Assignment no 04

Q1. Write a program that takes input a name from user & greet the user like this:
Please enter your name: John Doe
Hi, John Doe

Soulution:

```
name = input("Please enter your name: ")
print (f"Hi, {name}")
```

Q2. Write a program to take “city” name as input from user. If user enters “Karachi”, welcome the user like this: “Welcome to city of lights”.

Please Enter Your City: Karachi
Welcome to city of lights

Soulution:

```
city = input("Please Enter Your City: ")
if city == "Karachi":
  print("Welcome to city of lights")
elif city == "karachi":
  print("Welcome to city of lights")
else:
  print("wrong input")
```

Q3. Write a program to take “gender” as input from user. If the user is male, give the

message: Good Morning Sir. If the user is female, give the message: Good Morning
Ma’am.

Soulution:

```
gender = input("What is your Gender: ")
good_morning = "Good Morning"
if gender == "male":
  print(f"{good_morning} Sir.")
elif gender == "female":
  print(f"{good_morning} Ma’am.")
else:
  print("wrong input")
```

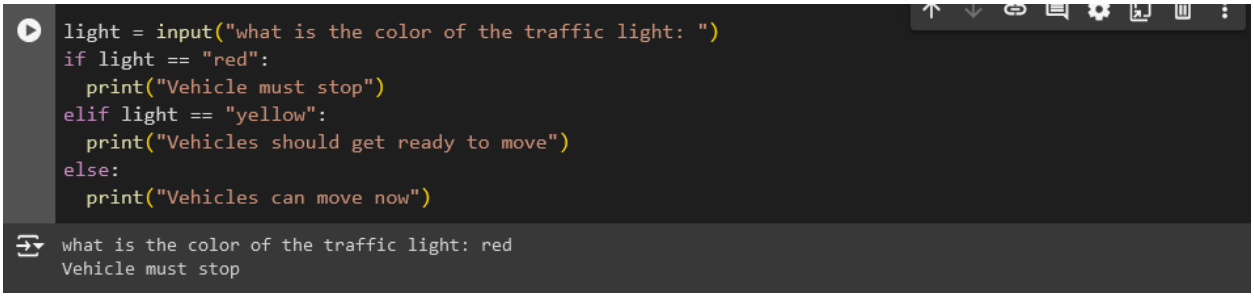
Q4. Write a program to take input color of road traffic signal from the user & show

the message according to this table

SIGNAL COLOR	MESSAGE
RED	Vehicle must stop
YELLOW	Vehicles should get ready to move
GREEN	Vehicles can move now

soulution:

```
light = input("what is the color of the traffic light: ")
if light == "red":
  print("Vehicle must stop")
elif light == "yellow":
  print("Vehicles should get ready to move")
else:
  print("Vehicles can move now")
```



Q5. Write a program to take input max age & current age from user. If the current age

is less than or equal to max age, show the message “You are welcome”.

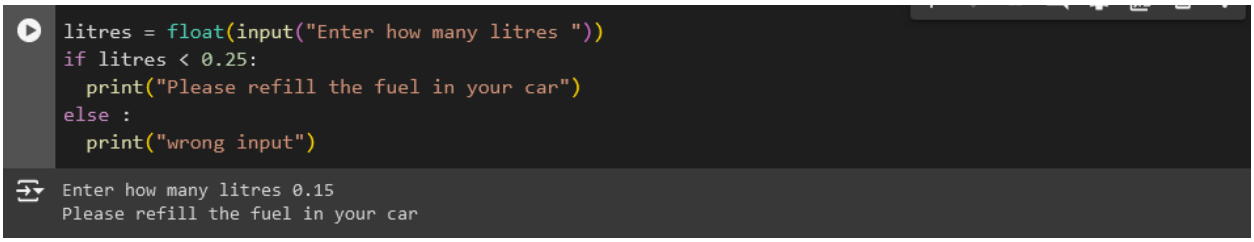
Soulution:

```
maxAge = int(input("Enter the maximum age: "))
age = int(input("Enter your current age: "))
if age <= maxAge:
    print("You are welcome")
else:
    print("Sorry, you are not eligible")
```

Q6. Write a program to take input remaining fuel in car (in litres) from user. If the current fuel is less than 0.25litres, show the message “Please refill the fuel in your car”.

