, Object > additionalScopes)

3.94.1 Member Function Documentation

3.94.1.1 createOrUpdateServiceAccount()

```
ServiceAccount area.server.AREA_Back.service.ServiceAccountService.createOrUpdateServiceAccount (
    UUID userId,
    String serviceKey,
    String accessToken,
    String refreshToken,
    LocalDateTime expiresAt,
    Map< String, Object > scopes)
```

Create or update a service account with token

3.94.1.2 getAccessToken()

```
Optional< String > area.server.AREA_Back.service.ServiceAccountService.getAccessToken (
    UUID userId,
    String serviceKey)
```

Get decrypted access token for a service

3.94.1.3 getServiceAccount()

```
Optional< ServiceAccount > area.server.AREA_Back.service.ServiceAccountService.getServiceAccount (
    UUID userId,
    String serviceKey)
```

Get service account by user and service key

3.94.1.4 getUserServiceAccounts()

```
List< ServiceAccount > area.server.AREA_Back.service.ServiceAccountService.getUserServiceAccounts (
    UUID userId)
```

Get all service accounts for a user

3.94.1.5 hasValidToken()

```
boolean area.server.AREA_Back.service.ServiceAccountService.hasValidToken (
    UUID userId,
    String serviceKey)
```

Check if user has access token for a service

3.94.1.6 revokeServiceAccount()

```
void area.server.AREA_Back.service.ServiceAccountService.revokeServiceAccount (
    UUID userId,
    String serviceKey)
```

Revoke (disable) a service account

3.94.1.7 storeTokenMetadata()

```
void area.server.AREA_Back.service.ServiceAccountService.storeTokenMetadata (
    UUID userId,
    String serviceKey,
    String remoteAccountId,
    String webhookSecret,
    Map< String, Object > additionalScopes)
```

Store additional service-specific token metadata

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/ServiceAccountService.java`

3.95 area.server.AREA_Back.service.ServiceCacheService Class Reference

Public Member Functions

- List< [ServiceResponse](#) > [getAllServicesCached](#) ()
- List< [ServiceResponse](#) > [getEnabledServicesCached](#) ()
- void [invalidateServicesCache](#) ()
- List< [ServiceResponse](#) > [getAllServicesUncached](#) ()
- boolean [isCacheAvailable](#) ()

3.95.1 Detailed Description

[Service](#) for managing cached service data. Provides caching functionality with fallback to database when Redis is unavailable.

3.95.2 Member Function Documentation

3.95.2.1 getAllServicesCached()

```
List< ServiceResponse > area.server.AREA_Back.service.ServiceCacheService.getAllServicesCached
()
```

Gets all services from cache or database as fallback. Cache key: 'all-services' TTL: 1 hour (configured in [RedisConfig](#))

Returns

List of all services

3.95.2.2 getAllServicesUncached()

```
List< ServiceResponse > area.server.AREA_Back.service.ServiceCacheService.getAllServices←  
Uncached ()
```

Gets all services without caching (direct database access). Used for admin operations or when cache should be bypassed.

Returns

List of all services from database

3.95.2.3 getEnabledServicesCached()

```
List< ServiceResponse > area.server.AREA_Back.service.ServiceCacheService.getEnabledServices←  
Cached ()
```

Gets enabled services from cache or database as fallback. Cache key: 'enabled-services' TTL: 1 hour (configured in [RedisConfig](#))

Returns

List of enabled services

3.95.2.4 invalidateServicesCache()

```
void area.server.AREA_Back.service.ServiceCacheService.invalidateServicesCache ()
```

Invalidates all service cache entries. Called when services are created, updated, or deleted.

3.95.2.5 isCacheAvailable()

```
boolean area.server.AREA_Back.service.ServiceCacheService.isCacheAvailable ()
```

Checks if Redis cache is available.

Returns

true if Redis is available, false otherwise

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/service/ServiceCacheService.java`

3.96 area.server.AREA_Back.dto.ServiceConnectionStatus Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ServiceConnectionStatus.java

3.97 area.server.AREA_Back.controller.ServiceController Class Reference

Public Member Functions

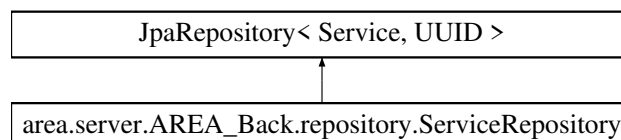
- ResponseEntity< Page< [ServiceResponse](#) > > **getAllServices** (@Parameter(description="Page number (starts at 0)") @RequestParam(defaultValue="0") int page, @Parameter(description="Page size") @RequestParam(defaultValue="20") int size, @Parameter(description="Sort field") @RequestParam(defaultValue="id") String sortBy, @Parameter(description="Sort direction (asc or desc)") @RequestParam(defaultValue="asc") String sortDir)
- ResponseEntity< [ServiceResponse](#) > **getServiceById** (@PathVariable UUID id)
- ResponseEntity< List< [ServiceResponse](#) > > **getEnabledServices** ()
- ResponseEntity< List< [ServiceResponse](#) > > **getServicesCatalog** ()
- ResponseEntity< List< [ServiceResponse](#) > > **getEnabledServicesCatalog** ()
- ResponseEntity< [ServiceResponse](#) > **createService** (@Valid @RequestBody [CreateServiceRequest](#) request)
- ResponseEntity< [ServiceResponse](#) > **updateService** (@PathVariable UUID id, @Valid @RequestBody [CreateServiceRequest](#) request)
- ResponseEntity< Void > **deleteService** (@PathVariable UUID id)
- ResponseEntity< List< [ServiceResponse](#) > > **searchServices** (@RequestParam String name)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/ServiceController.java

3.98 area.server.AREA_Back.repository.ServiceRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.ServiceRepository:



Public Member Functions

- Optional< [Service](#) > [findByKey](#) (String key)
- Optional< [Service](#) > [findByName](#) (String name)
- boolean [existsByKey](#) (String key)
- List< [Service](#) > [findAllEnabledServices](#) ()
- List< [Service](#) > [findByAuth](#) (Service.AuthType auth)
- List< [Service](#) > [findByNameContainingIgnoreCase](#) (String name)

3.98.1 Member Function Documentation

3.98.1.1 existsByKey()

```
boolean area.server.AREA_Back.repository.ServiceRepository.existsByKey (  
    String key)
```

Check if service exists by key

3.98.1.2 findAllEnabledServices()

```
List< Service > area.server.AREA_Back.repository.ServiceRepository.findAllEnabledServices ()
```

Find all enabled services

3.98.1.3 findByAuth()

```
List< Service > area.server.AREA_Back.repository.ServiceRepository.findByAuth (  
    Service.AuthType auth)
```

Find services by authentication type

3.98.1.4 findByKey()

```
Optional< Service > area.server.AREA_Back.repository.ServiceRepository.findByKey (  
    String key)
```

Find service by key

3.98.1.5 findByName()

```
Optional< Service > area.server.AREA_Back.repository.ServiceRepository.findByName (  
    String name)
```

Find service by name

3.98.1.6 findByNameContainingIgnoreCase()

```
List< Service > area.server.AREA_Back.repository.ServiceRepository.findByNameContainingIgnoreCase (
    String name)
```

Find services by name containing (case-insensitive search)

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/ServiceRepository.java

3.99 area.server.AREA_Back.dto.ServiceResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ServiceResponse.java

3.100 area.server.AREA_Back.controller.ServiceTokenController Class Reference

Public Member Functions

- ResponseEntity< ServiceTokenStatusResponse > **hasValidToken** (@PathVariable String serviceName, HttpServletRequest httpRequest)
- ResponseEntity< ServiceTokenResponse > **storeToken** (@PathVariable String serviceName, @RequestBody StoreTokenRequest tokenData, HttpServletRequest httpRequest)
- ResponseEntity< ServiceTokenResponse > **getToken** (@PathVariable String serviceName, HttpServletRequest httpRequest)
- ResponseEntity< Void > **deleteToken** (@PathVariable String serviceName, HttpServletRequest httpRequest)
- ResponseEntity< List< ServiceTokenResponse > > **getAllTokens** (HttpServletRequest httpRequest)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/ServiceTokenController.java

3.101 area.server.AREA_Back.dto.ServiceTokenRequest Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/ServiceTokenRequest.java

3.102 **area.server.AREA_Back.dto.ServiceTokenResponse Class Reference**

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/ServiceTokenResponse.java`

3.103 **area.server.AREA_Back.dto.ServiceTokenStatusResponse Class Reference**

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/ServiceTokenStatusResponse.java`

3.104 **area.server.AREA_Back.dto.StoreTokenRequest Class Reference**

The documentation for this class was generated from the following file:

- `src/main/java/area/server/AREA_Back/dto/StoreTokenRequest.java`

3.105 **area.server.AREA_Back.TestAreaBackApplication Class Reference**

Static Public Member Functions

- static void **main** (String[] args)

The documentation for this class was generated from the following file:

- `src/test/java/area/server/AREA_Back/TestAreaBackApplication.java`

3.106 **area.server.AREA_Back.config.TestCacheConfig Class Reference**

Public Member Functions

- CacheManager **cacheManager** ()

The documentation for this class was generated from the following file:

- `src/test/java/area/server/AREA_Back/config/TestCacheConfig.java`

3.107 area.server.AREA_Back.TestcontainersConfiguration Class Reference

The documentation for this class was generated from the following file:

- src/test/java/area/server/AREA_Back/TestcontainersConfiguration.java

3.108 area.server.AREA_Back.controller.TestController Class Reference

Public Member Functions

- ResponseEntity< Map< String, String > > **health** ()
- ResponseEntity< Map< String, String > > **swaggerTest** ()

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/TestController.java

3.109 area.server.AREA_Back.config.TestRedisConfig Class Reference

Public Member Functions

- [RedisStreamProperties](#) **testRedisStreamProperties** ()

The documentation for this class was generated from the following file:

- src/test/java/area/server/AREA_Back/config/TestRedisConfig.java

3.110 area.server.AREA_Back.config.TestSecurityConfig Class Reference

Public Member Functions

- SecurityFilterChain **testSecurityFilterChain** (HttpSecurity http) throws Exception

The documentation for this class was generated from the following file:

- src/test/java/area/server/AREA_Back/config/TestSecurityConfig.java

3.111 area.server.AREA_Back.service.TokenEncryptionService Class Reference

Public Member Functions

- **TokenEncryptionService** (@Value("\${APP_ENCRYPTION_KEY:}") String base64Key)
- String [encryptToken](#) (String plainToken)
- String [decryptToken](#) (String encryptedToken)
- String [getKeyAsBase64](#) ()

Static Public Member Functions

- static String [generateNewKeyAsBase64](#) ()

3.111.1 Detailed Description

[Service](#) for encrypting and decrypting OAuth tokens using AES-256-GCM

3.111.2 Member Function Documentation

3.111.2.1 decryptToken()

```
String area.server.AREA_Back.service.TokenEncryptionService.decryptToken (  
    String encryptedToken)
```

Decrypt a token using AES-256-GCM

Parameters

<i>encryptedToken</i>	Base64 encoded encrypted token with IV prepended
-----------------------	--

Returns

decrypted plain token

3.111.2.2 encryptToken()

```
String area.server.AREA_Back.service.TokenEncryptionService.encryptToken (  
    String plainToken)
```

Encrypt a token using AES-256-GCM

Parameters

<i>plainToken</i>	the token to encrypt
-------------------	----------------------

Returns

Base64 encoded encrypted token with IV prepended

3.111.2.3 generateNewKeyAsBase64()

```
static String area.server.AREA_Back.service.TokenEncryptionService.generateNewKeyAsBase64 ()  
[static]
```

Generate a new AES-256 key and return it as Base64 string Useful for generating keys for configuration

3.111.2.4 getKeyAsBase64()

```
String area.server.AREA_Back.service.TokenEncryptionService.getKeyAsBase64 ()
```

Get the current key as Base64 string (for configuration)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/TokenEncryptionService.java

3.112 area.server.AREA_Back.dto.TokenRefreshRequest Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/TokenRefreshRequest.java

3.113 area.server.AREA_Back.config.UnitTestConfig Class Reference

Public Member Functions

- [JwtCookieProperties](#) `jwtCookieProperties ()`

The documentation for this class was generated from the following file:

- src/test/java/area/server/AREA_Back/config/UnitTestConfig.java

3.114 area.server.AREA_Back.dto.UpdateUserRequest Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/UpdateUserRequest.java

3.115 area.server.AREA_Back.entity.User Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/User.java

3.116 area.server.AREA_Back.controller.UserController Class Reference

Public Member Functions

- `ResponseEntity< Page< UserResponse > > getAllUsers (@Parameter(description="Page number (starts at 0)") @RequestParam(defaultValue="0") int page, @Parameter(description="Page size") @RequestParam(defaultValue="20") int size, @Parameter(description="Sort field") @RequestParam(defaultValue="id") String sortBy, @Parameter(description="Sort direction (asc or desc)") @RequestParam(defaultValue="asc") String sortDir)`
- `ResponseEntity< UserResponse > getUserById (@Parameter(description="User ID") @PathVariable UUID id)`
- `ResponseEntity< List< UserResponse > > getEnabledUsers ()`
- `ResponseEntity< UserResponse > updateUser (@Parameter(description="User ID") @PathVariable UUID id, @Valid @RequestBody UpdateUserRequest request)`
- `ResponseEntity< Void > deleteUser (@Parameter(description="User ID") @PathVariable UUID id)`
- `ResponseEntity< List< UserResponse > > searchUsers (@Parameter(description="Email to search for") @RequestParam String email)`

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/UserController.java

3.117 area.server.AREA_Back.service.UserIdentityService.UserCreationType Enum Reference

Public Attributes

- **LOCAL**
- **OAuth**
- **BOTH**
- **UNKNOWN**

The documentation for this enum was generated from the following file:

- src/main/java/area/server/AREA_Back/service/UserIdentityService.java

3.118 area.server.AREA_Back.service.UserIdentityService Class Reference

Classes

- enum [UserCreationType](#)

Public Member Functions

- boolean [hasLocalIdentity](#) (UUID *userId*)
- boolean [hasOAuthIdentity](#) (UUID *userId*, String *provider*)
- List< [UserOAuthIdentity](#) > [getUserOAuthIdentities](#) (UUID *userId*)
- Optional< [UserOAuthIdentity](#) > [getOAuthIdentity](#) (UUID *userId*, String *provider*)
- boolean [needsServiceConnection](#) (UUID *userId*, String *provider*)
- [UserCreationType](#) [getUserCreationType](#) (UUID *userId*)
- Optional< String > [getPrimaryOAuthProvider](#) (UUID *userId*)

3.118.1 Member Function Documentation

3.118.1.1 [getOAuthIdentity\(\)](#)

```
Optional< UserOAuthIdentity > area.server.AREA_Back.service.UserIdentityService.getOAuthIdentity (
    UUID userId,
    String provider)
```

Get OAuth identity for a specific provider

3.118.1.2 [getPrimaryOAuthProvider\(\)](#)

```
Optional< String > area.server.AREA_Back.service.UserIdentityService.getPrimaryOAuthProvider (
    UUID userId)
```

Get the primary OAuth provider for a user (first one created)

3.118.1.3 [getUserCreationType\(\)](#)

```
UserCreationType area.server.AREA_Back.service.UserIdentityService.getUserCreationType (
    UUID userId)
```

Get user creation method (LOCAL, OAUTH, or BOTH)

3.118.1.4 [getUserOAuthIdentities\(\)](#)

```
List< UserOAuthIdentity > area.server.AREA_Back.service.UserIdentityService.getUserOAuthIdentities (
    UUID userId)
```

Get all OAuth identities for a user

3.118.1.5 [hasLocalIdentity\(\)](#)

```
boolean area.server.AREA_Back.service.UserIdentityService.hasLocalIdentity (
    UUID userId)
```

Check if user has local identity (email/password)

3.118.1.6 hasOAuthIdentity()

```
boolean area.server.AREA_Back.service.UserIdentityService.hasOAuthIdentity (
    UUID userId,
    String provider)
```

Check if user has OAuth identity for a specific provider

3.118.1.7 needsServiceConnection()

```
boolean area.server.AREA_Back.service.UserIdentityService.needsServiceConnection (
    UUID userId,
    String provider)
```

Check if user needs to connect to a service for the first time Returns true if user doesn't have OAuth identity for the provider

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/UserIdentityService.java

3.119 area.server.AREA_Back.entity.UserLocalIdentity Class Reference

Public Member Functions

- boolean [isAccountLocked](#) ()
- boolean [isEmailVerificationTokenValid](#) ()
- boolean [isPasswordResetTokenValid](#) ()

3.119.1 Member Function Documentation

3.119.1.1 isAccountLocked()

```
boolean area.server.AREA_Back.entity.UserLocalIdentity.isAccountLocked ()
```

Check if the account is currently locked due to failed login attempts

3.119.1.2 isEmailVerificationTokenValid()

```
boolean area.server.AREA_Back.entity.UserLocalIdentity.isEmailVerificationTokenValid ()
```

Check if email verification token is valid (not expired)

3.119.1.3 isPasswordResetTokenValid()

```
boolean area.server.AREA_Back.entity.UserLocalIdentity.isPasswordResetTokenValid ()
```

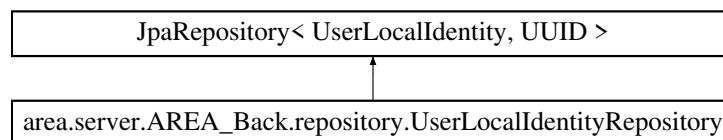
Check if password reset token is valid (not expired)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/UserLocalIdentity.java

3.120 area.server.AREA_Back.repository.UserLocalIdentityRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.UserLocalIdentityRepository:



Public Member Functions

- Optional< [UserLocalIdentity](#) > [findByEmail](#) (String email)
- Optional< [UserLocalIdentity](#) > [findByUser](#) ([User](#) user)
- Optional< [UserLocalIdentity](#) > [findByUserId](#) (UUID userId)
- boolean [existsByEmail](#) (String email)
- Optional< [UserLocalIdentity](#) > [findByEmailVerificationToken](#) (String token)
- Optional< [UserLocalIdentity](#) > [findByPasswordResetToken](#) (String token)
- void [incrementFailedLoginAttempts](#) (@Param("email") String email)
- void [resetFailedLoginAttempts](#) (@Param("email") String email)
- void [lockAccount](#) (@Param("email") String email, @Param("lockUntil") LocalDateTime lockUntil)
- void [clearEmailVerificationToken](#) (@Param("token") String token)
- void [clearPasswordResetToken](#) (@Param("token") String token)

