Module	Class/Actor	Function Name	Description	Parameters	Return Type	Category	Access Level	Async
SQLiteManager	SQLiteManager	start	"Initialize database connection"	"inMemory: Bool"	SQLiteManager	Initialization	public	Yes
SQLiteManager	SQLiteManager	initialize	"Setup database with migrations"	"inMemory: Bool"	Void	Initialization	public	Yes
SQLiteManager	SQLiteManager	runMigrations	"Execute all database migrations"	None	Void	Migration	private	Yes
SQLiteManager	SQLiteManager	scheduleMaintenanceTasks	"Schedule periodic database maintenance"	None	Void	Maintenance	private	No
SQLiteManager	SQLiteManager	performMaintenance	"Execute database maintenance tasks"	None	Void	Maintenance	private	Yes
SQLiteManager	SQLiteManager	prepareStatements	"Prepare SQL statements for optimization"	None	Void	Optimization	private	Yes
SQLiteManager	SQLiteManager	ensureInitialized	"Verify database is initialized"	None	Void	Validation	private	No
SQLiteManager	SQLiteManager	execute	"Execute SQL statement without return"	"sql: String, parameters: [Binding]"	Void	Database Operation	public	Yes
SQLiteManager	SQLiteManager	query	"Execute SQL query with results"	"sql: String, parameters: [Binding]"	"[[String: Any]]"	Database Operation	public	Yes
SQLiteManager	SQLiteManager	saveTaskPhoto	"Save task photo to filesystem"	"taskId: String, imageData: Data"	String	Photo Management	public	Yes
SQLiteManager	SQLiteManager	getPendingPhotoUploads	"Get photos pending upload"	"limit: Int"	"[(id: Int64, taskId: String, path: String)]"	Photo Management	public	Yes
SQLiteManager	SQLiteManager	cacheWeatherData	"Cache weather forecast data"	"buildingId: String, forecastData: Data, riskScore: Double, expiresIn: TimeInterval"	Void	Weather	public	Yes
SQLiteManager	SQLiteManager	getCachedWeather	"Retrieve cached weather data"	"buildingId: String"	"(data: Data, riskScore: Double)?"	Weather	public	Yes
SQLiteManager	SQLiteManager	isFeatureEnabled	"Check if feature flag is enabled"	"key: String"	Bool	Feature Flags	public	Yes
SQLiteManager	SQLiteManager	logClockInAsync	"Log worker clock in time"	"workerId: Int64, buildingId: Int64, timestamp: Date"	Void	Time Tracking	public	Yes
SQLiteManager	SQLiteManager	logClockOutAsync	"Log worker clock out time"	"workerId: Int64, timestamp: Date"	Void	Time Tracking	public	Yes
SQLiteManager	SQLiteManager	isWorkerClockedInAsync	"Check worker clock in status"	"workerId: Int64"	"(isClockedIn: Bool, buildingId: Int64?)"	Time Tracking	public	Yes
SQLiteManager	SQLiteManager	logClockIn	"Non-async wrapper for clock in"	"workerId: Int64, buildingId: Int64, timestamp: Date"	Void	Time Tracking	public	No
SQLiteManager	SQLiteManager	logClockOut	"Non-async wrapper for clock out"	"workerId: Int64, timestamp: Date"	Void	Time Tracking	public	No
SQLiteManager	SQLiteManager	isWorkerClockedIn	"Non-async wrapper for clock in check"	"workerId: Int64"	"(isClockedIn: Bool, buildingId: Int64?)"	Time Tracking	public	No
SQLiteManager	DatabaseMigrator	getCurrentVersion	"Get current schema version"	None	Int	Migration	public	No
SQLiteManager	DatabaseMigrator	migrate	"Run pending migrations"	"migrations: [DatabaseMigration]"	Void	Migration	public	No
SQLiteManager	DatabaseMigrator	rollback	"Rollback to specific version"	"to: Int, migrations: [DatabaseMigration]"	Void	Migration	public	No
TaskManager	TaskManager	setupDatabase	"Initialize database tables"	None	Void	Initialization	private	Yes
TaskManager	TaskManager	createRequiredTables	"Create task-related					

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tables",None,Void,Initialization,private,Yes
TaskManager,TaskManager,initializeRealTasks,"Load                    initial                    task
data",None,Void,Initialization,private,Yes
TaskManager,TaskManager,loadTasksFromCSVData,"Import       tasks         from         CSV
format",None,Void,Data Import,private,Yes
TaskManager,TaskManager,createTaskFromCSVData,"Create      single      task      from      CSV
data","buildingName: String, taskName: String, workerName: String, category: String,
skillLevel: String, recurrence: String, description: String, urgency: String, dueOffset:
Int",Void,Data Import,private,Yes
