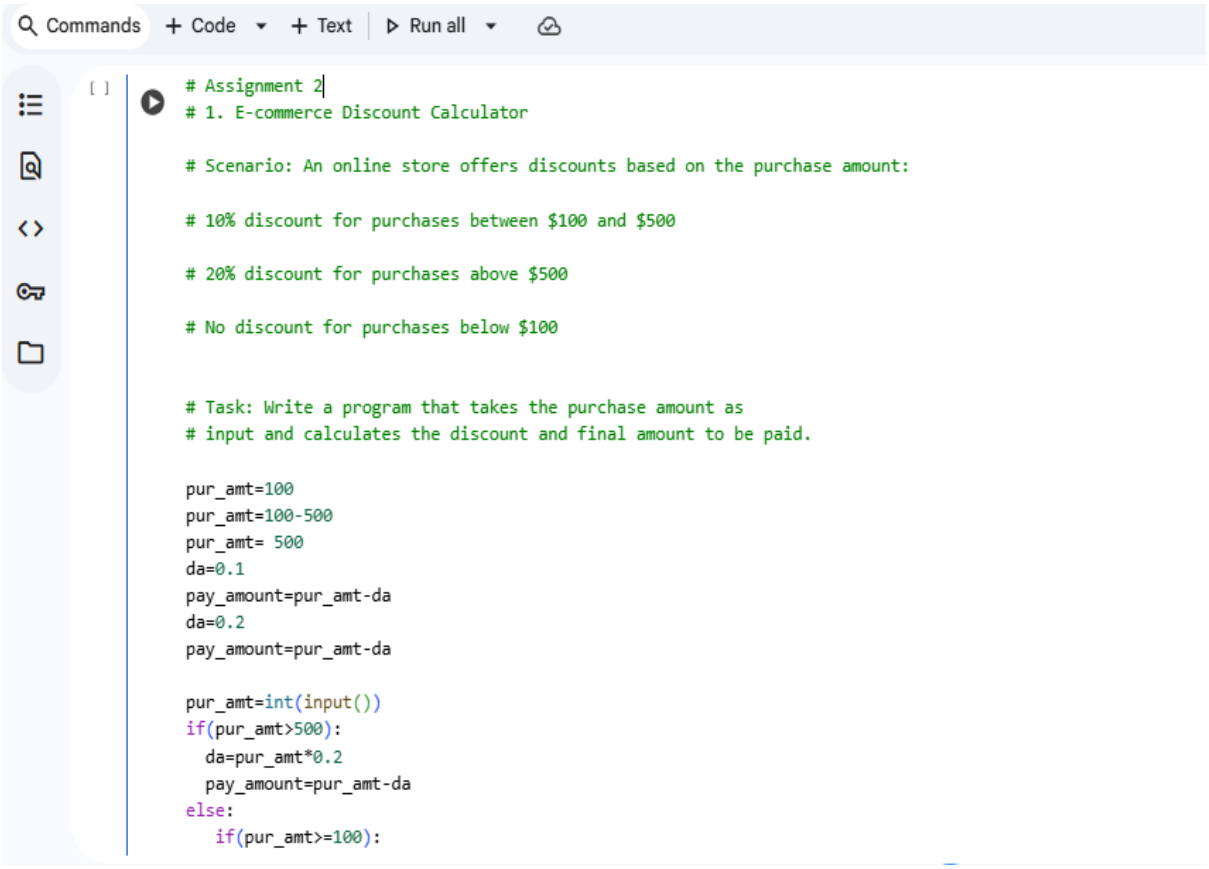
Assignment 2- If, else, elif Tool: Colab



```
# Assignment 2
# 1. E-commerce Discount Calculator

# Scenario: An online store offers discounts based on the purchase amount:

# 10% discount for purchases between $100 and $500

# 20% discount for purchases above $500

# No discount for purchases below $100