Soulution:

```
litres = int(input("Enter how many litres "))
if litres == 0.25:
  print("Please refill the fuel in your car")
else :
  print("wrong input")
```



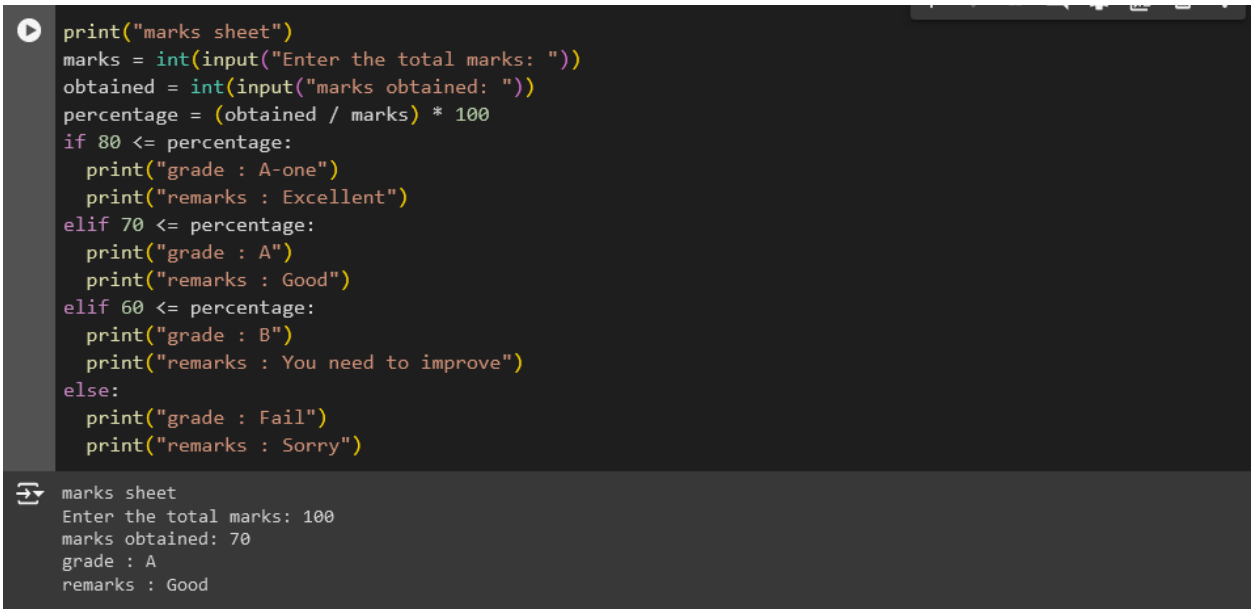
Q7. Write a program to take input the marks obtained in three subjects & total marks. Compute & show the resulting percentage on your page. Take percentage & compute grade as per following table:

Percentage	Grade	Remarks
Greater than or equal to 80	A-one	Excellent

Greater than or equal to 70	A	Good
Greater than or equal to 60	B	You need to improve
Less than 60	Fail	Sorry

Soulution:

```
print("marks sheet")
marks = int(input("Enter the total marks: "))
obtained = int(input("marks obtained: "))
percentage = (obtained / marks) * 100
if 80 <= percentage:
  print("grade : A-one")
  print("remarks : Excellent")
elif 70 <= percentage:
  print("grade : A")
  print("remarks : Good")
elif 60 <= percentage:
  print("grade : B")
  print("remarks : You need to improve")
else:
  print("grade : Fail")
  print("remarks : Sorry")
```



```
print("marks sheet")
marks = int(input("Enter the total marks: "))
obtained = int(input("marks obtained: "))
percentage = (obtained / marks) * 100
if 80 <= percentage:
  print("grade : A-one")
  print("remarks : Excellent")
elif 70 <= percentage:
  print("grade : A")
  print("remarks : Good")
elif 60 <= percentage:
  print("grade : B")
  print("remarks : You need to improve")
else:
  print("grade : Fail")
  print("remarks : Sorry")
```

```
marks sheet
Enter the total marks: 100
marks obtained: 70
grade : A
remarks : Good
```