TaskManager,TaskManager,fetchTasks,"Get tasks for worker on date (sync)","forWorker:
String, date: Date","[MaintenanceTask]",Task Retrieval,public,No
TaskManager,TaskManager,fetchTasksAsync,"Get    tasks    for    worker    on    date","forWorker:
String, date: Date","[MaintenanceTask]",Task Retrieval,public,Yes
TaskManager,TaskManager,fetchAssignedWorkers,"Get    workers    assigned    to    task","taskId:
Int64","[String]",Task Assignment,private,Yes
TaskManager,TaskManager,fetchTasks,"Get tasks for building (sync)","forBuilding: String,
includePastTasks: Bool","[MaintenanceTask]",Task Retrieval,public,No
TaskManager,TaskManager,fetchTasksAsync,"Get    tasks    for    building","forBuilding: String,
includePastTasks: Bool","[MaintenanceTask]",Task Retrieval,public,Yes
TaskManager,TaskManager,createTask,"Create            new            task            (sync)","task:
MaintenanceTask",Bool,Task Creation,public,No
TaskManager,TaskManager,createTaskAsync,"Create               new               task","task:
MaintenanceTask",Bool,Task Creation,public,Yes
TaskManager,TaskManager,createTaskAssignments,"Assign    workers    to    task","taskId:    Int64,
workerIds: [String]",Void,Task Assignment,public,Yes
TaskManager,TaskManager,toggleTaskCompletion,"Toggle    task    completion    (sync)","taskID:
String, completedBy: String",Void,Task Management,public,No
TaskManager,TaskManager,toggleTaskCompletionAsync,"Toggle     task     completion","taskID:
String, completedBy: String",Void,Task Management,public,Yes
TaskManager,TaskManager,scheduleNextOccurrenceForTask,"Create         next         recurring
task","taskId: Int64",Void,Task Scheduling,private,Yes
TaskManager,TaskManager,scheduleNextOccurrence,"Schedule    next    task    occurrence","task:
MaintenanceTask",Void,Task Scheduling,private,Yes
TaskManager,TaskManager,createWeatherBasedTasks,"Create      weather-triggered      tasks
(sync)","buildingID: String, tasks: [MaintenanceTask]",Void,Weather Tasks,public,No
TaskManager,TaskManager,createWeatherBasedTasksAsync,"Create            weather-triggered
tasks","buildingID: String, tasks: [MaintenanceTask]",Void,Weather Tasks,public,Yes
TaskManager,TaskManager,fetchMaintenanceHistory,"Get            maintenance            history
(sync)","forBuilding: String, limit: Int","[MaintenanceRecord]",History,public,No
TaskManager,TaskManager,fetchMaintenanceHistoryAsync,"Get                    maintenance
history","forBuilding: String, limit: Int","[MaintenanceRecord]",History,public,Yes
TaskManager,TaskManager,getUpcomingTasks,"Get    upcoming    tasks    for    worker","forWorker:
String, days: Int","[MaintenanceTask]",Task Retrieval,public,No
TaskManager,TaskManager,getTasksByCategory,"Get tasks grouped by category","forWorker:
String","[TaskCategory: [MaintenanceTask]]",Task Organization,public,No
TaskManager,TaskManager,getPastDueTasks,"Get         overdue         tasks","forWorker:
String","[MaintenanceTask]",Task Retrieval,public,No
TaskManager,TaskManager,getAllTaskTemplates,"Get                    all                    task
templates",None,"[FrancoTaskTemplate]",Task Templates,public,No
TaskManager,TaskManager,createTaskFromTemplate,"Create     task     from     template","template:
FrancoTaskTemplate, buildingId: String, dueDate: Date, workerIds: [String]",Bool,Task
Creation,public,No
TaskManager,TaskManager,fetchTasks,"Get tasks in date range (sync)","fromDate: Date,
toDate: Date","[MaintenanceTask]",Task Retrieval,public,No
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TaskManager,TaskManager,fetchTasksAsync,"Get tasks in date range","fromDate: Date,
toDate: Date","[MaintenanceTask]",Task Retrieval,public,Yes
TaskManager,TaskManager,retrieveTasks,"Wrapper for fetchTasks","forBuilding: String,
includePastTasks: Bool","[MaintenanceTask]",Task Retrieval,public,No
TaskManager,TaskManager,getTasks,"Get tasks for building by category","forBuilding:
String, category: TaskCategory?","[MaintenanceTask]",Task Retrieval,public,No
TaskManager,TaskManager,getMaintenanceStats,"Get task statistics","forBuilding: String,
period: Int","(completed: Int, pending: Int, overdue: Int)",Statistics,public,No
