main **EmailSender** - gui: MainGui* - server_address: std::string - port: int + main(): int - sender_adress: std::string - recipient_adress: std::string subject: std::string body: std::string + EmailSender(): void + ~EmailSender(): void + setSenderAdress(): void + setRecipientAddress(): void + setSubject(): void + setBody(): void MainGui + send(): void - mainGui: QDialog + isSent(): std::bool const - AccountButton: QPushButton - CalculatorButton: QPushButton - CreditsButton: QPushButton - StatisticsButton: QPushButton - logoutButton: QPushButton - SystemLabel: QLabel - bank: Bank& ClientManager clients: std::list<Client*> Bank - emailSender: EmailSender* - clientManager: ClientManager* + ClientManager() + ~ClientManager() + login(): void + updateClients(): void + logout(): void + verifyClient(): std::bool + registration(): void + readClientsFromFile(): void + writeClientsToFile(): void AccountGui CalculatorGui TransferGui StatisticsGui LoginGui - transferGui: QDialog - calculatorLabel: QLabel - accountGui: QDialog - statisticsGui: QDialog - loginButton: QPushButton - frame: QFrame - clearButton: QPushButton - frame: QFrame - registerButton: QPushButton - accountLabel: QLabel - fromComboBox: QComboBox - commisionInput: QLineEdit - frame: QFrame - balanceLabel: QLabel - passwordInput: QLineEdit - fromLabel: QLabel - commisionLabel: QLabel - accountNumberDisplay: QLineEdit - loginInput: QLineEdit - expensesLabel: QLabel - createScheduleButton: QPushButton onInput: QLineEdit - accountNumberLabel: QLabel - balanceDisplay: QLineEdit - loginWindow: QMainWindow Client - onLabel: QLabel dateEdit: QDateEdit - escapeButton: QPushButton - expensesDisplay: QLineEdit - menuBar: QMenuBar - sumInput: QLineEdit - financialPeriodInput: QLineEdit - statusBar: QStatusBar - sendTransferButton: QPushButton - profitLabel: QLabel - name: std::string sumLabel: QLabel - financialPeriodLabel: QLabel - sumDisplay: QLineEdit profitDisplay: QLineEdit - bank: Bank& titleEdit: QTextEdit - surname: std::string - investmentValueLabel: QLabel - statisticsLabel: QLabel - sumLabel: QLabel - date_of_birth: std::chrono::date - scrollArea: QScrollArea titleLabel: QLabel - investmentValueInput: QLineEdit - escapeButton: QPushButton toInput: QLineEdit - percentageInput: QLineEdit - scrollAreaWidgetContents: QWidget - stat: Stats& - email: std::string - toLabel: QLabel - percentageLabel: QLabel transferListView: QListView - pesel: int - sendButton: QPushButton - scheduleBox: QComboBox - transferLabel: QLabel - phone_number: std::string - transferLabel: QLabel - scheduleLabel: QLabel - typeAccountBox: QComboBox - accManager: AccountManager* - startDateLabel: QLabel transaction: Transaction& typeAccountLabel: QLabel - escapeButton: QPushButton - accounts: std::vector<BankAccount&> + Client() - credit: Credit& + ~Client() + setName(): void + setSurname(): void AccountManager + setDateOfBirth(): void - accounts: std::list<BankAccount*> + setEmail(): void + setPesel(): void + AccountManager() + setPhoneNumber(): void + ~AccountManager() + getName(): std::string + sendTransaction(): std::bool + getSurname(): std::string Transaction + addMoney(): std::bool + getDateOfBirth(): std::chrono::date + takeMoney(): std::bool + getEmail(): std::string # amount: double + saveTransfer(): void + getPesel(): int # reciver: std::string + calculateBalance(): double + getPhoneNumber(): std::string # sender_acc_num: int + calculateProfit(): double **♦—1———** # reciver_acc_num: int + calculateExpense(): double # title: std::string + readAccounts(): void + writeAccounts(): void + ~Transaction() BankAccount + Transaction() + getAmount(): double # account_number: int • getSender(): std::string # sum: double + getReciver(): std::string # isActive: std::bool # transactions: std::list<Transaction*> + getSenderAccNum(): int # calculator: Calculator* + getReciverAccNum(): int + getTitle(): std::string + BankAccount(): void + {virtual} setAmount() = 0: void + ~BankAccount(): void + {virtual} setSender() = 0: void + setAccountNumber(): void + {virtual} setReciver() = 0: void + setIsActive(): void + {virtual} setSenderAccNum() = 0: void Credit OutTransaction InTransaction + getAccountNumber(): int + {virtual} setReciverAccNum() = 0: void type: std::string + {virtual} getSum() = 0: double + {virtual} setTitle() = 0: void billing_period: std::string + getIsActive(): std::bool + {virtual} isOut() const = 0: std::bool - start_date: std::chrono::date + {virtual} getTransactionHistory(): - financial_period: int std::list<Transaction*> - investment_value: double + {virtual} withdraw() = 0: void SavingsAccount - percentage: double + {virtual} getType() const = 0: std::string + setAmount(): void - commision: double + setAmount(): void + setSender(): void - interest_rate: double + setSender(): void + setReciver(): void withdrawal_limit: int + setType(): void + setReciver(): void + setSenderAccNum(): void + setBillingPeriod(): void + setSenderAccNum(): void + setReciverAccNum(): void + setInterestRate(): void + setStartDate(): void + setReciverAccNum(): void + setWithdrawalLimit(): void + setTitle(): void + setFinancialPeriod(): void + setTitle(): void + getInterestRate(): double + isOut() const: std::bool + setInvestmentValue(): void + isOut() const: std::bool + getWithdrawalLimit(): double + setPercentage(): void + calculateInterest(): void + setCommision(): void + withdraw(): void + getBillingPeriod(): std::string + getSum(): double + getStartDate(): std::chrono::date + getType() const: std::string + getFinancialPeriod(): int <<interface>>Calculator + getInvestmentValue(): double + getPercentage(): double + getCommision(): double + {virtual} calculate() = 0: void + withdraw(): void + getSum(): double + getType() const: std::string InterestCalculator CreditCalculator

+ calculate(): void

+ calculate(): void

CreditCalculator

+ calculateDateOfPayment(): void

+ savePaymentSchedule(): void

+ calculateInstallment(): void