Cost of Play Logic Plan

Brian Veitch

Description: For this assignment, you will be providing the logic (plan) for the following program:

You are writing a program to sell tickets to the school play. If the person buying the tickets is a student, their price is $5.00 per ticket. If the person buying the tickets is a veteran, their price is $7.00 per ticket. If the person buying the ticket is a sponsor of the play, the price is $2.00 per ticket. If the person buying the ticket is a part of the general public, the price is $10.00.

**Data:**

Constants:

Student\_price = 5.00

Veteran\_price = 7.00

Show\_sponsor\_price = 2.00

Retiree\_price = 6.00

General\_public\_price = 10.00

Variables (Input from user)

ticket\_type: Int

1 = Student, 2 = Veteran, 3 = Sponsor, 4 = Retiree, 5 = General Public

Ticket\_price: Float (based on ticket type)

Num\_of\_tickets: Int

Variables (output to user)

Discount\_percent: Float

Cost\_before\_discount: Float

Cost\_after\_discount: Float

Price\_per\_ticket: Float

**Processing:**

1. User selects a ticket type. Set ticket\_price based on that. User enters in the number of tickets.

Cost before discount = ticket\_price \* num\_of\_tickets

2.Set discount\_percent based on the number of tickets

> 15 tickets, set discount\_percent to 0.20

>= 9 tickets, set discount\_percent to 0.15

>= 4 tickets, set discount\_percent to 0.10

Cost after discount = cost before discount \* (1 – discount\_percent)

1. Calculate price per ticket

price\_per\_ticket = cost after discount / num\_of\_tickets

**Output:**

Cost before discounts are applied: cost\_before\_discount

Cost after all discounts are applied: cost\_after\_discount

Your price is ${price\_per\_ticket} per ticket.