\_author\_ = "7985984, Saghdaou, 8441241, Fischer"

```
# JSON_FILE: str
- data: dict
- users: Dict[str, User]

+ __init__()
+ load_data() → dict
+ save_data() → None
+ load_users() → Dict[str, User]

+ add_user(username: str, password: str, role: str, accounts: List[str] = None) → str
+ edit_user(username: str, new_username: str = None, new_password: str = None, new_role: str = None, new_accounts: List[str] = None) → str
+ delete_user(username: str) → str
+ list_users() → str
```

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## Account

- + department: str
- + balance: float
- + transactions: List[dict]
  - + to\_dict() → dict
  - + \_\_repr\_\_() → str

## **Transaction**

- + account: str
- + type: str
- + amount: float
- + source: str
- + note: str
- + target\_account: str = None
  - + date: str
  - + to\_dict() → dict
  - + \_\_repr\_\_() → str

## + \_\_init\_\_()

+ load\_data() → dict

AccountManager

# JSON\_FILE: str

- data: dict

- + save\_data() → None
- + create\_account(name: str) → Dict
- + delete\_account(name: str) → Dict
- + deposit(name: str, amount: float, source: str, note: str = "") → Dict
  - + withdraw(name: str, amount: float, note: str = "") → Dict
- + transfer(from\_account: str, to\_account: str, amount: float, note: str = "") → Dict
  - + get\_transaction\_history(name: str) → List[dict]
  - + export\_account\_to\_txt(name: str) → None
    - + get\_all\_accounts\_summary() → Dict

## User

- + username: string
- + password: string
  - + role: string
- + accounts: List[str]
- + has\_access\_to(self, account\_name: str): bool
  - + to\_dict(self): Dict[str, str | List[str]]