3.120.1 Member Function Documentation

3.120.1.1 clearEmailVerificationToken()

```
void area.server.AREA_Back.repository.UserLocalIdentityRepository.clearEmailVerificationToken
(
    @Param("token") String token)

```

Clear email verification token

3.120.1.2 clearPasswordResetToken()

```
void area.server.AREA_Back.repository.UserLocalIdentityRepository.clearPasswordResetToken (
    @Param("token") String token)
```

Clear password reset token

3.120.1.3 existsByEmail()

```
boolean area.server.AREA_Back.repository.UserLocalIdentityRepository.existsByEmail (
    String email)
```

Check if email exists

3.120.1.4 findByEmail()

```
Optional< UserLocalIdentity > area.server.AREA_Back.repository.UserLocalIdentityRepository.↵
findByEmail (
    String email)
```

Find user local identity by email

3.120.1.5 findByEmailVerificationToken()

```
Optional< UserLocalIdentity > area.server.AREA_Back.repository.UserLocalIdentityRepository.↵
findByEmailVerificationToken (
    String token)
```

Find by email verification token

3.120.1.6 findByPasswordResetToken()

```
Optional< UserLocalIdentity > area.server.AREA_Back.repository.UserLocalIdentityRepository.↵
findByPasswordResetToken (
    String token)
```

Find by password reset token

3.120.1.7 findByUser()

```
Optional< UserLocalIdentity > area.server.AREA_Back.repository.UserLocalIdentityRepository.↵
findByUser (
    User user)
```

Find user local identity by user

3.120.1.8 findByUserId()

```
Optional< UserLocalIdentity > area.server.AREA_Back.repository.UserLocalIdentityRepository.↵  
findByUserId (  
    UUID userId)
```

Find user local identity by user ID

3.120.1.9 incrementFailedLoginAttempts()

```
void area.server.AREA_Back.repository.UserLocalIdentityRepository.incrementFailedLoginAttempts  
(  
    @Param("email") String email)
```

Increment failed login attempts

3.120.1.10 lockAccount()

```
void area.server.AREA_Back.repository.UserLocalIdentityRepository.lockAccount (  
    @Param("email") String email,  
    @Param("lockUntil") LocalDateTime lockUntil)
```

Lock account until specified time

3.120.1.11 resetFailedLoginAttempts()

```
void area.server.AREA_Back.repository.UserLocalIdentityRepository.resetFailedLoginAttempts (  
    @Param("email") String email)
```

Reset failed login attempts

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/UserLocalIdentityRepository.java

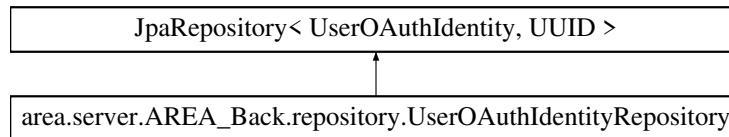
3.121 area.server.AREA_Back.entity.UserOAuthIdentity Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/entity/UserOAuthIdentity.java

3.122 area.server.AREA_Back.repository.UserOAuthIdentityRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.UserOAuthIdentityRepository:



Public Member Functions

- Optional< [UserOAuthIdentity](#) > [findByUserAndProvider](#) ([User](#) user, String provider)
- Optional< [UserOAuthIdentity](#) > [findByUserIdAndProvider](#) (UUID userId, String provider)
- Optional< [UserOAuthIdentity](#) > [findByProviderAndProviderUserId](#) (String provider, String providerUserId)
- List< [UserOAuthIdentity](#) > [findByUser](#) ([User](#) user)
- List< [UserOAuthIdentity](#) > [findByUserId](#) (UUID userId)
- List< [UserOAuthIdentity](#) > [findByProvider](#) (String provider)
- boolean [existsByUserAndProvider](#) ([User](#) user, String provider)
- boolean [existsByUserIdAndProvider](#) (UUID userId, String provider)
- boolean [existsByProviderAndProviderUserId](#) (String provider, String providerUserId)
- void [updateAccessToken](#) (@Param("userId") UUID userId, @Param("provider") String provider, @Param("accessToken") String accessToken, @Param("updatedAt") LocalDateTime updatedAt)
- void [updateRefreshToken](#) (@Param("userId") UUID userId, @Param("provider") String provider, @Param("refreshToken") String refreshToken, @Param("updatedAt") LocalDateTime updatedAt)
- void [updateTokens](#) (@Param("userId") UUID userId, @Param("provider") String provider, @Param("accessToken") String accessToken, @Param("refreshToken") String refreshToken, @Param("expiresAt") LocalDateTime expiresAt, @Param("updatedAt") LocalDateTime updatedAt)
- void [updateTokenExpiration](#) (@Param("userId") UUID userId, @Param("provider") String provider, @Param("expiresAt") LocalDateTime expiresAt, @Param("updatedAt") LocalDateTime updatedAt)
- void [updateScopes](#) (@Param("userId") UUID userId, @Param("provider") String provider, @Param("scopes") Map< String, Object > scopes, @Param("updatedAt") LocalDateTime updatedAt)
- void [deleteByUserIdAndProvider](#) (@Param("userId") UUID userId, @Param("provider") String provider)
- List< [UserOAuthIdentity](#) > [findExpiredTokensWithRefreshToken](#) (@Param("now") LocalDateTime now)
- long [countByUserId](#) (@Param("userId") UUID userId)

3.122.1 Member Function Documentation

3.122.1.1 countByUserId()

```
long area.server.AREA_Back.repository.UserOAuthIdentityRepository.countByUserId (
    @Param("userId") UUID userId)
```

Count OAuth identities for a user

3.122.1.2 deleteByUserIdAndProvider()

```
void area.server.AREA_Back.repository.UserOAuthIdentityRepository.deleteByUserIdAndProvider (
    @Param("userId") UUID userId,
    @Param("provider") String provider)
```

Delete OAuth identity by user and provider

3.122.1.3 existsByProviderAndProviderUserId()

```
boolean area.server.AREA_Back.repository.UserOAuthIdentityRepository.existsByProviderAndProviderUserId (
    String provider,
    String providerUserId)
```

Check if provider user ID exists for a provider

3.122.1.4 existsByUserAndProvider()

```
boolean area.server.AREA_Back.repository.UserOAuthIdentityRepository.existsByUserAndProvider (
    User user,
    String provider)
```

Check if OAuth identity exists for user and provider

3.122.1.5 existsByUserIdAndProvider()

```
boolean area.server.AREA_Back.repository.UserOAuthIdentityRepository.existsByUserIdAndProvider (
    UUID userId,
    String provider)
```

Check if OAuth identity exists for user ID and provider

3.122.1.6 findByProvider()

```
List< UserOAuthIdentity > area.server.AREA_Back.repository.UserOAuthIdentityRepository.findByProvider (
    String provider)
```

Find all OAuth identities for a specific provider

3.122.1.7 findByProviderAndProviderUserId()

```
Optional< UserOAuthIdentity > area.server.AREA_Back.repository.UserOAuthIdentityRepository.findByProviderAndProviderUserId (
    String provider,
    String providerUserId)
```

Find OAuth identity by provider and provider user ID

3.122.1.8 findByUser()

```
List< UserOAuthIdentity > area.server.AREA_Back.repository.UserOAuthIdentityRepository.findByUser (
    User user)
```

Find all OAuth identities for a user

3.122.1.9 findByUserAndProvider()

```
Optional< UserOAuthIdentity > area.server.AREA_Back.repository.UserOAuthIdentityRepository.↵
findByUserAndProvider (
    User user,
    String provider)
```

Find OAuth identity by user and provider

3.122.1.10 findByUserId()

```
List< UserOAuthIdentity > area.server.AREA_Back.repository.UserOAuthIdentityRepository.find↵
ByUserId (
    UUID userId)
```

Find all OAuth identities for a user ID

3.122.1.11 findByUserIdAndProvider()

```
Optional< UserOAuthIdentity > area.server.AREA_Back.repository.UserOAuthIdentityRepository.↵
findByUserIdAndProvider (
    UUID userId,
    String provider)
```

Find OAuth identity by user ID and provider

3.122.1.12 findExpiredTokensWithRefreshToken()

```
List< UserOAuthIdentity > area.server.AREA_Back.repository.UserOAuthIdentityRepository.find↵
ExpiredTokensWithRefreshToken (
    @Param("now") LocalDateTime now)
```

Find OAuth identities with expired tokens

3.122.1.13 updateAccessToken()

```
void area.server.AREA_Back.repository.UserOAuthIdentityRepository.updateAccessToken (
    @Param("userId") UUID userId,
    @Param("provider") String provider,
    @Param("accessToken") String accessToken,
    @Param("updatedAt") LocalDateTime updatedAt)
```

Update access token for OAuth identity

3.122.1.14 updateRefreshToken()

```
void area.server.AREA_Back.repository.UserOAuthIdentityRepository.updateRefreshToken (
    @Param("userId") UUID userId,
    @Param("provider") String provider,
    @Param("refreshToken") String refreshToken,
    @Param("updatedAt") LocalDateTime updatedAt)
```

Update refresh token for OAuth identity

3.122.1.15 updateScopes()

```
void area.server.AREA_Back.repository.UserOAuthIdentityRepository.updateScopes (
    @Param("userId") UUID userId,
    @Param("provider") String provider,
    @Param("scopes") Map< String, Object > scopes,
    @Param("updatedAt") LocalDateTime updatedAt)
```

