

## Task - 2

### **User Data Validation & Text Analysis System**

You are developing a text processing module for an online application.

The system receives raw string inputs from users and must clean, validate, and analyze the data before storing it.

Given Data:

```
user_data = [  
    " Anu, anu@gmail.com , 21 ",  
    "Ravi ,ravi123gmail.com, 17",  
    " Suresh,suresh@gmail.com,25 ",  
    "Meena,meena@gmail,22",  
    ",invalid@gmail.com,30"  
]
```

**Tasks:**

#### **1. Data Cleaning**

- Remove extra spaces
- Split name, email, age
- Convert name to title case
- Convert email to lowercase

#### **2. Email Validation**

- One '@'

- At least one '.' after '@'
- Should not start or end with '@'

### **3. Age Validation**

- Convert age to integer
- Check eligibility ( $\geq 18$ )

### **4. Invalid Record Identification**

- Missing name
- Invalid email
- Invalid age

### **5. Summary Report**

- Total records
- Valid users
- Invalid users
- Eligible and underage users

### **6. Output Formatting**

Format:

Name: Anu | Email: anu@gmail.com | Age: 21

Constraints:

- Use only string methods
- No regex or external libraries

**Bonus Task:**

- Extract email domains
- Count users per domain