AATHMIGA M

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Conditional Statements

1. Calculate the discount applicable for "Pet shop" customers

a) If the customer is a Premium member then 20% discount is applicable on total bill value.

b) If the customer is a Gold member then 15% discount is applicable on total bill value.

c) If the customer is a Silver member then 10% discount is applicable on total bill value.

d) For all other customers the discount will be 5% of their total bill valued over 2000.

```python
def pet_shop(customer_type, bill):
    if customer_type == "premium":
        discount = 0.20 * bill
    elif customer_type == "gold":
        discount = 0.15 * bill
    elif customer_type == "silver":
        discount = 0.10 * bill
    else:
        discount = 0.05 * bill if bill > 2000 else 0
    return discount

customer_type = input("Enter customer type:")
bill = float(input("Enter total bill: "))

discount = pet_shop(customer_type, bill)
print("Discount:", discount)
```

```
Enter customer type:gold
Enter total bill: 6000
Discount: 900.0
```

2. Implement the following logic to select the mode of transport for dispatching Pet animals from our

"Pet shop" (DO NOT use logical operators)

a) If priority is not urgent and the weight is less than or equal to 5 Kg, dispatch by Bike.

b) If priority is not urgent and the weight is more than 5 Kg, select a lorry if the distance is less

Than or equal to 250 Km.

c) If the priority is urgent and distance is less than 50 Km and weight is less than 100 Kg,

Select a van

d) In all other cases, use a train

```
def transport(priority, weight, distance):
    if priority == "not urgent":
        if weight <= 5:
            return "Bike"
        elif weight > 5 and distance <= 250:
            return "Lorry"
    elif priority == "urgent":
        if distance < 50 and weight < 100:
            return "Van"
    return "Train"


priority = str(input("enter the priority:"))
weight = int(input("enter the weight:"))
distance = int(input("enter the distance:"))
print("Mode of Transport:",transport(priority, weight, distance))
```

```
enter the priority:urgent
enter the weight:50
enter the distance:70
Mode of Transport: Train
```

3. An employee is considered for on-site depending on these conditions

(i) An employee Should have Passport

(ii) Communication should be good

(iii) His training feedback should be good

(iv) Should be at-least 2years experienced.

(v) Age should be greater than or equal to 23.

Using above conditions, check if an employee is eligible to go to on-site or not.

```
def on_site(passport, communication, training_feedback, experience, age):
    if passport and communication == "good" and training_feedback == "good"
and experience >= 2 and age >= 23:
        return "Eligible"
    return "Not Eligible"

passport = True
communication = "good"
training_feedback = "good"
experience = 1
age = 25
print("Result:", on_site(passport, communication, training_feedback,
experience, age))
```

```
Result: Not Eligible
```

4. Calculate electricity bill for following constraints.

(i) If units exceeds 1000, then charge Rs.10/- per unit.

(ii) If units exceeds 500, then charge Rs.5/- per unit.

(iii) If units exceeds 200, then charge Rs.2/- per unit.

(iv) In other cases charge Rs.1/- per unit.

Looping Statements

```
def electricity(units):
    if units > 1000:
        bill = units * 10
    elif units > 500:
        bill = units * 5
    elif units > 200:
        bill = units * 2
    else:
        bill = units * 1
    return bill

units = int(input("enter the unit:"))
print("Electricity Bill:", electricity(units))
```

```
enter the unit:800
Electricity Bill: 4000
```

5. Display all the prime numbers between x and y

```
def prime(x, y):
    prime = []
    for num in range(x, y + 1):
        if num > 1:
            for i in range(2, int(num ** 0.5) + 1):
                if num % i == 0:
                    break
            else:
                prime.append(num)
    return prime

x = int(input("Enter the starting number x: "))
y = int(input("Enter the ending number y: "))
```

```
Enter the starting number x: 30
Enter the ending number y: 50
Prime numbers are: [31, 37, 41, 43, 47]
```

6. Accept a 5 digit decimal number as input and display the number in reverse order.

(Example: if input is 12345, then output must be 54321)

```
def reverse_number(num):
    return int(str(num)[::-1])
while True:
    num = input("Enter a 5-digit number: ")
    if num.isdigit() and len(num) == 5:
        num = int(num)
        break
    else:
        print("Invalid input! Please enter a 5-digit number.")
reversed_num = reverse_number(num)
print("Number reversed:", reversed_num)
```

```
Enter a 5-digit number: 56454
Reversed Number: 45465
```