Update scopes for OAuth identity

3.122.1.16 updateTokenExpiration()

```
void area.server.AREA_Back.repository.UserOAuthIdentityRepository.updateTokenExpiration (
    @Param("userId") UUID userId,
    @Param("provider") String provider,
    @Param("expiresAt") LocalDateTime expiresAt,
    @Param("updatedAt") LocalDateTime updatedAt)
```

Update token expiration

3.122.1.17 updateTokens()

```
void area.server.AREA_Back.repository.UserOAuthIdentityRepository.updateTokens (
    @Param("userId") UUID userId,
    @Param("provider") String provider,
    @Param("accessToken") String accessToken,
    @Param("refreshToken") String refreshToken,
    @Param("expiresAt") LocalDateTime expiresAt,
    @Param("updatedAt") LocalDateTime updatedAt)
```

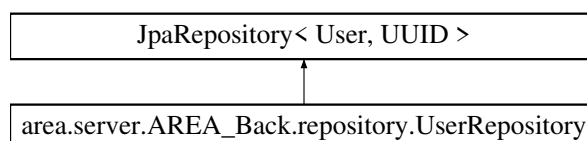
Update both access and refresh tokens

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/UserOAuthIdentityRepository.java

3.123 area.server.AREA_Back.repository.UserRepository Interface Reference

Inheritance diagram for area.server.AREA_Back.repository.UserRepository:



Public Member Functions

- Optional< [User](#) > [findByEmail](#) (String email)
- boolean [existsByEmail](#) (String email)
- java.util.List< [User](#) > [findAllEnabledUsers](#) ()

3.123.1 Member Function Documentation

3.123.1.1 existsByEmail()

```
boolean area.server.AREA_Back.repository.UserRepository.existsByEmail (
    String email)
```

Check if user exists by email

3.123.1.2 findAllEnabledUsers()

```
java.util.List< User > area.server.AREA_Back.repository.UserRepository.findAllEnabledUsers ()
```

Find enabled users

3.123.1.3 findByEmail()

```
Optional< User > area.server.AREA_Back.repository.UserRepository.findByEmail (
    String email)
```

Find user by email

The documentation for this interface was generated from the following file:

- src/main/java/area/server/AREA_Back/repository/UserRepository.java

3.124 area.server.AREA_Back.dto.UserResponse Class Reference

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/dto/UserResponse.java

3.125 area.server.AREA_Back.controller.UserServiceConnection↵ Controller Class Reference

Public Member Functions

- ResponseEntity< [ServiceConnectionStatus](#) > [getServiceConnectionStatus](#) (@PathVariable String serviceKey, HttpServletRequest request)
- ResponseEntity< List< [ServiceConnectionStatus](#) > > [getConnectedServices](#) (HttpServletRequest request)

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/UserServiceConnectionController.java

3.126 area.server.AREA_Back.controller.WebhookController Class Reference

Public Member Functions

- `ResponseEntity< Map< String, Object > > handleWebhook (@Parameter(description="Service name (github, slack, etc.)") @PathVariable String service, @Parameter(description="Action type (issues, pull_request, message, etc.)") @PathVariable String action, @Parameter(description="Optional user ID to scope the webhook") @RequestParam(required=false) UUID userId, @RequestBody Map< String, Object > payload, HttpServletRequest request)`
- `ResponseEntity< Map< String, Object > > handleGitHubWebhook (@Parameter(description="User ID for which to process the webhook") @PathVariable UUID userId, @Parameter(description="GitHub event type (e.g., issues, pull_request, push)") @RequestHeader(value="X-GitHub-Event", required=false) String eventType, @Parameter(description="GitHub webhook signature for verification") @RequestHeader(value="X-Hub-Signature-256", required=false) String signature, @Parameter(description="GitHub webhook delivery ID") @RequestHeader(value="X-GitHub-Delivery", required=false) String deliveryId, @RequestBody Map< String, Object > payload)`
- `ResponseEntity< Map< String, Object > > testWebhook (@PathVariable String service, @RequestParam(required=false) UUID userId, @RequestBody(required=false) Map< String, Object > payload, HttpServletRequest request)`

3.126.1 Detailed Description

Controller for handling webhooks from external services

3.126.2 Member Function Documentation

3.126.2.1 handleGitHubWebhook()

```
ResponseEntity< Map< String, Object > > area.server.AREA_Back.controller.WebhookController.  
handleGitHubWebhook (
    @Parameter(description="User ID for which to process the webhook") @PathVariable
    UUID userId,
    @Parameter(description="GitHub event type (e.g., issues, pull_request, push)")
    @RequestHeader(value="X-GitHub-Event", required=false) String eventType,
    @Parameter(description="GitHub webhook signature for verification") @RequestHeader
    (value="X-Hub-Signature-256", required=false) String signature,
    @Parameter(description="GitHub webhook delivery ID") @RequestHeader(value="X-GitHub-Delivery", required=false) String deliveryId,
    @RequestBody Map< String, Object > payload)
```

GitHub-specific webhook endpoint (backward compatibility)

3.126.2.2 handleWebhook()

```
ResponseEntity< Map< String, Object > > area.server.AREA_Back.controller.WebhookController.  
handleWebhook (
    @Parameter(description="Service name (github, slack, etc.)") @PathVariable String
    service,
    @Parameter(description="Action type (issues, pull_request, message, etc.)") @PathVariable
    String action,
    @Parameter(description="Optional user ID to scope the webhook") @RequestParam(required=false)
    UUID userId,
    @RequestBody Map< String, Object > payload,
    HttpServletRequest request)
```

Generic webhook receiver endpoint POST /api/hooks/{service}/{action}

3.126.2.3 testWebhook()

```
ResponseEntity< Map< String, Object > > area.server.AREA_Back.controller.WebhookController.testWebhook (
    @PathVariable String service,
    @RequestParam(required=false) UUID userId,
    @RequestBody(required=false) Map< String, Object > payload,
    HttpServletRequest request)
```

Test endpoint for webhook validation

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/WebhookController.java

3.127 area.server.AREA_Back.service.WebhookDeduplicationService Class Reference

Public Member Functions

- boolean [isDuplicate](#) (String eventId, String provider)
- void [markAsProcessed](#) (String eventId, String provider)
- void [markAsProcessed](#) (String eventId, String provider, Duration customTtl)
- boolean [checkAndMark](#) (String eventId, String provider)
- boolean [checkAndMark](#) (String eventId, String provider, Duration customTtl)
- void [removeEvent](#) (String eventId, String provider)
- long [getRemainingTtl](#) (String eventId, String provider)
- void [clearProviderEvents](#) (String provider)

3.127.1 Detailed Description

[Service](#) for webhook event deduplication using Redis

3.127.2 Member Function Documentation

3.127.2.1 checkAndMark() [1/2]

```
boolean area.server.AREA_Back.service.WebhookDeduplicationService.checkAndMark (
    String eventId,
    String provider)
```

Checks if an event is a duplicate and marks it as processed if it's new This is an atomic operation to prevent race conditions

Parameters

<i>eventId</i>	Unique event identifier
<i>provider</i>	The webhook provider

Returns

true if event was already processed, false if it's new (and now marked as processed)

3.127.2.2 checkAndMark() [2/2]

```
boolean area.server.AREA_Back.service.WebhookDeduplicationService.checkAndMark (  
    String eventId,  
    String provider,  
    Duration customTtl)
```

Checks if an event is a duplicate and marks it as processed if it's new This is an atomic operation to prevent race conditions

Parameters

<i>eventId</i>	Unique event identifier
<i>provider</i>	The webhook provider
<i>customTtl</i>	Custom TTL duration, null to use provider default

Returns

true if event was already processed, false if it's new (and now marked as processed)

3.127.2.3 clearProviderEvents()

```
void area.server.AREA_Back.service.WebhookDeduplicationService.clearProviderEvents (  
    String provider)
```

Clears all deduplication entries for a specific provider Useful for maintenance or testing

Parameters

<i>provider</i>	The webhook provider
-----------------	----------------------

3.127.2.4 getRemainingTtl()

```
long area.server.AREA_Back.service.WebhookDeduplicationService.getRemainingTtl (  
    String eventId,  
    String provider)
```

Gets the remaining TTL for an event

Parameters

<i>eventId</i>	Unique event identifier
<i>provider</i>	The webhook provider

Returns

remaining TTL in seconds, -1 if key doesn't exist, -2 if key exists but has no TTL

3.127.2.5 isDuplicate()

```
boolean area.server.AREA_Back.service.WebhookDeduplicationService.isDuplicate (  
    String eventId,  
    String provider)
```

Checks if an event has already been processed (is a duplicate)

Parameters

<i>eventId</i>	Unique event identifier
<i>provider</i>	The webhook provider (github, slack, etc.)

