

Report 7

Class Diagram

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1. Introduction

This report is part of the Hivilake document. This document recommend the detail design of the system derived from the logical diagram.

2. Objective

The report mentions about the detail implementation of lake. It will map the analysis feature into the implementing class then provides the interact between them.

3. Feature Explanation

Feature	Describe
StorageWrapper	The storage interface
StorageWrapper.Core	The basic storage interface expected in all storage
StorageWrapper.Core.FileSystem	The core interface wrapped FileSystem
StorageWrapper.Core.FileSystem.CRUD	The methods supply file operations
StorageWrapper.Core.FileSystem.Search	The method allows get all file matching pattern
StorageWrapper.Core.FileSystem.FileStatus	The method provide detail info of file
StorageWrapper.Core.Sql	The core interface for interacting with tabular data
StorageWrapper.Core.Sql.DDL	The method provide DDL operations
StorageWrapper.Core.Sql.DML	The method provide DML operations
StorageWrapper.Core.Sql.TCL	The method provide TCL operations
StorageWrapper.Extra	The external interfaces that provide advance feature of a specific storage group
StorageManager	The utility manages lake data
StorageManager.InitializeStorage	The method create space storing data
StorageManager.UpdateStorage	The method ingest data into lake
StorageManager.AuditStorage	The method verify data quality
FileQuery	The utility provides search mechanism to lake
FileQuery.StorageSearch	The method directly search without indexing
FileQuery.CacheSearch	The method index part of data for searching
FileQuery.DataLoad	The simple extract data method
SystemLog	Special utility provides tracking mechanism of lake
SystemLog.ActivityLog	Logging system action
SystemLog.RepositoryLog	Keep tracking the repo healthy
SystemLog.CentralInfo	Supply the sharing information for whole lake

Feature	Describe
Api	Application interface to access lake
Api.DefaultApi	Basic feature interface of utility
Api.BusinessRuleApi	Customize interface defined by business domain

4. Class Design

The section analyzes and parses each feature into set of interactive object.

