



## Taluk Salasite

### User

- date de pecont
- informațiile personale: memorate  
criptat
- hash la parola

### Expenses

- fiecare "expense" al fiecărui user
- tine categoria la fiecare expense entry
- FK la persoana care a făcut achiziția
- categorii: întreținere - maintenance  
mâncare - food  
distrație - fun  
școală - school  
personale - personal

## USERS

id : int (autoincrement), PK  
username : string, Unique, NN  
password-hash : string, NN  
encrypted-first-name : string, NN  
encrypted-last-name : string, NN



## EXPENSES

id : int (autoincrement), PK  
user-id : int, FK  
amount : decimal, NN  
category : string in [maintenance, food, ~~entertainment~~  
fun, school, personal], NN  
description : string  
expense-date : NN

Setat docker pt baza de date;  
port 3307; my-sql db: expense  
tracker

AUTH Service : 8081

Encryption Service : 8082

Expense Service : 8083

Report Service : 8084

Class Diagram → Encryption Service

EncryptionService  
- encryptor : Encryptor  
+ encrypt (data : String)  
+ decrypt (data : String)

EncryptionConfig  
- secretKey : String  
+ encryptor() : Encryptor

interface Encryptor  
+ encrypt (data : String) : String  
+ decrypt (data : String) : String

AES Encryptor  
- secretKey : SecretKeySpec  
+ encrypt (data : String) : String  
+ decrypt (data : String) : String

(A) EncryptionController

- + encrypt Endpoint (data : String) : Response Entity
- + decrypt Endpoint (data : String) : Response Entity

# Expense Service

## Expense Repository

- + save (expense: Expense): Expense?
- + update (expense): Expense?
- + find By id (expense id: int): Expense?
- + find By UserId (user id: int): List<Expense>
- + delete By id (expense id: int): Bool

## ExpenseRepositoryImpl

la fel

## Expense Controller

- + add Expense (Expense Request): Response Entity < Json Response >
- + update Expense (expense id: int, expense Request: Expense Request): Response Entity < Json Resp >
- + get Expense (expense id: int): Response Entity < Json Resp >
- + get Expenses (user id: int): " "
- + delete Expense (expense id: int): " "

## Expense Service

- expense Repository: IExpenseRepository
- + add Expense (Expense Request: Expense Req): Expense
- + update Expense (Expense Request, expense id): Expense
- + get Expense (expense id: int): Expense
- + get Expenses (user id: int): List<Expense>
- + delete Expense (expense id): Boolean

private real data Source: DataSource

## Json Response

- + success: Boolean
- + message: String
- + data: ?

## Expense Request

- + user id: int
- + category: String
- + amount: Double
- + expense Date: Date

## Expense

- + id: int
- + userID: int
- + category: String
- + amount: Double
- + description: String?
- + expense Date: Date?



User -> data

- + id: Int
- + username: String
- + password Hash: String
- + encrypted FirstName: String
- + encrypted Last Name: String

Ⓢ persista

anverwende  
↓  
doos de encryptie  
de Auth

## Auth Controller

- + signup (request: SignupRequest): ResponseEntity
- + login (request: LoginRequest): ResponseEntity

## Auth Service

- encryptionService: IEncryptionService
- passwordHasher: IPasswordHasher
- userRepository: IUserRepository

+ signUp (username, password, first-name, last-name): ResponseEntity

+ login (username, password: String): ResponseEntity

String

JsonResponse

Ⓢ IEncryptionService

- + encryptSensitiveData (data: String): String

AES Encryption

- + encryptSensitiveData (data: String): String

Ⓢ IPasswordHasher

- + hash (username, password: String): String

SHA256 Password Hasher

- + hash (username, password: String): String

Ⓢ IUserRepository

- + findByUsername (username: String): User?
- + save (user: User): User

Json Response

- val success: Boolean
- val message: String
- val data: Any?

private val dataSource

User Repository Impl

- + findByUsername (username: String): User?
- + save (user: User): User



→ problema pasată la ExpenseService : flow