Returns

true if event is a duplicate, false if it's new

3.127.2.6 markAsProcessed() [1/2]

```
void area.server.AREA_Back.service.WebhookDeduplicationService.markAsProcessed (  
    String eventId,  
    String provider)
```

Marks an event as processed

Parameters

<i>eventId</i>	Unique event identifier
<i>provider</i>	The webhook provider

3.127.2.7 markAsProcessed() [2/2]

```
void area.server.AREA_Back.service.WebhookDeduplicationService.markAsProcessed (  
    String eventId,  
    String provider,  
    Duration customTtl)
```

Marks an event as processed with custom TTL

Parameters

<i>eventId</i>	Unique event identifier
<i>provider</i>	The webhook provider
<i>customTtl</i>	Custom TTL duration, null to use provider default

3.127.2.8 removeEvent()

```
void area.server.AREA_Back.service.WebhookDeduplicationService.removeEvent (  
    String eventId,  
    String provider)
```

Removes an event from the deduplication cache Useful for testing or manual cleanup

Parameters

<i>eventId</i>	Unique event identifier
<i>provider</i>	The webhook provider

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/WebhookDeduplicationService.java

3.128 area.server.AREA_Back.service.WebhookEventProcessingService Class Reference

Public Member Functions

- List< [Execution](#) > [processWebhookEvent](#) (String service, String action, Map< String, Object > payload, UUID userId)
- List< [Execution](#) > [processWebhookEventForUser](#) (String service, String action, Map< String, Object > payload, UUID userId)
- List< [Execution](#) > [processWebhookEventGlobally](#) (String service, String action, Map< String, Object > payload)

3.128.1 Detailed Description

[Service](#) for processing webhook events and triggering AREA executions

3.128.2 Member Function Documentation

3.128.2.1 processWebhookEvent()

```
List< Execution > area.server.AREA_Back.service.WebhookEventProcessingService.processWebhook↔  
Event (   
    String service,  
    String action,  
    Map< String, Object > payload,  
    UUID userId)
```

Processes a webhook event and triggers matching action instances

Parameters

<i>service</i>	The service that sent the webhook (e.g., "github", "slack")
<i>action</i>	The action type (e.g., "issues", "pull_request", "message")
<i>payload</i>	The webhook payload
<i>userId</i>	Optional user ID to scope the search

Returns

List of created executions

3.128.2.2 processWebhookEventForUser()

```
List< Execution > area.server.AREA_Back.service.WebhookEventProcessingService.processWebhook↵  
EventForUser (↵  
    String service,  
    String action,  
    Map< String, Object > payload,  
    UUID userId)
```

Processes a webhook event for a specific user

Parameters

<i>service</i>	The service that sent the webhook
<i>action</i>	The action type
<i>payload</i>	The webhook payload
<i>userId</i>	The user ID

Returns

List of created executions

3.128.2.3 processWebhookEventGlobally()

```
List< Execution > area.server.AREA_Back.service.WebhookEventProcessingService.processWebhook↵  
EventGlobally (↵  
    String service,  
    String action,  
    Map< String, Object > payload)
```

Processes a webhook event globally (for all users)

Parameters

<i>service</i>	The service that sent the webhook
<i>action</i>	The action type
<i>payload</i>	The webhook payload

Returns

List of created executions

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/WebhookEventProcessingService.java

3.129 area.server.AREA_Back.service.WebhookSignatureValidator Class Reference

Public Member Functions

- boolean [validateGitHubSignature](#) (final byte[] payload, final String signature, final String secret)
- boolean [validateSlackSignature](#) (final byte[] payload, final String signature, final String secret, final String timestamp)
- boolean [validateHmacSha256Signature](#) (final byte[] payload, final String signature, final String secret)
- boolean [validateJwtSignature](#) (final String jwt, final String secret)
- boolean [validateSignature](#) (final String provider, final byte[] payload, final String signature, final String secret, final String timestamp)

3.129.1 Detailed Description

[Service](#) for validating webhook signatures from different providers

3.129.2 Member Function Documentation

3.129.2.1 validateGitHubSignature()

```
boolean area.server.AREA_Back.service.WebhookSignatureValidator.validateGitHubSignature (
    final byte[] payload,
    final String signature,
    final String secret)
```

Validates GitHub webhook signature GitHub uses HMAC-SHA256 with format: sha256=<hash>

Parameters

<i>payload</i>	The raw payload bytes
<i>signature</i>	The signature from X-Hub-Signature-256 header
<i>secret</i>	The webhook secret

Returns

true if signature is valid

3.129.2.2 validateHmacSha256Signature()

```
boolean area.server.AREA_Back.service.WebhookSignatureValidator.validateHmacSha256Signature (
    final byte[] payload,
    final String signature,
    final String secret)
```

Validates generic HMAC-SHA256 signature

Parameters

<i>payload</i>	The raw payload bytes
<i>signature</i>	The signature to validate
<i>secret</i>	The secret key

Returns

true if signature is valid

3.129.2.3 validateJwtSignature()

```
boolean area.server.AREA_Back.service.WebhookSignatureValidator.validateJwtSignature (
    final String jwt,
    final String secret)
```

Validates JWT signature (basic implementation) For more complex JWT validation, consider using a JWT library

Parameters

<i>jwt</i>	The JWT token
<i>secret</i>	The secret key

Returns

true if signature is valid

3.129.2.4 validateSignature()

```
boolean area.server.AREA_Back.service.WebhookSignatureValidator.validateSignature (
    final String provider,
    final byte[] payload,
    final String signature,
    final String secret,
    final String timestamp)
```

Validates webhook signature based on provider type

Parameters

<i>provider</i>	The provider name (github, slack, etc.)
<i>payload</i>	The raw payload bytes
<i>signature</i>	The signature to validate
<i>secret</i>	The secret key
<i>timestamp</i>	Optional timestamp for providers that require it

Returns

true if signature is valid

3.129.2.5 validateSlackSignature()

```
boolean area.server.AREA_Back.service.WebhookSignatureValidator.validateSlackSignature (
    final byte[] payload,
    final String signature,
    final String secret,
    final String timestamp)
```

Validates Slack webhook signature Slack uses HMAC-SHA256 with format: v0=<hash>

Parameters

<i>payload</i>	The raw payload bytes
<i>signature</i>	The signature from X-Slack-Signature header
<i>secret</i>	The webhook secret
<i>timestamp</i>	The timestamp from X-Slack-Request-Timestamp header

Returns

true if signature is valid

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/service/WebhookSignatureValidator.java

3.130 area.server.AREA_Back.controller.WorkerController Class Reference

Public Member Functions

- ResponseEntity< Map< String, Object > > **getWorkerStatus** ()
- ResponseEntity< Map< String, Long > > **getExecutionStatistics** ()
- ResponseEntity< Map< String, Object > > **getStreamInfo** ()
- ResponseEntity< Map< String, String > > **cancelExecution** (@PathVariable UUID executionId, @RequestParam(required=false) String reason)
- ResponseEntity< Map< String, String > > **sendTestEvent** (@RequestParam UUID actionInstanceId, @RequestParam UUID arealId)
- ResponseEntity< Map< String, String > > **initializeStream** ()

The documentation for this class was generated from the following file:

- src/main/java/area/server/AREA_Back/controller/WorkerController.java

Index

ACCESS_TOKEN_COOKIE_NAME
 area.server.AREA_Back.constants.AuthTokenConstants, [61](#)
 [30](#)

ACCESS_TOKEN_TYPE
 area.server.AREA_Back.constants.AuthTokenConstants, [30](#)

actuatorSecurityFilterChain
 area.server.AREA_Back.config.ActuatorSecurityConfig, [21](#)

area.server.AREA_Back.AllTestsSuite, [21](#)

area.server.AREA_Back.AreaBackApplication, [22](#)

area.server.AREA_Back.config.ActuatorSecurityConfig, [21](#)
 actuatorSecurityFilterChain, [21](#)

area.server.AREA_Back.config.AsyncConfig, [28](#)

area.server.AREA_Back.config.DatabaseConfig, [35](#)
 dataSource, [35](#)

area.server.AREA_Back.config.JwtCookieProperties, [44](#)

area.server.AREA_Back.config.OpenApiConfig, [50](#)

area.server.AREA_Back.config.RedisConfig, [51](#)

area.server.AREA_Back.config.RedisStreamProperties, [52](#)

area.server.AREA_Back.config.SecurityConfig, [53](#)

area.server.AREA_Back.config.TestCacheConfig, [62](#)

area.server.AREA_Back.config.TestRedisConfig, [63](#)

area.server.AREA_Back.config.TestSecurityConfig, [63](#)

area.server.AREA_Back.config.UnitTestConfig, [65](#)

area.server.AREA_Back.constants.AuthTokenConstants, [29](#)
 ACCESS_TOKEN_COOKIE_NAME, [30](#)
 ACCESS_TOKEN_TYPE, [30](#)
 REDIS_ACCESS_TOKEN_PREFIX, [30](#)
 REDIS_REFRESH_TOKEN_PREFIX, [30](#)
 REFRESH_TOKEN_COOKIE_NAME, [30](#)
 REFRESH_TOKEN_TYPE, [30](#)

area.server.AREA_Back.controller.AboutController, [9](#)

area.server.AREA_Back.controller.ActionDefinitionController, [9](#)

area.server.AREA_Back.controller.ActionInstanceController, [12](#)

area.server.AREA_Back.controller.ActionLinkController, [15](#)

area.server.AREA_Back.controller.AreaController, [23](#)

area.server.AREA_Back.controller.AuthController, [28](#)

area.server.AREA_Back.controller.OAuthController, [45](#)

area.server.AREA_Back.controller.OAuthLinkController, [48](#)

area.server.AREA_Back.controller.ServiceController, [59](#)

area.server.AREA_Back.controller.ServiceTokenController, [61](#)

