

Main

```
Scanner scanner
boolean running
FinanceModule financeModule
HealthModule healthModule
LearningModule learningModule
RelationshipModule relationshipModule
DashboardService dashboardService
CsvManager csvManager
```

```
main(String[] args): void
initialize(): void
showMainMenu(): void
handleChoice(int): void
loadAllData(): void
saveAllData(): void
exit(): void
```

MODULES LAYER

FinanceModule
FinanceService ExpenseView BudgetView
run(): void showMenu() addExpense viewBudget analyze()

HealthModule
HealthService WorkoutView MealView
run(): void showMenu() addWorkout trackMeal analyze()

LearningModule
LearningService StudyView BookView
run(): void showMenu() addSession trackBook analyze()

RelationshipModule
RelationshipService contactView InteractionView
run(): void showMenu() addContact logInteraction analyze()

DASHBOARD INTEGRATION LAYER

DashboardService
FinanceService financeService HealthService healthService LearningService learningService RelationshipService relationshipService PatternAnalyzer patternAnalyzer
showlifeOverview(): void calculateLifeBalanceScore(): int findCorrelations(): Map<String, Double> generateWeeklyReport(): String generateMonthlyReport(): String showTrends(): void exportAllData(): void

SERVICE LAYER

FinanceService
List<Expense> List<Income> List<Budget>
addExpense() getMonthlySpending() calculateSavingsRate() predictNextMonth() getBudgetStatus() findSpendingPatterns()

HealthService
List<Workout> List<Meal> List<Sleep> List<Mood>
addWorkout() getWorkoutsThisWeek() calculateAverageSleep() trackWeightProgress() suggestWorkout()

LearningService
List<StudySession> List<Book> List<Skill>
addSession() getStudyHours() caluclateComprehension() identifyWeakSpots() recommendNextTopic()

RelationshipService
List<Contact> List<Interactions>
addContact() logInteraction() getContactsByFrequency() calculateStrength() suggestFollowups()

PatternAnalyzer
List<?> data
findTrends() calculateCorrelation() predictNest() identifyAnomalies()

MODEL LAYER

Expense	Income	Budget	Workout	Meal
<ul style="list-style-type: none"> - String: id - double: amount - Category: category - Localdate: date - String description 	<ul style="list-style-type: none"> - String: id - double: amount - String source - LocalDate date - boolean recur 	<ul style="list-style-type: none"> - String: id - String: name - double: limit - double spent - String period 	<ul style="list-style-type: none"> - String: id - String: exercise - int: duration - int sets - int reps - LocalDate date 	<ul style="list-style-type: none"> - String: id - String: name - int: calories - MealType type - LocalDateTime date
Sleep	StudySession	Measurement	Mood	Book
<ul style="list-style-type: none"> - String: id - double: hours - int: quality - LocalDate date - String notes 	<ul style="list-style-type: none"> - String: id - String subject - String: topic - int duration - int comprehension - LocalDateTime 	<ul style="list-style-type: none"> - String: id - double: weight - double: bodyFat - LocalDate date 	<ul style="list-style-type: none"> - String: id - MoodType: mood - int: energy - int stress - LocalDateTime 	<ul style="list-style-type: none"> - String: id - String :title - String: author - int pages - int pagesRead - int rating - LocalDate start - Localdate finish
Contact	Skill		Interaction	
<ul style="list-style-type: none"> - String: id - String name - String: email - String phone - LocalDate Birthday - String category 	<ul style="list-style-type: none"> - String: id - String: name - int: level - int hours 		<ul style="list-style-type: none"> - String: id - String: interaction - InteractionType: type - LocalDateTime - String notes 	