4.1 Api

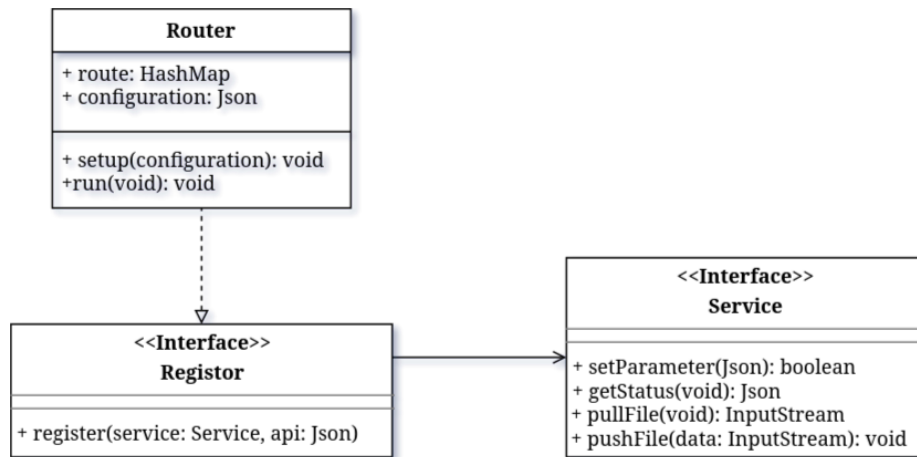


Figure 1: Api Class Design

4.2 Utilities

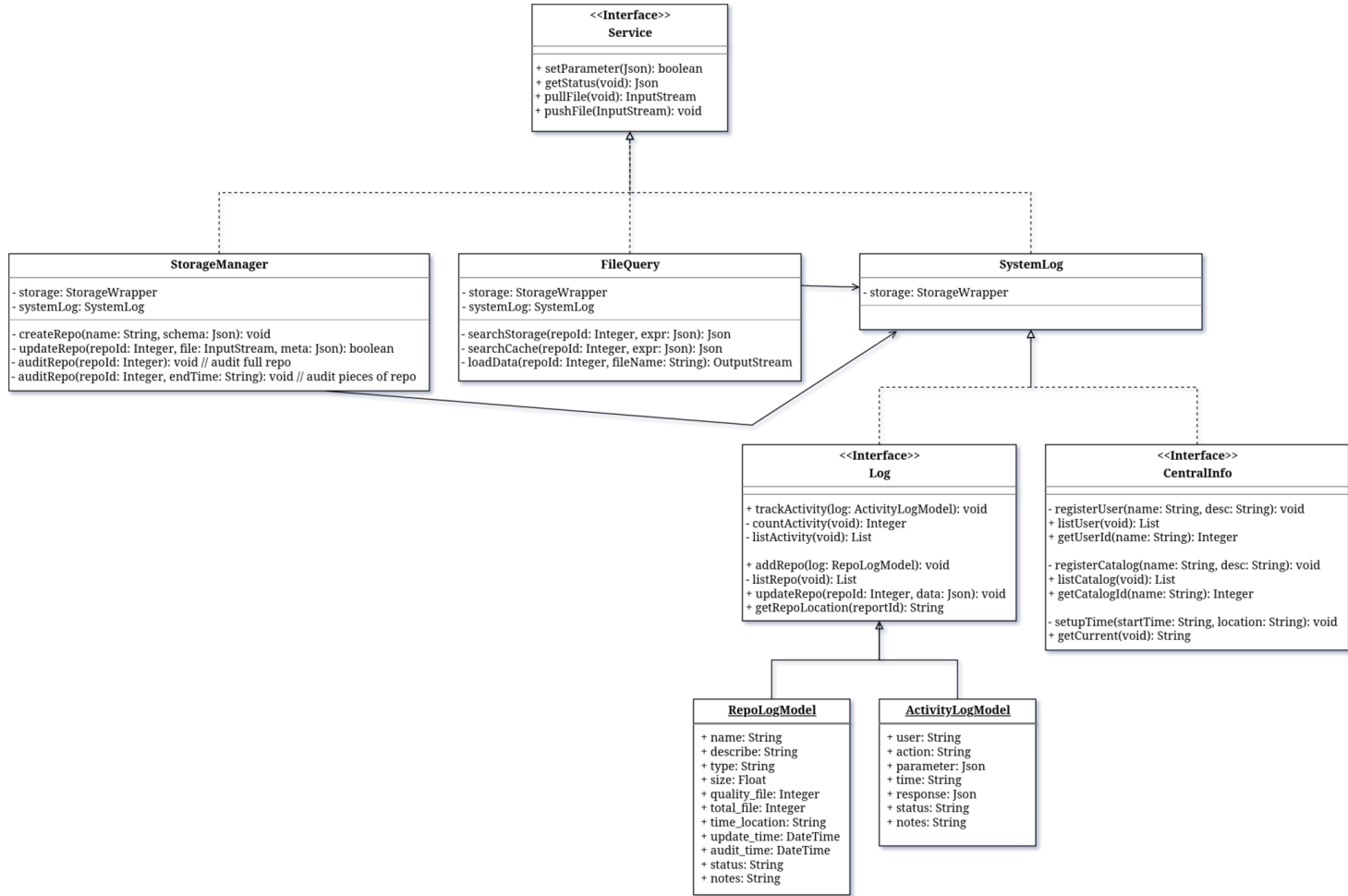


