Exercise 20:

### 1. ****Describe the Process Step by Step****

1. **Input deposit amount**: The user provides the initial deposit amount.
2. **Input interest rate**: The user provides the annual interest rate in percentage (e.g., 5% or 10%).
3. **Input deposit period**: The user provides the deposit period in months (e.g., 6 months, 12 months).
4. **Calculate the interest**:
   * Convert the annual interest rate to a decimal by dividing it by 100.
   * Adjust the interest for the deposit period by dividing the months by 12.
   * Multiply the deposit amount by the interest rate and the time factor.
5. **Calculate the total amount**:
   * Add the calculated interest to the deposit amount to get the total amount the depositor will receive.
6. **Output the results**:
   * Display the interest earned and the total amount after the deposit period.

### 2. ****Describe the Process Steps through Flowcharts****

A diagram of a graph

Description automatically generated

### 3. ****Describe the Process Steps through Pseudocode****

plaintext

START

// Step 1: Input the deposit amount

Input deposit\_amount

// Step 2: Input the annual interest rate (in percentage)

Input interest\_rate

// Step 3: Input the deposit period (in months)

Input deposit\_period

// Step 4: Calculate interest

// Convert interest rate to decimal by dividing by 100, and adjust for the number of months

interest = deposit\_amount \* (interest\_rate / 100) \* (deposit\_period / 12)

// Step 5: Calculate the total amount after the period

total\_amount = deposit\_amount + interest

// Step 6: Output the results

Print "Interest earned: ", interest

Print "Total amount after the period: ", total\_amount

END