

## Pseudocode

MAIN PROGRAM:

Initialize accounts\_list as empty  
Initialize exchange\_rates with PHP as base currency

LOOP

Display Main Menu  
Prompt user for option

IF option == 1:  
    CALL register\_account()  
ELSE IF option == 2:  
    CALL deposit\_amount()  
ELSE IF option == 3:  
    CALL withdraw\_amount()  
ELSE IF option == 4:  
    CALL currency\_exchange()  
ELSE IF option == 5:  
    CALL record\_exchange\_rate()  
ELSE IF option == 6:  
    CALL show\_interest\_amount()  
ELSE:  
    Display "Invalid option"

Prompt user "Back to Main Menu? (Y/N)"  
IF user\_input == "N":  
    BREAK LOOP

END PROGRAM

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## Function Pseudocode and Purpose

### 1. register\_account()

**Purpose:** Register a new user account with a name and initial balance.

```
Function register_account():  
    Prompt for Account Name  
    Initialize account balance to 0  
    Store account in accounts_list  
    Display "Account registered successfully"  
End Function
```

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## 2. deposit\_amount()

**Purpose:** Add funds to a user's bank account.

```
Function deposit_amount():  
    Prompt for Account Name  
    IF account exists:  
        Display Current Balance  
        Prompt for Deposit Amount  
        Add Deposit Amount to Current Balance  
        Update account balance  
        Display Updated Balance  
    ELSE:  
        Display "Account not found"  
End Function
```

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## 3. withdraw\_amount()

**Purpose:** Withdraw funds from a user's bank account.

```
Function withdraw_amount():  
    Prompt for Account Name  
    IF account exists:  
        Display Current Balance  
        Prompt for Withdraw Amount  
        IF Withdraw Amount <= Current Balance:  
            Subtract Withdraw Amount from Current Balance  
            Update account balance  
            Display Updated Balance
```

```
        ELSE:
            Display "Insufficient funds"
    ELSE:
        Display "Account not found"
End Function
```

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#### 4. record\_exchange\_rate()

**Purpose:** Record or update the exchange rate of foreign currencies relative to PHP.

```
Function record_exchange_rate():
    Display list of currencies
    Prompt user to select currency
    Prompt user for exchange rate
    Update exchange_rates[currency]
    Display "Exchange rate updated"
End Function
```

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#### 5. currency\_exchange()

**Purpose:** Convert amount between different currencies using exchange rates.

```
Function currency_exchange():
    Display list of source currencies
    Prompt user for source currency
    Prompt user for source amount
    Display list of target currencies
    Prompt user for target currency
    Calculate exchanged amount using exchange_rates
    Display exchanged amount
End Function
```

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#### 6. show\_interest\_amount()

**Purpose:** Compute and display expected daily interest for a given number of days.

```
Function show_interest_amount():
    Prompt for Account Name
    IF account exists:
        Display Current Balance and Annual Interest Rate (5%)
        Prompt for number of days
        FOR day from 1 to number_of_days:
            daily_interest = (Current Balance) * (5% / 365)
            Current Balance += daily_interest
            Display day, daily_interest, Current Balance
    ELSE:
        Display "Account not found"
End Function
```

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## Additional Notes

- `accounts_list` can be an array of objects (or structs/records) with fields: `name`, `balance`, `currency`.
- `exchange_rates` can be a dictionary/map with currency codes as keys.
- All functions handle invalid inputs and non-existing accounts gracefully for good **user experience**.