Figure 2: Utilities Class Design

4.3 Storage

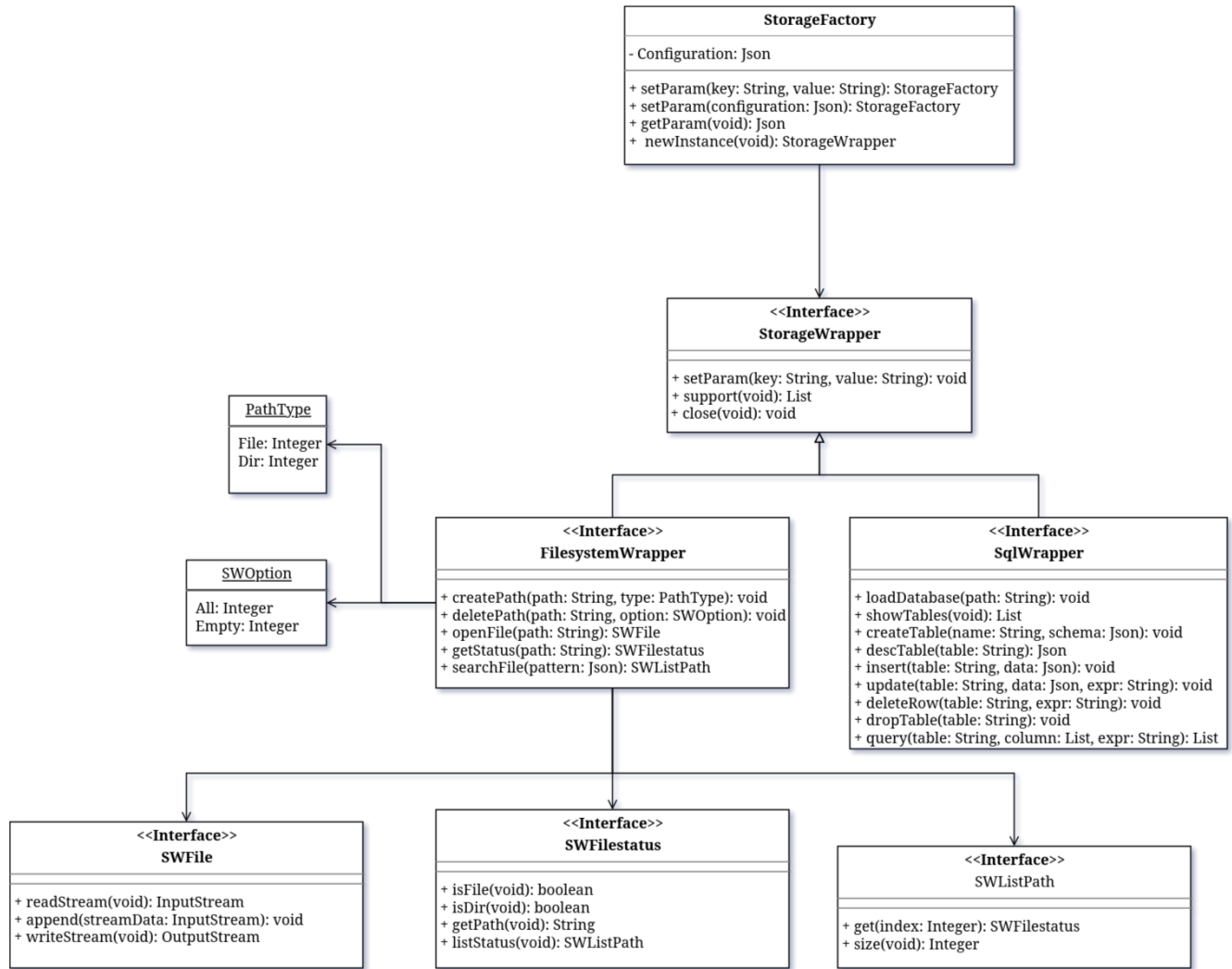


Figure 3: Storage Class Design

4.4 Final Class Diagram