TaskManager,TaskManager,getWorkerRoutineTasks,"Get routine tasks by building","workerId:
String","[String: [MaintenanceTask]]",Worker Routines,public,Yes
TaskManager,TaskManager,taskExistsWithExternalId,"Check if external task
exists","externalId: String",Bool,Validation,public,Yes
CSVDataImporter,CSVDataImporter,importRealWorldTasks,"Import all CSV task
data",None,"(imported: Int, errors: [String])",Data Import,public,Yes
CSVDataImporter,CSVDataImporter,generateExternalId,"Create unique task
identifier","task: CSVTaskAssignment, index: Int",String,Utility,private,No
CSVDataImporter,CSVDataImporter,calculateDueDate,"Calculate task due date","recurrence:
String, from: Date",Date,Scheduling,private,No
CSVDataImporter,CSVDataImporter,logImportResults,"Log import results to file","imported:
Int, errors: [String]",Void,Logging,private,Yes
CSVDataImporter,CSVDataImporter,saveErrorsToCSV,"Save import errors to CSV","errors:
[String]",Void,Error Handling,private,Yes
CSVDataImporter,CSVDataImporter,validateCSVData,"Validate CSV data before
import",None,"[String]",Validation,public,No
CSVDataImporter,CSVDataImporter,getWorkerTaskSummary,"Get task count by
worker",None,"[String: Int]",Statistics,public,No
CSVDataImporter,CSVDataImporter,getBuildingTaskSummary,"Get task count by
building",None,"[String: Int]",Statistics,public,No
BuildingRepository,BuildingRepository,initializeSQLiteManager,"Setup database
connection",None,Void,Initialization,private,Yes
BuildingRepository,BuildingRepository,allBuildings,"Get all buildings
property",None,"[FSBuilding]",Building Data,public,Yes
BuildingRepository,BuildingRepository,building,"Get building by ID","withId:
String",FSBuilding?,Building Data,public,Yes
BuildingRepository,BuildingRepository,id,"Get building ID by name","forName:
String",String?,Building Data,public,Yes
BuildingRepository,BuildingRepository,name,"Get building name by ID","forId:
String",String,Building Data,public,Yes
BuildingRepository,BuildingRepository,getFirstNBuildings,"Get first N buildings","n:
Int","[FSBuilding]",Building Data,public,Yes
BuildingRepository,BuildingRepository,assignments,"Get worker assignments","buildingId:
String","[WorkerAssignmentRec]",Worker Management,public,Yes
BuildingRepository,BuildingRepository,routineTasks,"Get routine tasks","buildingId:
String","[String]",Task Management,public,Yes
BuildingRepository,BuildingRepository,searchBuildings,"Search buildings by
query","query: String","[FSBuilding]",Search,public,Yes
BuildingRepository,BuildingRepository,buildings,"Get buildings within radius","radius:
Double, coordinate: (lat: Double, lon: Double)","[FSBuilding]",Location,public,Yes
BuildingRepository,BuildingRepository,updateAssignment,"Update worker
assignment","buildingId: String, workerId: Int64, workerName: String, shift: String?,
specialRole: String?",Void,Worker Management,public,Yes
BuildingRepository,BuildingRepository,addRoutineTask,"Add routine task to
building","buildingId: String, task: String",Void,Task Management,public,Yes
BuildingRepository,BuildingRepository,getBuildingName,"Legacy sync name getter","forId:
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String",String,Building Data,public,No
BuildingRepository,BuildingRepository,getAssignedWorkersFormatted,"Get formatted worker list","buildingId: String",String,Worker Management,public,Yes
BuildingRepository,BuildingRepository,createBuildings,"Create hardcoded buildings",None,"[FSBuilding]",Initialization,private static,No
BuildingRepository,BuildingRepository,getHardcodedAssignments,"Get default assignments","buildingId: String","[WorkerAssignmentRec]",Worker Management,private,No
BuildingRepository,BuildingRepository,getHardcodedRoutineTasks,"Get default routine tasks","buildingId: String","[String]",Task Management,private,No
BuildingRepository,BuildingRepository,loadAssignmentsFromDatabase,"Load all assignments from DB",None,Void,Database,private,Yes
BuildingRepository,BuildingRepository,loadAssignmentsFromDB,"Load building assignments","buildingId: String","[WorkerAssignmentRec]?",Database,private,Yes
BuildingRepository,BuildingRepository,loadRoutineTasksFromDatabase,"Load all routine tasks from DB",None,Void,Database,private,Yes
