

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	HealthModule	LearningModule	RelationshipModule
FinanceService ExpenseView BudgetView	HealthService WorkoutView MealView	LearningService StudyView BookView	RelationshipService contactView InteractionView
run(): void showMenu() addExpense viewBudget analyze()	run(): void showMenu() addWorkout trackMeal analyze()	run(): void showMenu() addSession trackBook analyze()	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

- String: id
- double: amount
- Category: category
- Localdate: date
- String description

Income

- String: id
- double: amount
- String source
- LocalDate date
- boolean recur

Budget

- String: id
- String: name
- double: limit
- double spent
- String period

Workout

- String: id
- String: exercise
- int: duration
- int sets
- int reps
- LocalDate date

Meal

- String: id
- String: name
- int: calories
- MealType type
- LocalDateTime

Sleep

- String: id
- double: hours
- int: quality
- LocalDate date
- String notes

StudySession

- String: id
- String subject
- String: topic
- int duration
- int comprehension
- LocalDateTime

Measurement

- String: id
- double: weight
- double: bodyFat
- LocalDate date

Mood

- String: id
- MoodType: mood
- int: energy
- int stress
- LocalDateTime

Book

- String: id
- String :itle
- String: author
- int pages
- int pagesRead
- int rating
- LocalDate start
- Localdate finish

Contact

- String: id
- String name
- String: email
- String phone
- LocalDate Birthday
- String category

Skill

- String: id
- String: name
- int: level
- int hours

Interaction

- 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
DRIDAY
SATURDAY
SUNDAY

Domain
FINANCE
HEALTH
LEARNING
RELATIONSHIP

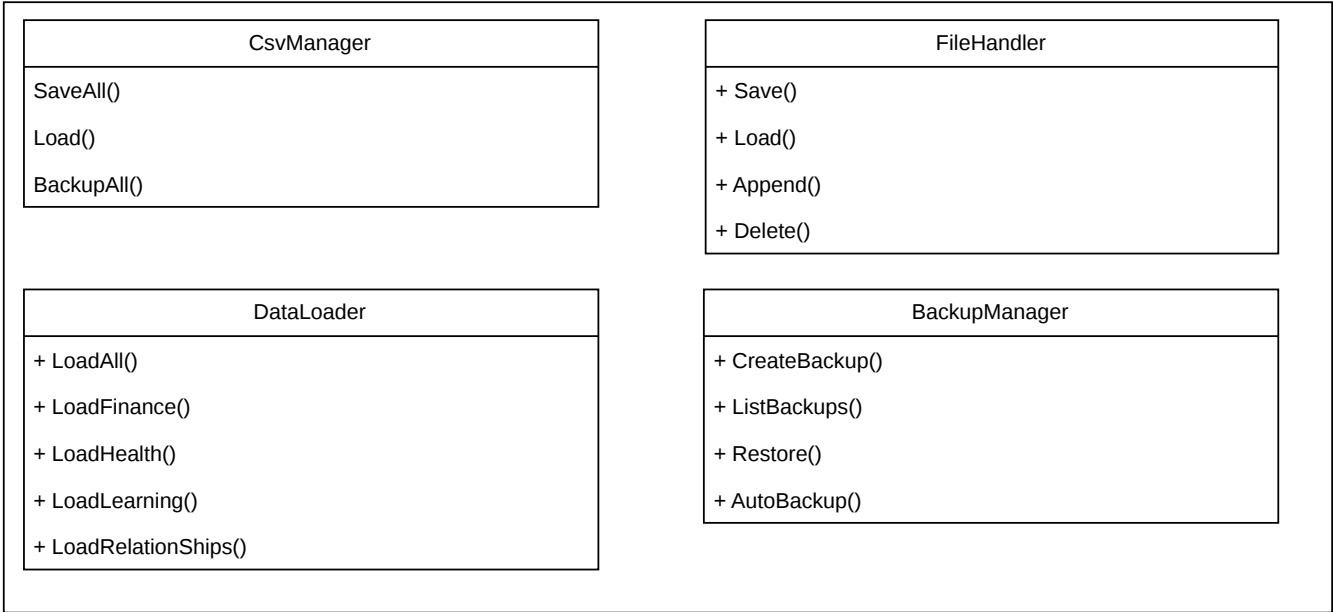
TEST LAYER (JUnit)

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

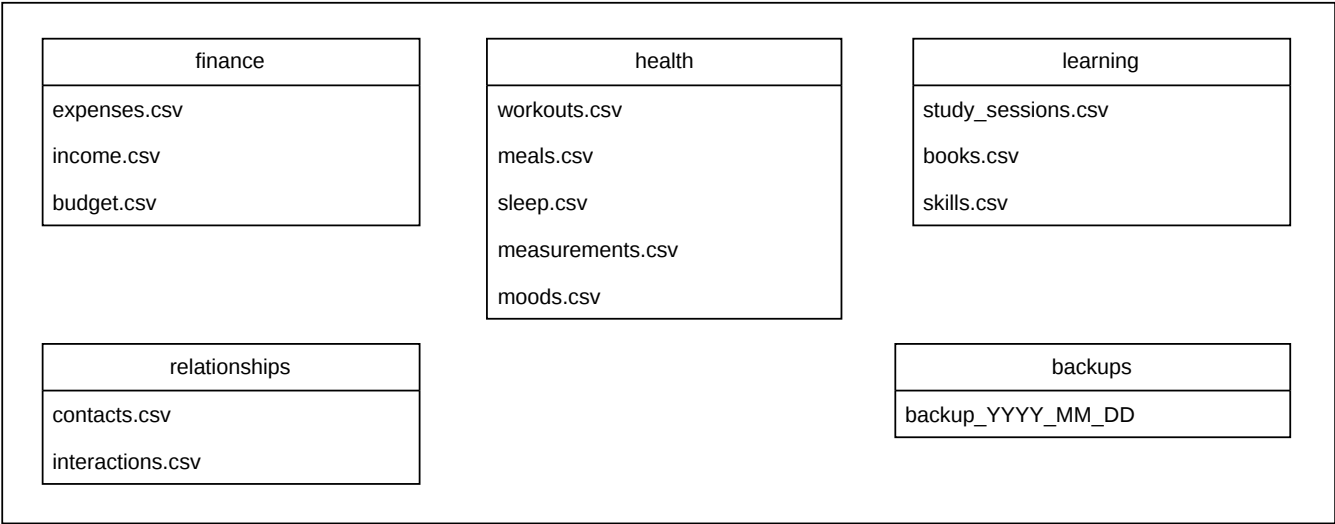
UTILS LAYER

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



DATA LAYER



EXCEPTIONS LAYER