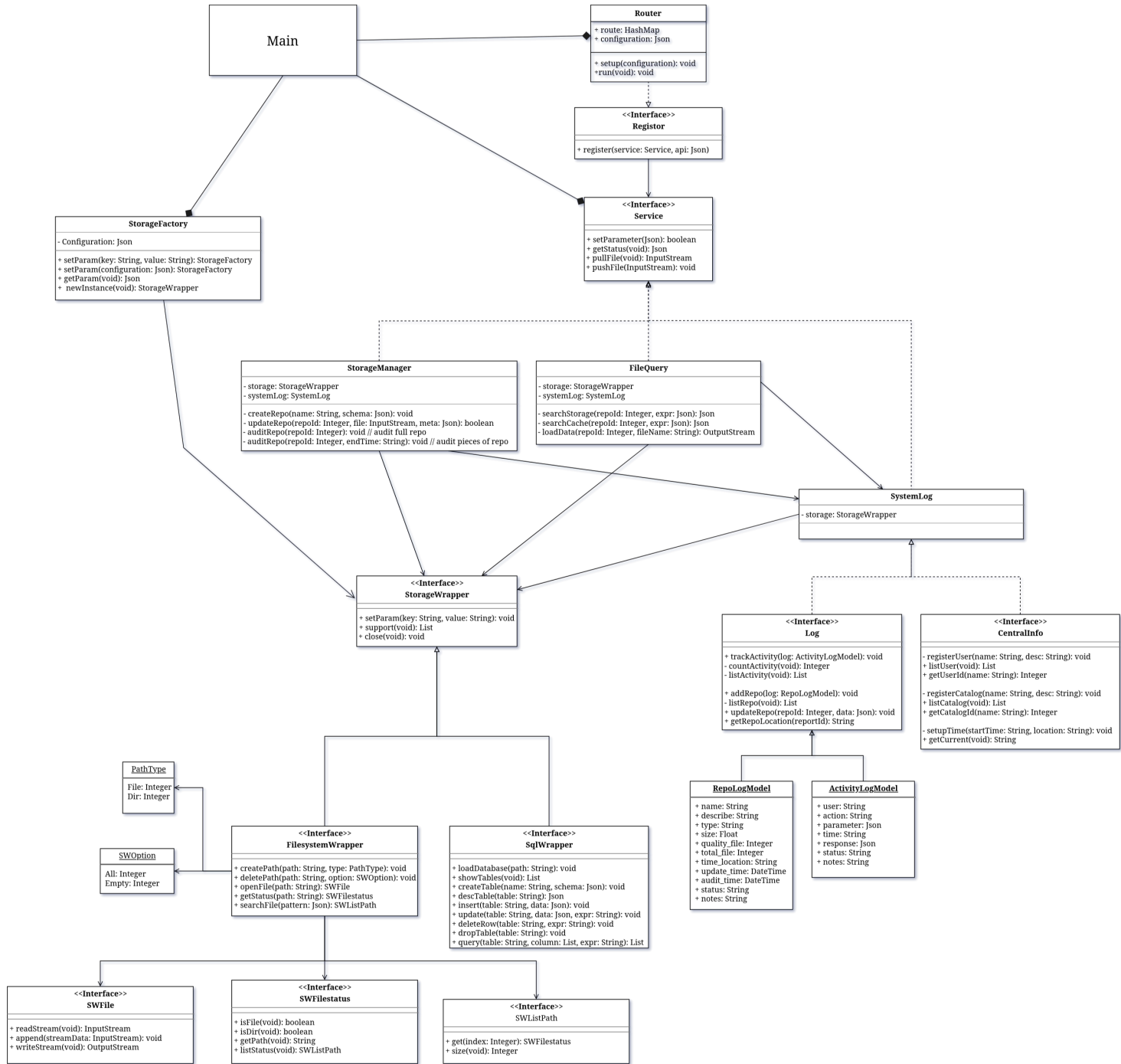


Figure 4: System Class Diagram

Reference

<https://creately.com/blog/diagrams/class-diagram-tutorial/>