BuildingRepository,BuildingRepository,loadRoutineTasksFromDB,"Load building routine tasks","buildingId: String","[String]?",Database,private,Yes
BuildingRepository,BuildingRepository,saveAssignmentToDB,"Save assignment to database","assignment: WorkerAssignmentRec",Void,Database,private,Yes
BuildingRepository,BuildingRepository,saveRoutineTaskToDB,"Save routine task to database","buildingId: String, task: String",Void,Database,private,Yes
BuildingRepository,BuildingRepository,haversineDistance,"Calculate distance between coords","lat1: Double, lon1: Double, lat2: Double, lon2: Double",Double,Utility,private,No
FrancoSphere,NamedCoordinate,allBuildings,"Get all buildings static data",None,"[NamedCoordinate]",Building Data,public static,No
FrancoSphere,NamedCoordinate,getBuilding,"Get building by ID","byId: String",NamedCoordinate?,Building Data,public static,No
FrancoSphere,NamedCoordinate,getBuildingId,"Get building ID by name","byName: String",String?,Building Data,public static,No
FrancoSphere,WeatherData,formattedTemperature,"Get formatted temperature",None,String,Display,public,No
FrancoSphere,WeatherData,formattedHighLow,"Get formatted high/low temps",None,String,Display,public,No
FrancoSphere,WeatherData,outdoorWorkRisk,"Calculate outdoor work risk",None,OutdoorWorkRisk,Weather Analysis,public,No
FrancoSphere,MaintenanceTask,nextOccurrence,"Calculate next occurrence date",None,Date?,Scheduling,public,No
FrancoSphere,MaintenanceTask,createNextOccurrence,"Create next recurring task",None,MaintenanceTask?,Task Creation,public,No
FrancoSphere,TaskCompletionRecord,formattedCompletionDate,"Format completion date",None,String,Display,public,No
FrancoSphere,TaskCompletionRecord,formattedVerificationDate,"Format verification date",None,String?,Display,public,No
FrancoSphere,MaintenanceRecord,formattedCompletionDate,"Format completion date",None,String,Display,public,No
FrancoSphere,WorkerProfile,allWorkers,"Get all workers static data",None,"[WorkerProfile]",Worker Data,public static,No
FrancoSphere,WorkerProfile,getWorker,"Get worker by ID","byId: String",WorkerProfile?,Worker Data,public static,No
FrancoSphere,WorkerProfile,getWorkerId,"Get worker ID by name","byName: String",String?,Worker Data,public static,No
FrancoSphere,TaskTemplate,allTaskTemplates,"Get all task templates",None,"[TaskTemplate]",Task Templates,public static,No

FrancoSphere,TaskTemplate,createTask,"Create task from template","buildingID: String, dueDate: Date",MaintenanceTask,Task Creation,public,No
FrancoSphere,CSVDataMapper,getBuildingID,"Get building ID from name","fromName: String",String?,Data Mapping,public static,No
FrancoSphere,CSVDataMapper,getWorkerID,"Get worker ID from name","fromName: String",String?,Data Mapping,public static,No
FrancoSphere,CSVDataMapper,createTaskFromCSVData,"Create task from CSV data","taskName: String, buildingName: String, workerName: String, category: String, skillLevel: String, recurrence: String, dueDate: Date",MaintenanceTask?,Data Import,public static,No
FrancoSphere,CSVDataMapper,validateCSVData,"Validate CSV data fields","category: String, urgency: String, recurrence: String, skillLevel: String","[String]",Validation,public static,No
FrancoSphere,InventoryItem,shouldReorder,"Check if reorder needed",None,Bool,Inventory,public,No
FrancoSphere,InventoryItem,stockPercentage,"Calculate stock percentage",None,Double,Inventory,public,No
FrancoSphere,InventoryItem,statusText,"Get stock status text",None,String,Display,public,No
FrancoSphere,InventoryItem,statusColor,"Get stock status color",None,Color,Display,public,No
FrancoSphere,InventoryUsageRecord,formattedDate,"Format usage date",None,String,Display,public,No
FrancoSphere,InventoryRestockRequest,formattedRequestDate,"Format request date",None,String,Display,public,No
FrancoSphere,InventoryRestockRequest,formattedApprovalDate,"Format approval date",None,String?,Display,public,No
WorkerRoutineViewModel,WorkerRoutineViewModel,loadWorkerData,"Load all worker routine data",None,Void,Data Loading,public,Yes
WorkerRoutineViewModel,WorkerRoutineViewModel,loadRoutineTasksByBuilding,"Load tasks grouped by building","workerId: String","[String: [MaintenanceTask]]",Data Loading,private,Yes
