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CpE11S1

PLD 007

Assignment 1.2

1. Design a pseudo code for computing the area of a rectangle. The formula for computing the area of a rectangle is  $A = \frac{1}{2} (b)(h)$ .

Begin

Let  $A = 0$ ,  $b = 0$ ,  $h = 0$

Display "Input the values for Base and Height"

Display "The Base"

Input  $b$

Display "The Height"

Input  $h$

$A = \frac{1}{2} b * h$

Output "The Area is",  $A$

End

2. Design a pseudo code for some common ATM machine transactions such as:
  - withdrawals
  - balance inquiries
  - fund transfer
  - PIN change

```
function main()

    display "Please Insert your Card"

while True do

    display "Enter your PIN:"

    userPIN = user_bank_input()

    if PIN validate (userPIN) then

        display "Choose a transaction:"

        display "1. Withdraw"

        display "2. Check Balance"

        display "3. Transfer Funds"

        display "4. Change PIN"

        display "5. Exit"

        transaction = User_bank_input()

    switch transaction do

        case 1:

            Withdraw()

        case 2:

            CheckBalance()
```

case 3:

TransferFunds()

case 4:

ChangePIN()

case 5:

display "Thank you, Goodbye!"

EXIT

default:

display "Invalid, Try again."

else

display "Incorrect PIN, Try again."

endif

endwhile

end function

function withdraw()

display "Enter amount to withdraw:"

amount = user\_bank\_input()

if amount <= user\_bank\_balance() then

update\_user\_bank\_balance (-amount)

```
        display "Successful Transaction."
    else
        display "Not enough funds."
    endif
end function
```

```
function CheckBalance()
    display "Your balance is: " + user_bank_balance()
end function
```

```
function TransferFunds()
    display "Enter recipient account number:"
    recipientAccount = user_bank_input()
    display "Enter desired amount to transfer:"
    amount = user_bank_input()

    if amount <= user_bank_balance() then
        update_user_account_balance (-amount)
        update_recipient_bank_balance(recipientAccount, amount)
        display "The funds transferred successfully."
    else
```

```
    display "Can' t proceed, not enough funds."
```

```
endif
```

```
end function
```

```
function ChangePIN()
```

```
    display "Enter new PIN:"
```

```
    NewPIN = user_bank_input()
```

```
    if NewPIN validated (NewPIN) then
```

```
        update_stored_PIN(NewPIN)
```

```
        display "PIN changed successfully."
```

```
    else
```

```
        display "Sorry, can't proceed, invalid PIN please try again."
```

```
    endif
```

```
end function
```

```
End
```