# **Award magical bonus pseudocode:**

**Start**

DISPLAY ” How many years have you been a customer?”

SET customerPeriod = get value

DISPLAY ” How many rentals have you rented this month?”

SET numberOfRentals = get value

IF customerPeriod < 5 AND numberOfRentals < 25 THEN

BEGIN IF

DISPLAY ” You do not qualify for the magical bonus”

END IF

ELSE IF 5 <= customerPeriod < 10 AND 25 <= numberOfRentals THEN

BEGIN ELSEIF

DISPLAY ” You qualify for 1 bronze tier book!”

END ELSEIF

ELSE IF 10 <= customerPeriod < 15 AND 50 <= numberOfRentals THEN

BEGIN ELSEIF

DISPLAY ” You qualify for 3 bronze and 1 silver tier books!”

END ELSEIF

IF 15 <= customerPeriod AND 75 <= numberOfRentals THEN

DISPLAY” You qualify for 5 bronze, 2 silver and 1 gold tier books!”

**End**

# **Award magical bonus IPO chart:**

|  |  |  |
| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| * Number of years as a customer * Number of movies rented for the month | 1. Prompt for number of years as a customer 2. Get Value 3. Prompt for number of rentals for the month 4. Get Value | * You have qualIFied for 1 bronze tier book! * You qualIFy for 3 bronze and 1 silver tier books! * You qualIFy for 5 bronze, 2 silver and 1 gold tier books! |

# **Identify Eligible Coupons Pseudo**

**Start**

PROMPT “Enter the Customer’s number of rentals”

SET numRentals = get value

SET reward = “”

IF numRentals > 10 AND numRentals <= 24 THEN

BEGIN IF

SET reward = “1 Reward rental”

END IF

ELSE IF numRentals > 24 AND numRentals <= 49 THEN

BEGIN ELSEIF

SET reward = “2 Reward rentals”

END ELSEIF

ELSE IF numRentals > 49 AND numRentals <= 74 THEN

BEGIN ELSEIF

SET reward = “4 Reward rentals”

END ELSEIF

ELSE

BEGIN ELSE

SET reward = “8 Reward rentals”

END ELSE

RETURN reward

**End**

# **Identify Eligible Coupons IPO table**

|  |  |  |
| --- | --- | --- |
| **Input** | **Processing** | **Output** |
| * Number of rentals from a customer. | 1. Prompt for number of rentals a customer made. 2. Get Value. 3. Determine which rental coupon the customer appropriately falls under. | * 1 Reward rental * 2 Reward Rentals * 4 Reward Rentals * 8 Reward Rentals |

# **THE Pseudo code:**

**Start**

SET spellTomes = 40

SET enchantedScrolls = 25

SET magicalNovels = 25

SET LIST customerNames

SET Dictionary magicBooks

DISPLAY “What would you like to do?

Enter the number to the corresponding option:

============================================

1. Add a new customer

2. Add a new book to the library

3. Take order.

============================================”

SET option = get value

SWITCH option

BEGIN SWITCH

CASE 1

SET newCustomer = “”

DISPLAY “What is the customer’s name?”

newCustomer = get value

IF newCustomer is in the list customerNames THEN

BEGIN IF

DISPLAY “This customer already exists.”

END IF

ELSE

BEGIN ELSE

ADD newCustomer to customerNames

DISPLAY “The new customer was added successfully.”

END ELSE

CASE 2

SET newBook = “”

SET category = “”

DISPLAY “What is the new book’s name?”

SET newBook = get value

IF magicBooks contains the Key newBook THEN

BEGIN IF

DISPLAY “This book is already in the library”

END IF

ELSE

BEGIN ELSE

DISPLAY “What category does this book fall under?”

SET category = get value

IF category = spell tomes OR enchanted scrolls OR magical novels THEN

BEGIN IF

ADD newBook and category to magicBooks

DISPLAY “newBook was successfully added.”

END IF

ELSE

BEGIN ELSE

DISPLAY “That is not a valid book category”

DISPLAY “Please try again”

END ELSE

CASE 3

DEFAULT

DISPLAY “That is not an available option”

END SWITCH

**End**