area.server.AREA_Back.controller.TestController, [63](#)

area.server.AREA_Back.controller.UserController, [66](#)

area.server.AREA_Back.controller.UserServiceConnectionController, [76](#)

area.server.AREA_Back.controller.WebhookController, [77](#)
 handleGitHubWebhook, [77](#)
 handleWebhook, [77](#)
 testWebhook, [77](#)

area.server.AREA_Back.controller.WorkerController, [85](#)

area.server.AREA_Back.converter.AuthTypeConverter, [31](#)

area.server.AREA_Back.converter.DedupStrategyConverter, [36](#)

area.server.AREA_Back.dto.ActionDefinitionResponse, [11](#)

area.server.AREA_Back.dto.ActionInstanceResponse, [15](#)

area.server.AREA_Back.dto.ActionLinkResponse, [18](#)

area.server.AREA_Back.dto.AreaActionRequest, [22](#)

area.server.AREA_Back.dto.AreaEventMessage, [23](#)

area.server.AREA_Back.dto.AreaReactionRequest, [25](#)

area.server.AREA_Back.dto.AreaResponse, [27](#)

area.server.AREA_Back.dto.AuthResponse, [29](#)

area.server.AREA_Back.dto.BatchCreateActionLinksRequest, [31](#)

area.server.AREA_Back.dto.CreateActionInstanceRequest, [32](#)

area.server.AREA_Back.dto.CreateActionLinkRequest, [32](#)

area.server.AREA_Back.dto.CreateAreaRequest, [32](#)

area.server.AREA_Back.dto.CreateAreaWithActionsAndLinksRequest, [32](#)

area.server.AREA_Back.dto.CreateAreaWithActionsRequest, [32](#)

area.server.AREA_Back.dto.CreateServiceRequest, [33](#)

area.server.AREA_Back.dto.CreateUserRequest, [33](#)

area.server.AREA_Back.dto.ExecutionResult, [40](#)

area.server.AREA_Back.dto.LocalLoginRequest, [44](#)

area.server.AREA_Back.dto.OAuthLinkErrorResponse, [48](#)

area.server.AREA_Back.dto.OAuthLoginRequest, [48](#)

area.server.AREA_Back.dto.OAuthProvider, [48](#)

area.server.AREA_Back.dto.RegisterRequest, [52](#)

area.server.AREA_Back.dto.ServiceAccountResponse, [55](#)

area.server.AREA_Back.dto.ServiceConnectionStatus, [55](#)

- 59
- area.server.AREA_Back.dto.ServiceResponse, 61
- area.server.AREA_Back.dto.ServiceTokenRequest, 61
- area.server.AREA_Back.dto.ServiceTokenResponse, 62
- area.server.AREA_Back.dto.ServiceTokenStatusResponse, 62
- area.server.AREA_Back.dto.StoreTokenRequest, 62
- area.server.AREA_Back.dto.TokenRefreshRequest, 65
- area.server.AREA_Back.dto.UpdateUserRequest, 65
- area.server.AREA_Back.dto.UserResponse, 76
- area.server.AREA_Back.entity.ActionDefinition, 9
- area.server.AREA_Back.entity.ActionInstance, 11
- area.server.AREA_Back.entity.ActionLink, 15
- area.server.AREA_Back.entity.ActionLinkId, 15
- area.server.AREA_Back.entity.ActivationMode, 18
- area.server.AREA_Back.entity.Area, 22
- area.server.AREA_Back.entity.AreaCollaborator, 22
- area.server.AREA_Back.entity.AreaCollaboratorId, 22
- area.server.AREA_Back.entity.AuditLog, 28
- area.server.AREA_Back.entity.enums.ActivationModeType, 20
- area.server.AREA_Back.entity.enums.DedupStrategy, 36
- area.server.AREA_Back.entity.enums.ExecutionStatus, 41
- area.server.AREA_Back.entity.Event, 37
- area.server.AREA_Back.entity.Execution, 37
- area.server.AREA_Back.entity.Service, 53
- area.server.AREA_Back.entity.Service.AuthType, 31
- area.server.AREA_Back.entity.ServiceAccount, 53
- area.server.AREA_Back.entity.User, 66
- area.server.AREA_Back.entity.UserLocalIdentity, 68
 - isAccountLocked, 68
 - isEmailVerificationTokenValid, 68
 - isPasswordResetTokenValid, 68
- area.server.AREA_Back.entity.UserOAuthIdentity, 71
- area.server.AREA_Back.filter.JwtAuthenticationFilter, 43
- area.server.AREA_Back.repository.ActionDefinitionRepository, 10
 - findByService, 10
 - findByServiceAndKey, 10
 - findByServiceAndVersion, 10
 - findByServiceKey, 10
 - findEventCapableActions, 11
 - findExecutableActions, 11
- area.server.AREA_Back.repository.ActionInstanceRepository, 12
 - countByArea, 13
 - countByUser, 13
 - findActiveGitHubActionInstances, 13
 - findByArea, 13
 - findByIdWithActionDefinition, 13
 - findByUser, 13
 - findEnabledActionInstancesByService, 13
 - findEnabledActionInstancesByUserAndService, 14
 - findEnabledByArea, 14
 - findEnabledByUser, 14
 - findReactionsByArea, 14
- area.server.AREA_Back.repository.ActionLinkRepository, 16
 - deleteByActionInstance, 16
 - deleteByArea, 16
 - existsBySourceActionInstanceAndTargetActionInstance, 16
 - findByActionInstance, 16
 - findByActionInstanceId, 17
 - findByAreaIdOrderByOrder, 17
 - findByAreaOrderByOrder, 17
 - findBySourceActionInstance, 17
 - findBySourceActionInstanceId, 17
 - findBySourceActionInstanceIdWithTargetFetch, 17
 - findByTargetActionInstance, 18
- area.server.AREA_Back.repository.ActivationModeRepository, 19
 - findAllEnabled, 19
 - findByActionInstance, 19
 - findByActionInstanceAndEnabled, 19
 - findByActionInstanceAndType, 19
 - findByActionInstanceAndTypeAndEnabled, 20
 - findByTypeAndEnabled, 20
 - findByTypeAndEnabledWithActionInstance, 20
- area.server.AREA_Back.repository.AreaRepository, 25
 - countByUser, 26
 - findByNameContainingIgnoreCase, 26
 - findByUser, 26
 - findById, 26
 - findEnabledAreasByUser, 26
- area.server.AREA_Back.repository.ExecutionRepository, 37
 - countByStatus, 38
 - countFailedExecutionsSince, 38
 - findByActionInstance, 38
 - findByArea, 38
 - findByCorrelationId, 38
 - findByDedupKey, 38
 - findByIdWithActionInstance, 38
 - findByStatus, 39
 - findByStatusAndArea, 39
 - findExecutionsReadyForRetry, 39
 - findQueuedExecutionsOrderedByQueueTime, 39
 - findRecentExecutionsByActionInstance, 39
 - findTimedOutExecutions, 39
- area.server.AREA_Back.repository.ServiceAccountRepository, 54
 - findAccountsNeedingRefresh, 54
 - findActiveAccounts, 54
 - findActiveByUser, 54
 - findByService, 54
 - findByUser, 55
 - findByUserAndService, 55
- area.server.AREA_Back.repository.ServiceRepository, 59
 - existsByKey, 60
 - findAllEnabledServices, 60