ENUMS LAYER

CategoryType
FOOD
TRANSPORT
ENTERTAINment
UTILITIES
SHOPPING
HEALTH
EDUCATION
SAVINGS

MealType
BREAKFAST
LUNCH
DINNER
SNACK

MoodType
HAPPY
SAD
ANGRY
TIRED
STRESSED
ENERGETIC
CALM

Priority
LOW
MEDIUM
HIGH
CRITICAL

PaymentMethod
CASH
CREDIT_CARD
DEBIT_CARD
BANK_TRANSFER

InteractionType
CALL
TEXT
EMAIL
MEETING
SOCIAL
GIFT

WeekDay
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
SUNDAY

Domain
FINANCE
HEALTH
LEARNING
RELATIONSHIP

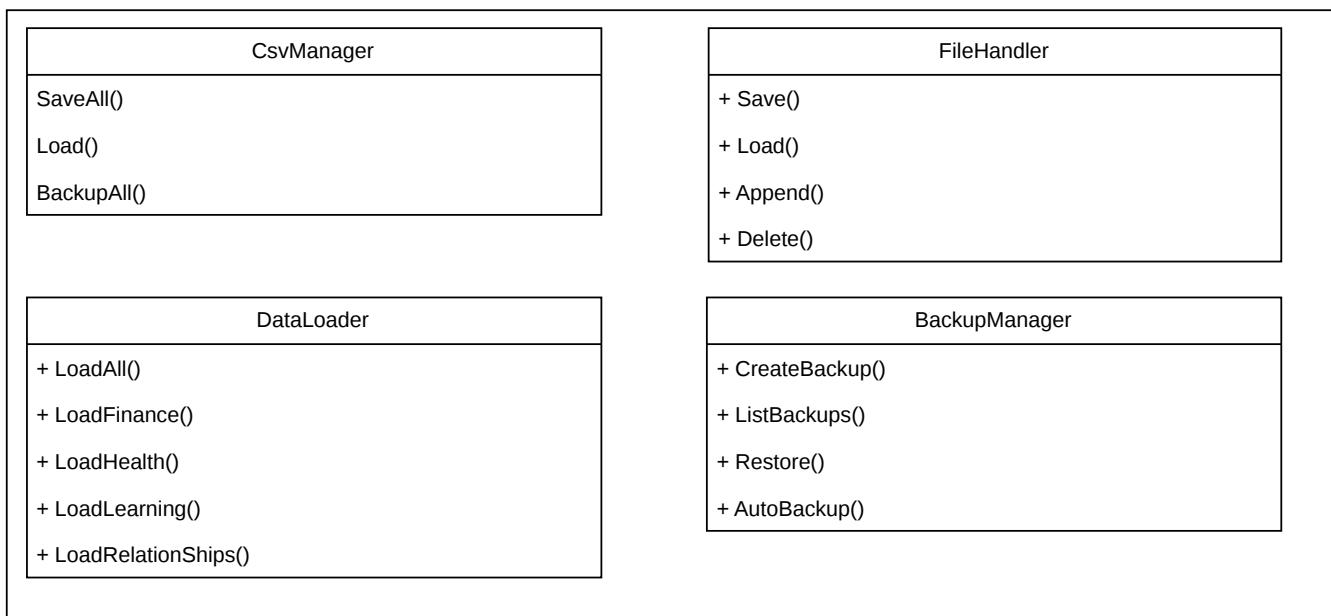
TEST LAYER (JUnit)

FinanceTest	HealthTest	LearningTest	RelationshipTest
TestAddExpense() TestCalculateSavingsRate() TestPredictNextMonth() TestBudgetStatus() TestFindPatterns()	TestAddWorkout() TestGetWorkoutThisWeek() TestAverageSleep() TestTrackWeight() TestSuggestedWorkout()	testAddSession() TestCalulateComprehension() TestIdentifyWeakSpots() TestRecommendedNextTopic	TestAddContact() TestLogInteraction() TestCalculateStrength() TestgetFollowUps()
ServiceTest	ModelTest	Dashboardtest	PersistenceTest
TestServiceIntegration() TestDataFlow() TestErrorHandling()	testExpenseCreation() TestWorkoutValidation() TestStudySession() TestContactCreation()	TestLifeBalanceScore() TestFindCorrelations() TestWeeklyReport()	TestSaveLoad() TestBackupRestore() TestFileNotFound() TestCorruptData()
ValidatorTest			
TestValidateAmount() TestValidateDate() TestValidateEmail()			

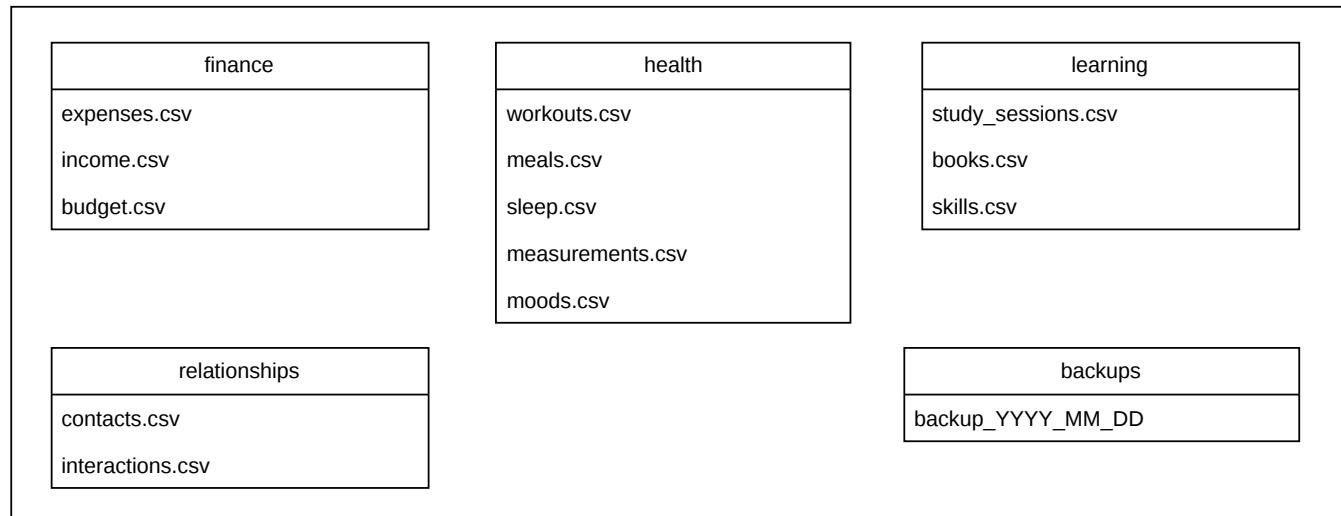
UTILS LAYER

ConsoleColors	ConsoleTheme	Validatiotor
RED GREEN BLUE YELLOW ORANGE PURPLE CYAN WHITE BLACK RESET	+ TITLE + SUCCESS + ERROR + WARNING + format()	ValidationFinance ValidationHealth ValidationLearning ValidationRelationship

PERSISTENCE LAYER



DATA LAYER



EXCEPTIONS LAYER

