

Assignment # 01

Question 1: Customer Discount Tier System

Write a Python program that assigns a customer discount tier based on their loyalty points and purchase history.

Requirements:

- Ask the user for:
 - `loyalty_points` (int)
 - `is_frequent_buyer` (yes/no, convert to boolean)
- Use the following rules:
 - **Gold Tier:** `loyalty_points` > 2000
 - **Silver Tier:** `loyalty_points` between 1000 and 2000 (inclusive)
 - **Bronze Tier:** `loyalty_points` between 500 and 999
 - **Standard Tier:** below 500
- If the customer is a frequent buyer, upgrade them one tier higher (but not beyond Gold).
- Print the final tier and discount percentage:
 - Gold: 15%, Silver: 10%, Bronze: 5%, Standard: 0%

Example Output:

```
Enter loyalty points: 800
Are you a frequent buyer? (yes/no): yes
Customer Tier: Silver
Discount: 10%
```

Question 2: Smart Banking Service Recommender

Create a program that recommends banking services based on customer profile and financial behavior.

Requirements:

- Ask the user for:
 - age (int)
 - annual_income (float)
 - credit_score (int)
 - is_student (yes/no → boolean)
 - account_balance (float)
- Implement the following recommendation logic using **if-elif-else ladder** and **logical operators**:

Service Recommendations:

1. **Premium Banking**: $\text{credit_score} \geq 750$ AND $\text{annual_income} \geq 100000$
2. **Student Advantage**: is_student is True AND $\text{age} < 25$
3. **Credit Builder**: $\text{credit_score} < 650$ AND $\text{account_balance} \geq 5000$
4. **Wealth Management**: $\text{annual_income} \geq 150000$ OR $\text{account_balance} \geq 100000$
5. **Basic Banking**: All other customers

Special Conditions:

- If customer qualifies for multiple services, recommend **ALL** applicable services
- If customer is under 18, automatically recommend "**Youth Account**" and ignore all other recommendations
- Use **nested conditionals** to handle the age check first

Example Output:

Age: 22

Annual Income: 120000

Credit Score: 780

Are you a student? (yes/no): no

Account Balance: 150000

Recommended Services: Premium Banking, Wealth Management