- findByAuth, 60
- findByKey, 60
- findByName, 60
- findByNameContainingIgnoreCase, 60
- area.server.AREA_Back.repository.UserLocalIdentityRepository, 69
 - clearEmailVerificationToken, 69
 - clearPasswordResetToken, 69
 - existsByEmail, 70
 - findByEmail, 70
 - findByEmailVerificationToken, 70
 - findByPasswordResetToken, 70
 - findByUser, 70
 - findByUserId, 70
 - incrementFailedLoginAttempts, 71
 - lockAccount, 71
 - resetFailedLoginAttempts, 71
- area.server.AREA_Back.repository.UserOAuthIdentityRepository, 72
 - countByUserId, 72
 - deleteByUserIdAndProvider, 72
 - existsByProviderAndProviderUserId, 72
 - existsByUserAndProvider, 73
 - existsByUserIdAndProvider, 73
 - findByProvider, 73
 - findByProviderAndProviderUserId, 73
 - findByUser, 73
 - findByUserAndProvider, 73
 - findByUserId, 74
 - findByUserIdAndProvider, 74
 - findExpiredTokensWithRefreshToken, 74
 - updateAccessToken, 74
 - updateRefreshToken, 74
 - updateScopes, 74
 - updateTokenExpiration, 75
 - updateTokens, 75
- area.server.AREA_Back.repository.UserRepository, 75
 - existsByEmail, 76
 - findAllEnabledUsers, 76
 - findByEmail, 76
- area.server.AREA_Back.service.ActionLinkService, 18
- area.server.AREA_Back.service.AreaOrchestrationService, 23
 - getActivationStatistics, 24
 - handleActivationModeChange, 24
 - handleAreaStateChange, 24
 - handleExecutionCompletion, 24
 - initializeCronActivations, 24
 - shutdown, 24
- area.server.AREA_Back.service.AreaService, 27
 - createAreaWithActions, 27
- area.server.AREA_Back.service.AuthService, 29
- area.server.AREA_Back.service.CronSchedulerService, 33
 - cancelScheduledTask, 33
 - getActiveTasksCount, 33
 - getScheduledTasksStatus, 33
 - loadAndScheduleAllCronActivations, 34
 - reloadAllCronActivations, 34
 - rescheduleActivationMode, 34
 - scheduleActivationMode, 34
- area.server.AREA_Back.service.CustomUserDetailsService,
- area.server.AREA_Back.service.DataMappingService, 36
- area.server.AREA_Back.service.ExecutionService, 40
- area.server.AREA_Back.service.ExecutionTriggerService, 41
 - triggerAreaExecution, 41
 - triggerManualExecution, 41
- area.server.AREA_Back.service.GitHubActionService, 42
- area.server.AREA_Back.service.GitHubEventPollingService, 42
- area.server.AREA_Back.service.GitHubWebhookService, 42
 - processWebhook, 42
- area.server.AREA_Back.service.JsonSchemaValidationService, 43
- area.server.AREA_Back.service.JwtService, 44
- area.server.AREA_Back.service.OAuthGithubService, 45
 - authenticate, 46
- area.server.AREA_Back.service.OAuthGoogleService, 46
 - authenticate, 47
- area.server.AREA_Back.service.OAuthService, 49
- area.server.AREA_Back.service.ReactionChainService, 50
 - processReactionChain, 50
 - triggerChainReaction, 50
- area.server.AREA_Back.service.RedisEventService, 51
- area.server.AREA_Back.service.RedisTokenService, 52
- area.server.AREA_Back.service.ServiceAccountService, 55
 - createOrUpdateServiceAccount, 56
 - getAccessToken, 56
 - getServiceAccount, 56
 - getUserServiceAccounts, 56
 - hasValidToken, 56
 - revokeServiceAccount, 56
 - storeTokenMetadata, 57
- area.server.AREA_Back.service.ServiceCacheService, 57
 - getAllServicesCached, 57
 - getAllServicesUncached, 57
 - getEnabledServicesCached, 58
 - invalidateServicesCache, 58
 - isCacheAvailable, 58
- area.server.AREA_Back.service.TokenEncryptionService, 64
 - decryptToken, 64
 - encryptToken, 64
 - generateNewKeyAsBase64, 64
 - getKeyAsBase64, 65
- area.server.AREA_Back.service.UserIdentityService,

- 66
- getOAuthIdentity, 67
- getPrimaryOAuthProvider, 67
- getUserCreationType, 67
- getUserOAuthIdentities, 67
- hasLocalIdentity, 67
- hasOAuthIdentity, 67
- needsServiceConnection, 68
- area.server.AREA_Back.service.UserIdentityService.UserCreationType, 66
- area.server.AREA_Back.service.WebhookDeduplicationService, 78
 - checkAndMark, 78
 - clearProviderEvents, 79
 - getRemainingTtl, 79
 - isDuplicate, 79
 - markAsProcessed, 80
 - removeEvent, 80
- area.server.AREA_Back.service.WebhookEventProcessingService, 81
 - processWebhookEvent, 81
 - processWebhookEventForUser, 81
 - processWebhookEventGlobally, 82
- area.server.AREA_Back.service.WebhookSignatureValidator, 83
 - validateGitHubSignature, 83
 - validateHmacSha256Signature, 83
 - validateJwtSignature, 84
 - validateSignature, 84
 - validateSlackSignature, 84
- area.server.AREA_Back.TestAreaBackApplication, 62
- area.server.AREA_Back.TestcontainersConfiguration, 63
- area.server.AREA_Back.util.AuthenticationUtils, 29
- area.server.AREA_Back.worker.AreaReactionWorker, 25
- area.server.AREA_Back.worker.ReactionExecutor, 51
- area.server.AREA_Back.worker.RetryManager, 52
- authenticate
 - area.server.AREA_Back.service.OAuthGithubService, 46
 - area.server.AREA_Back.service.OAuthGoogleService, 47
- cancelScheduledTask
 - area.server.AREA_Back.service.CronSchedulerService, 33
- checkAndMark
 - area.server.AREA_Back.service.WebhookDeduplicationService, 78
- clearEmailVerificationToken
 - area.server.AREA_Back.repository.UserLocalIdentityRepository, 69
- clearPasswordResetToken
 - area.server.AREA_Back.repository.UserLocalIdentityRepository, 69
- clearProviderEvents
 - area.server.AREA_Back.service.WebhookDeduplicationService, 79
- countByArea
 - area.server.AREA_Back.repository.ActionInstanceRepository, 13
- countByStatus
 - area.server.AREA_Back.repository.ExecutionRepository, 38
- countByUser
 - area.server.AREA_Back.repository.ActionInstanceRepository, 13
 - area.server.AREA_Back.repository.AreaRepository, 26
- countByUserId
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 72
- countFailedExecutionsSince
 - area.server.AREA_Back.repository.ExecutionRepository, 38
- createAreaWithActions
 - area.server.AREA_Back.service.AreaService, 27
- createOrUpdateServiceAccount
 - area.server.AREA_Back.service.ServiceAccountService, 56
- dataSource
 - area.server.AREA_Back.config.DatabaseConfig, 35
- decryptToken
 - area.server.AREA_Back.service.TokenEncryptionService, 64
- deleteByActionInstance
 - area.server.AREA_Back.repository.ActionLinkRepository, 16
- deleteByArea
 - area.server.AREA_Back.repository.ActionLinkRepository, 16
- deleteByUserIdAndProvider
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 72
- encryptToken
 - area.server.AREA_Back.service.TokenEncryptionService, 64
- existsByEmail
 - area.server.AREA_Back.repository.UserLocalIdentityRepository, 70
 - area.server.AREA_Back.repository.UserRepository, 76
- existsByKey
 - area.server.AREA_Back.repository.ServiceRepository, 60
- existsByProviderAndProviderUserId
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 72
- existsBySourceActionInstanceAndTargetActionInstance
 - area.server.AREA_Back.repository.ActionLinkRepository, 16
- existsByUserAndProvider
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 73

existsByUserIdAndProvider
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, 98
 73
 findByDedupKey
 area.server.AREA_Back.repository.ExecutionRepository, 38
 findAccountsNeedingRefresh
 area.server.AREA_Back.repository.ServiceAccountRepository, 54
 findByEmail
 area.server.AREA_Back.repository.UserLocalIdentityRepository, 70
 findActiveAccounts
 area.server.AREA_Back.repository.ServiceAccountRepository, 54
 area.server.AREA_Back.repository.UserRepository, 76
 findActiveByUser
 area.server.AREA_Back.repository.ServiceAccountRepository, 54
 findByEmailVerificationToken
 area.server.AREA_Back.repository.UserLocalIdentityRepository, 70
 findActiveGitHubActionInstances
 area.server.AREA_Back.repository.ActionInstanceRepository, 13
 findByIdWithActionDefinition
 area.server.AREA_Back.repository.ActionInstanceRepository, 13
 findAllEnabled
 area.server.AREA_Back.repository.ActivationModeRepository, 19
 findByIdWithActionInstance
 area.server.AREA_Back.repository.ExecutionRepository, 38
 findAllEnabledServices
 area.server.AREA_Back.repository.ServiceRepository, 60
 findByKey
 area.server.AREA_Back.repository.ServiceRepository, 60
 findAllEnabledUsers
 area.server.AREA_Back.repository.UserRepository, 76
 findByName
 area.server.AREA_Back.repository.ServiceRepository, 60
 findByActionInstance
 area.server.AREA_Back.repository.ActionLinkRepository, 16
 findByNameContainingIgnoreCase
 area.server.AREA_Back.repository.AreaRepository, 26
 area.server.AREA_Back.repository.ActivationModeRepository, 19
 area.server.AREA_Back.repository.ExecutionRepository, 38
 findByPasswordResetToken
 area.server.AREA_Back.repository.UserLocalIdentityRepository, 70
 findByActionInstanceAndEnabled
 area.server.AREA_Back.repository.ActivationModeRepository, 19
 findByProvider
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, 73
 findByActionInstanceAndType
 area.server.AREA_Back.repository.ActivationModeRepository, 19
 findByProviderAndProviderUserId
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, 73
 findByActionInstanceAndTypeAndEnabled
 area.server.AREA_Back.repository.ActivationModeRepository, 20
 findByService
 area.server.AREA_Back.repository.ActionDefinitionRepository, 10
 findByActionInstanceId
 area.server.AREA_Back.repository.ActionLinkRepository, 17
 area.server.AREA_Back.repository.ServiceAccountRepository, 54
 findByArea
 area.server.AREA_Back.repository.ActionInstanceRepository, 13
 findByServiceAndKey
 area.server.AREA_Back.repository.ActionDefinitionRepository, 10
 area.server.AREA_Back.repository.ExecutionRepository, 38
 findByServiceAndVersion
 area.server.AREA_Back.repository.ActionDefinitionRepository, 10
 findByAreaIdOrderByOrder
 area.server.AREA_Back.repository.ActionLinkRepository, 17
 findByServiceKey
 area.server.AREA_Back.repository.ActionDefinitionRepository, 10
 findByAreaOrderByOrder
 area.server.AREA_Back.repository.ActionLinkRepository, 17
 findBySourceActionInstance
 area.server.AREA_Back.repository.ActionLinkRepository, 17
 findByAuth
 area.server.AREA_Back.repository.ServiceRepository, 60
 findBySourceActionInstanceId
 area.server.AREA_Back.repository.ActionLinkRepository, 17
 findByCorrelationId