# Task: Write a program that takes the purchase amount as
# input and calculates the discount and final amount to be paid.

pur_amt=100
pur_amt=100-500
pur_amt= 500
da=0.1
pay_amount=pur_amt-da
da=0.2
pay_amount=pur_amt-da

pur_amt=int(input())
if(pur_amt>500):
  da=pur_amt*0.2
  pay_amount=pur_amt-da
else:
   if(pur_amt>=100):
```

```
   if(pur_amt>=100):
      da=pur_amt*0.1
      pay_amount=pur_amt-da
print(f"the discount amount:{da}\nthe pay amount is:{pay_amount}")
```

```
600
the discount amount:120.0
the pay amount is:480.0
```

Commands + Code + Text Run all

```
# 2. Traffic Light Simulation

# Scenario: Create a program that simulates a traffic light. The user inputs one of
# the colors: Red, Yellow, or Green. Based on the input:

# If the input is Red, display "Stop."

# If the input is Yellow, display "Ready to move."

# If the input is Green, display "Go."

# For invalid input, display "Invalid color."

color=input("Enter the traffic color (red, yellow, green)").lower()
if(color=="red"):
  print("Stop.")
elif(color=="yellow"):
  print("Ready to move.")
elif(color=="green"):
  print("Go.")
else:
  print("Invalid color.")
```

```
Enter the traffic color (red, yellow, green)green
Go.
```

Commands + Code + Text Run all

```
# 3. Grade Evaluation System

# Scenario: A school uses the following grading system:

# Marks >= 90: Grade A

# Marks >= 75 and < 90: Grade B

# Marks >= 50 and < 75: Grade C

# Marks < 50: Fail


# Task: Write a program that accepts the student's marks and displays their grade.


marks=int(input())
if(marks>=90):
  print("Grade A")
elif(marks>=75 and marks < 90):
  print("Grade B")
elif(marks>=50 and marks< 75):
  print("Grade c")
else:
  print("fail")
```

```
100
Grade A
```

```python
#4. Odd or Even and Divisibility Check

# Scenario: Write a program that takes an integer as input and checks:

# Whether the number is odd or even

# Whether the number is divisible by 5


# Display appropriate messages for both conditions.


n=int(input())
if(n%5==0):
  print("The number is divisible by 5.")
else:
  print("The number is not divisible by 5.")
```

```
66
The number is not divisible by 5.
```

```python
# 5. Password Strength Checker

# Scenario: Write a program that checks the strength of a password based on these rules:

# Length >= 8 characters: Strong

# Length between 5 and 7 characters: Medium

# Length < 5 characters: Weak

password=input("Enter your password: ")

if (len(password) >= 8):
  print("password strength: Strong")
elif (len(password)>=5 and len(password)<=7):
  print("password strength: Medium")
else:
  print("password strength: Weak")
```

```
Enter your password: 987654321
password strength: Strong
```

```python
# 6. Electricity Bill Calculator

# Scenario: An electricity company charges its customers as follows:

# First 100 units: $0.5 per unit

# Next 100 units (101-200): $0.75 per unit

# Above 200 units: $1 per unit


# Task: Write a program that accepts the number of units consumed and calculates the total bill.

unit=int(input())
total_bill=0

if(unit<=100):
  total_bill=unit*0.5
elif(unit>100):
  total_bill=unit*0.75
else:
  total_bill=unit*1
print(f"total electricity bill: {total_bill}")
```

```
250
total electricity bill: 187.5
```

```python
# 7. Eligibility for Loan Approval

# Scenario: A bank approves loans based on these conditions:

# Age should be between 21 and 60

# Monthly income should be greater than or equal to $5000


# Task: Write a program to check whether a person is eligible for the loan based on their age and monthly income.


age=int(input("enter your age"))
mi=int(input("enter your monthly income"))

if(age>=21 and age<=60 and mi>=5000):
  print("You are eligible for the loan")
else:
  print("you are not eligible for the loan")
```

```
enter your age23
enter your monthly income100000
You are eligible for the loan
```

```python
# 8. Temperature Alert System

# Scenario: A weather monitoring system alerts based on the temperature:

# Below 0°C: "Freezing weather"

# 0°C to 20°C: "Cold weather"

# 21°C to 30°C: "Warm weather"

# Above 30°C: "Hot weather"


# Task: Write a program that takes the temperature as input and displays the corresponding alert message.


temperature=float(input("Enter the temperature in**c: "))
if (temperature<0):
  print("Freezing weather")
elif(temperature>=0 and temperature<=20):
  print("Cold weather")
elif(temperature>=21 and temperature<=30):
  print("Warm weather")
else:
  print("Hot weather")
```

```
Enter the temperature in**c: 19
Cold weather
```