WorkerRoutineViewModel,WorkerRoutineViewModel,loadScheduleConflicts,"Load schedule conflicts","workerId: String",Void,Schedule Management,private,Yes
WorkerRoutineViewModel,WorkerRoutineViewModel,tasksForBuilding,"Get tasks for specific building","buildingId: String","[MaintenanceTask]",Task Retrieval,public,No
WorkerRoutineViewModel,WorkerRoutineViewModel,optimizeRoute,"Optimize worker route",None,Void,Route Optimization,public,Yes
WorkerRoutineManager,WorkerRoutineManager,getWorkerRoutineSummary,"Get worker routine summary","workerId: String",WorkerRoutineSummary,Worker Management,public,Yes
WorkerRoutineManager,WorkerRoutineManager,getDailyRoute,"Get daily route for worker","workerId: String, date: Date",WorkerDailyRoute,Route Planning,public,Yes
WorkerRoutineManager,WorkerRoutineManager,suggestOptimizations,"Suggest route optimizations","route: WorkerDailyRoute","[RouteOptimization]",Route Optimization,public,Yes
WorkerRoutineManager,WorkerRoutineManager,detectScheduleConflicts,"Detect schedule conflicts","stops: [RouteStop], date: Date","[ScheduleConflict]",Schedule Management,public,Yes
FrancoTaskTemplate,FrancoTaskTemplate,createTask,"Create task from template","buildingID: String, dueDate: Date",MaintenanceTask,Task Creation,public,No
Extension,Data,sha256Hash,"Calculate SHA256 hash",None,String,Cryptography,public,No
Extension,Date,iso8601String,"Convert to ISO8601 string",None,String,Date Formatting,public,No
Extension,Task,synchronousResult,"Get sync result from async task",None,Success?,Concurrency,public,No

Extension,View,glassButton,"Apply glass button styling",None,some View,UI Styling,public,No
Migration,V001_InitialSchema,up,"Create initial schema","db: Connection",Void,Database Migration,public,No
Migration,V001_InitialSchema,down,"Rollback initial schema","db: Connection",Void,Database Migration,public,No
Migration,V002_AddPasswordHash,up,"Add password hash column","db: Connection",Void,Database Migration,public,No
Migration,V002_AddPasswordHash,down,"Rollback password hash","db: Connection",Void,Database Migration,public,No
Migration,V003_AddWeatherCache,up,"Create weather cache table","db: Connection",Void,Database Migration,public,No
Migration,V003_AddWeatherCache,down,"Drop weather cache table","db: Connection",Void,Database Migration,public,No
Migration,V004_AddOutboxTables,up,"Create outbox tables","db: Connection",Void,Database Migration,public,No
Migration,V004_AddOutboxTables,down,"Drop outbox tables","db: Connection",Void,Database Migration,public,No
Migration,V005_AddFeatureFlags,up,"Create feature flags table","db: Connection",Void,Database Migration,public,No
Migration,V005_AddFeatureFlags,down,"Drop feature flags table","db: Connection",Void,Database Migration,public,No
Migration,V006_AddTelemetry,up,"Create telemetry table","db: Connection",Void,Database Migration,public,No
Migration,V006_AddTelemetry,down,"Drop telemetry table","db: Connection",Void,Database Migration,public,No
Migration,V007_AddIndexes,up,"Add performance indexes","db: Connection",Void,Database Migration,public,No
Migration,V007_AddIndexes,down,"Drop performance indexes","db: Connection",Void,Database Migration,public,No
Migration,V008_PhotoPathMigration,up,"Create photo uploads table","db: Connection",Void,Database Migration,public,No
Migration,V008_PhotoPathMigration,down,"Drop photo uploads table","db: Connection",Void,Database Migration,public,No
Migration,V009_BuildingNameMapping,up,"Create building mappings","db: Connection",Void,Database Migration,public,No
Migration,V009_BuildingNameMapping,down,"Drop building mappings","db: Connection",Void,Database Migration,public,No
Migration,V010_TaskTemplateData,up,"Create task templates","db: Connection",Void,Database Migration,public,No
Migration,V010_TaskTemplateData,down,"Drop task templates","db: Connection",Void,Database Migration,public,No
Migration,V011_BuildingInventory,up,"Create inventory tables","db: Connection",Void,Database Migration,public,No
Migration,V011_BuildingInventory,down,"Drop inventory tables","db: Connection",Void,Database Migration,public,No