- 17
- findBySourceActionInstanceIdWithTargetFetch
 - area.server.AREA_Back.repository.ActionLinkRepository, 14
- 17
- findByStatus
 - area.server.AREA_Back.repository.ExecutionRepository, 11
- 39
- findByStatusAndArea
 - area.server.AREA_Back.repository.ExecutionRepository, 11
- 39
- findByTargetActionInstance
 - area.server.AREA_Back.repository.ActionLinkRepository, 39
- 18
- findByTypeAndEnabled
 - area.server.AREA_Back.repository.ActivationModeRepository, 74
- 20
- findByTypeAndEnabledWithActionInstance
 - area.server.AREA_Back.repository.ActivationModeRepository, 39
- 20
- findByUser
 - area.server.AREA_Back.repository.ActionInstanceRepository, 14
 - 13
 - area.server.AREA_Back.repository.AreaRepository, 39
 - 26
 - area.server.AREA_Back.repository.ServiceAccountRepository, 39
 - 55
 - area.server.AREA_Back.repository.UserLocalIdentityRepository, 39
 - 70
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 73
- findByUserAndProvider
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 73
- findByUserAndService
 - area.server.AREA_Back.repository.ServiceAccountRepository, 55
- findByUserId
 - area.server.AREA_Back.repository.AreaRepository, 26
 - area.server.AREA_Back.repository.UserLocalIdentityRepository, 70
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 74
- findByUserIdAndProvider
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 74
- findEnabledActionInstancesByService
 - area.server.AREA_Back.repository.ActionInstanceRepository, 13
- findEnabledActionInstancesByUserAndService
 - area.server.AREA_Back.repository.ActionInstanceRepository, 14
- findEnabledAreasByUser
 - area.server.AREA_Back.repository.AreaRepository, 26
- findEnabledByArea
 - area.server.AREA_Back.repository.ActionInstanceRepository, 14
- findEnabledByUser
 - area.server.AREA_Back.repository.ActionInstanceRepository, 14
- findEventCapableActions
 - area.server.AREA_Back.repository.ActionDefinitionRepository, 11
- findExecutableActions
 - area.server.AREA_Back.repository.ActionDefinitionRepository, 11
- findExecutionsReadyForRetry
 - area.server.AREA_Back.repository.ExecutionRepository, 39
- findExpiredTokensWithRefreshToken
 - area.server.AREA_Back.repository.UserOAuthIdentityRepository, 74
- findQueuedExecutionsOrderedByQueueTime
 - area.server.AREA_Back.repository.ExecutionRepository, 39
- findReactionsByArea
 - area.server.AREA_Back.repository.ActionInstanceRepository, 14
- findRecentExecutionsByActionInstance
 - area.server.AREA_Back.repository.ExecutionRepository, 39
- findOutExecutions
 - area.server.AREA_Back.repository.ExecutionRepository, 39
- generateNewKeyAsBase64
 - area.server.AREA_Back.service.TokenEncryptionService, 64
- getAccessToken
 - area.server.AREA_Back.service.ServiceAccountService, 56
- getActivationStatistics
 - area.server.AREA_Back.service.AreaOrchestrationService, 24
- getActiveTasksCount
 - area.server.AREA_Back.service.CronSchedulerService, 33
- getAllServicesCached
 - area.server.AREA_Back.service.ServiceCacheService, 57
- getAllServicesUncached
 - area.server.AREA_Back.service.ServiceCacheService, 57
- getEnabledServicesCached
 - area.server.AREA_Back.service.ServiceCacheService, 58
- getKeyAsBase64
 - area.server.AREA_Back.service.TokenEncryptionService, 65
- getOAuthIdentity
 - area.server.AREA_Back.service.UserIdentityService, 67
- getPrimaryOAuthProvider
 - area.server.AREA_Back.service.UserIdentityService, 67
- getRemainingTtl

area.server.AREA_Back.service.WebhookDeduplicationService, 79
 getScheduledTasksStatus
 area.server.AREA_Back.service.CronSchedulerService, 33
 getServiceAccount
 area.server.AREA_Back.service.ServiceAccountService, 56
 getUserCreationType
 area.server.AREA_Back.service.UserIdentityService, 67
 getUserOAuthIdentities
 area.server.AREA_Back.service.UserIdentityService, 67
 getUserServiceAccounts
 area.server.AREA_Back.service.ServiceAccountService, 56
 handleActivationModeChange
 area.server.AREA_Back.service.AreaOrchestrationService, 24
 handleAreaStateChange
 area.server.AREA_Back.service.AreaOrchestrationService, 24
 handleExecutionCompletion
 area.server.AREA_Back.service.AreaOrchestrationService, 24
 handleGitHubWebhook
 area.server.AREA_Back.controller.WebhookController, 77
 handleWebhook
 area.server.AREA_Back.controller.WebhookController, 77
 hasLocalIdentity
 area.server.AREA_Back.service.UserIdentityService, 67
 hasOAuthIdentity
 area.server.AREA_Back.service.UserIdentityService, 67
 hasValidToken
 area.server.AREA_Back.service.ServiceAccountService, 56
 incrementFailedLoginAttempts
 area.server.AREA_Back.repository.UserLocalIdentityRepository, 71
 initializeCronActivations
 area.server.AREA_Back.service.AreaOrchestrationService, 24
 invalidateServicesCache
 area.server.AREA_Back.service.ServiceCacheService, 58
 isAccountLocked
 area.server.AREA_Back.entity.UserLocalIdentity, 68
 isCacheAvailable
 area.server.AREA_Back.service.ServiceCacheService, 58
 isDuplicate
 area.server.AREA_Back.service.WebhookDeduplicationService, 79
 isEmailVerificationTokenValid
 area.server.AREA_Back.entity.UserLocalIdentity, 68
 isPasswordResetTokenValid
 area.server.AREA_Back.entity.UserLocalIdentity, 68
 loadAndScheduleAllCronActivations
 area.server.AREA_Back.service.CronSchedulerService, 34
 lockAccount
 area.server.AREA_Back.repository.UserLocalIdentityRepository, 71
 markAsProcessed
 area.server.AREA_Back.service.WebhookDeduplicationService, 80
 needsServiceConnection
 area.server.AREA_Back.service.UserIdentityService, 68
 processReactionChain
 area.server.AREA_Back.service.ReactionChainService, 50
 processWebhook
 area.server.AREA_Back.service.GitHubWebhookService, 42
 processWebhookEvent
 area.server.AREA_Back.service.WebhookEventProcessingService, 81
 processWebhookEventForUser
 area.server.AREA_Back.service.WebhookEventProcessingService, 81
 processWebhookEventGlobally
 area.server.AREA_Back.service.WebhookEventProcessingService, 82
 REDIS_ACCESS_TOKEN_PREFIX
 area.server.AREA_Back.constants.AuthTokenConstants, 30
 REDIS_REFRESH_TOKEN_PREFIX
 area.server.AREA_Back.constants.AuthTokenConstants, 30
 REFRESH_TOKEN_COOKIE_NAME
 area.server.AREA_Back.constants.AuthTokenConstants, 30
 REFRESH_TOKEN_TYPE
 area.server.AREA_Back.constants.AuthTokenConstants, 30
 reloadAllCronActivations
 area.server.AREA_Back.service.CronSchedulerService, 34
 removeEvent
 area.server.AREA_Back.service.WebhookDeduplicationService, 80
 rescheduleActivationMode

area.server.AREA_Back.service.CronSchedulerService, [34](#)
 area.server.AREA_Back.service.WebhookSignatureValidator, [84](#)
 resetFailedLoginAttempts [71](#)
 area.server.AREA_Back.repository.UserLocalIdentityRepository, [71](#)
 validateSlackSignature [84](#)
 area.server.AREA_Back.service.WebhookSignatureValidator, [84](#)
 revokeServiceAccount [56](#)
 area.server.AREA_Back.service.ServiceAccountService, [56](#)
 scheduleActivationMode [34](#)
 area.server.AREA_Back.service.CronSchedulerService, [34](#)
 shutdown [24](#)
 area.server.AREA_Back.service.AreaOrchestrationService, [24](#)
 storeTokenMetadata [57](#)
 area.server.AREA_Back.service.ServiceAccountService, [57](#)
 testWebhook [77](#)
 area.server.AREA_Back.controller.WebhookController, [77](#)
 triggerAreaExecution [41](#)
 area.server.AREA_Back.service.ExecutionTriggerService, [41](#)
 triggerChainReaction [50](#)
 area.server.AREA_Back.service.ReactionChainService, [50](#)
 triggerManualExecution [41](#)
 area.server.AREA_Back.service.ExecutionTriggerService, [41](#)
 updateAccessToken [74](#)
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, [74](#)
 updateRefreshToken [74](#)
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, [74](#)
 updateScopes [74](#)
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, [74](#)
 updateTokenExpiration [75](#)
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, [75](#)
 updateTokens [75](#)
 area.server.AREA_Back.repository.UserOAuthIdentityRepository, [75](#)
 validateGitHubSignature [83](#)
 area.server.AREA_Back.service.WebhookSignatureValidator, [83](#)
 validateHmacSha256Signature [83](#)
 area.server.AREA_Back.service.WebhookSignatureValidator, [83](#)
 validateJwtSignature [84](#)
 area.server.AREA_Back.service.WebhookSignatureValidator, [84](#)
 validateSignature