```
# 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
```

## 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

# AccountManager

# JSON\_FILE: str

- data: dict

+ \_\_init\_\_()

+ load\_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

## AdminDashboard

+ root: tk.Tk

- users: Dict[str, dict]

- accounts: Dict[str, dict]

+ \_\_init\_\_(root: tk.Tk) : None

+ manage\_account() : None

+ add\_account(): None

+ save\_account(name\_entry: tk.Entry, start\_saldo\_entry: tk.Entry) : None

+ show\_account(): None

+ manage\_users() : None

+ show\_user() : None

+ add\_user() : None

+ save\_user(username\_entry: tk.Entry, password\_entry: tk.Entry, role\_entry: tk.Entry): None

+ export\_data() : None

+ clear\_frame() : None

+ logout(): None

## TreasurerDashboard

- + root: tk.Tk
- + \_\_init\_\_(root: tk.Tk) → None
- + deposit\_money() → None
- + withdraw\_money() → None
- + transfer\_money() → None
- + show\_transactions() → None
  - + logout() → None

### 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]]

## FinanceDashboard

+ root: tk.Tk

+ \_\_init\_\_(root: tk.Tk) → None

+ view\_overview() → None

+ view\_account\_history(account\_name: str) → None

+ logout() → None