**Lab Exercises: 4**

1. **Income Tax Calculation**

Write a program that calculates income tax based on the annual income entered by the user. Use the following criteria:

* Income <= 2,50,000: No tax
* Income > 2,50,000 and <= 5,00,000: 5% tax
* Income > 5,00,000 and <= 10,00,000: 20% tax
* Income > 10,00,000: 30% tax
* Print the calculated tax amount.

1. **Discount on Shopping**

Write a program that calculates the final price of a product after applying a discount based on the price entered by the user:

* Price < 500: No discount
* Price >= 500 and < 1000: 10% discount
* Price >= 1000 and < 5000: 20% discount
* Price >= 5000: 30% discount
* Print the discounted price.

1. **Eligibility for Final Exam**

Write a program that takes the total number of classes and the number of classes attended by a student as input. Calculate the attendance percentage and check if the student is eligible for the final exam:

* 1. Attendance >= 75%: "Eligible for the final exam"
  2. Attendance < 75%: "Not eligible for the final exam"

1. **Age-Based Ticket Pricing**

* Write a program that calculates the ticket price for a theme park based on age:
  + Age <= 5: Free
  + Age > 5 and <= 18: ₹500
  + Age > 18 and <= 60: ₹1000
  + Age > 60: ₹700
* Print the ticket price.

1. **Loan Eligibility**

* Write a program that checks loan eligibility based on income and credit score:
  + Income >= ₹50,000 and credit score >= 750: "Loan approved"
  + Otherwise: "Loan not approved"

1. **Eligibility for Sports Competition**

* Write a program that checks if a person is eligible for a sports competition based on:
  + Age >= 10 and <= 25: Eligible
  + Age < 10 or Age > 25: Not eligible

1. **Hotel Room Booking Discount**

Write a program to calculate the discount on hotel room bookings based on the number of days booked:

* Days < 3: No discount
* Days >= 3 and < 7: 10% discount
* Days >= 7: 20% discount
* Take the daily room rate and the number of days as input, calculate the total price after discount, and print it.

1. **Grade Evaluation for Subjects**

Write a program that takes the marks of three subjects as input and prints the overall result:

* If marks in all three subjects >= 40: "Pass"
* If marks in one or more subjects < 40: "Fail"
* Additionally, if the student passes, calculate the percentage and print:
* Percentage >= 75: "Distinction"
* Percentage >= 60 and < 75: "First class"
* Percentage >= 40 and < 60: "Second class"