Q8. Write a program to implement checkout process of a shopping cart system for an e-commerce website. Take input from users, the following:

a) Name of item1

b) Name of item2

c) Price of item 1

d) Price of item 2

e) Ordered quantity of item 1

f) Ordered Quantity of item 2

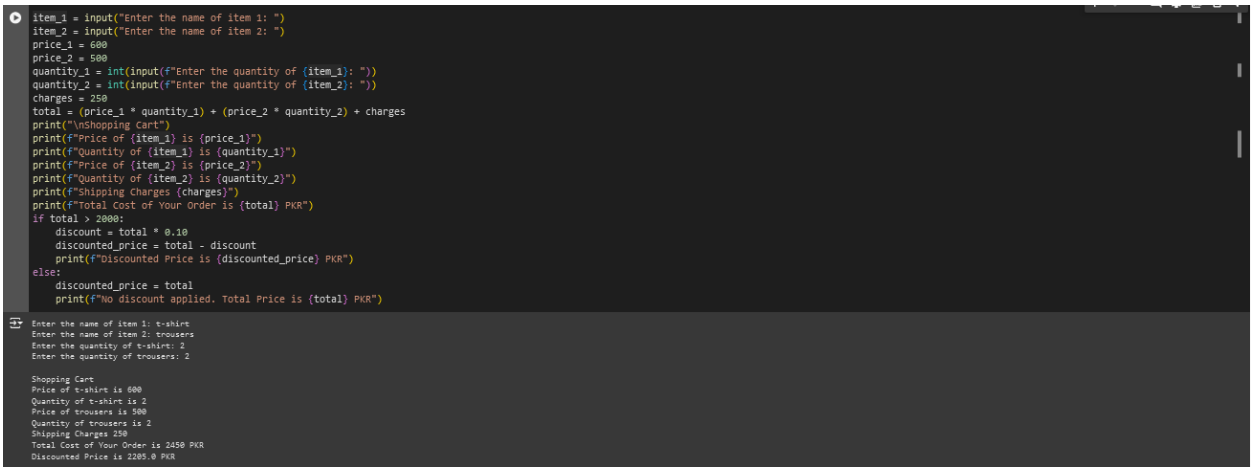
g) Shipping charges

Compute the total cost. If the total cost is above 2000 PKR, offer them 10%
discount & show the receipt in your browser.
Shopping Cart
Price of T-Shirt is 1000
Quantity of T-Shirt is 2
Price of USB Flash Drive is 3
Shipping Charges 250
Total Cost of Your Order is 4350 PKR
Discounted Price is 3915 PKR

Soulution:

```
item_1 = input("Enter the name of item 1: ")
item_2 = input("Enter the name of item 2: ")
price_1 = 600
price_2 = 500
quantity_1 = int(input(f"Enter the quantity of {item_1}: "))
quantity_2 = int(input(f"Enter the quantity of {item_2}: "))
charges = 250
total = (price_1 * quantity_1) + (price_2 * quantity_2) + charges
```

```
print("\nShopping Cart")
print(f"Price of {item_1} is {price_1}")
print(f"Quantity of {item_1} is {quantity_1}")
print(f"Price of {item_2} is {price_2}")
print(f"Quantity of {item_2} is {quantity_2}")
print(f"Shipping Charges {charges}")
print(f"Total Cost of Your Order is {total} PKR")
if total > 2000:
    discount = total * 0.10
    discounted_price = total - discount
    print(f"Discounted Price is {discounted_price} PKR")
else:
    discounted_price = total
    print(f"No discount applied.Total Price is {total} PKR")
```

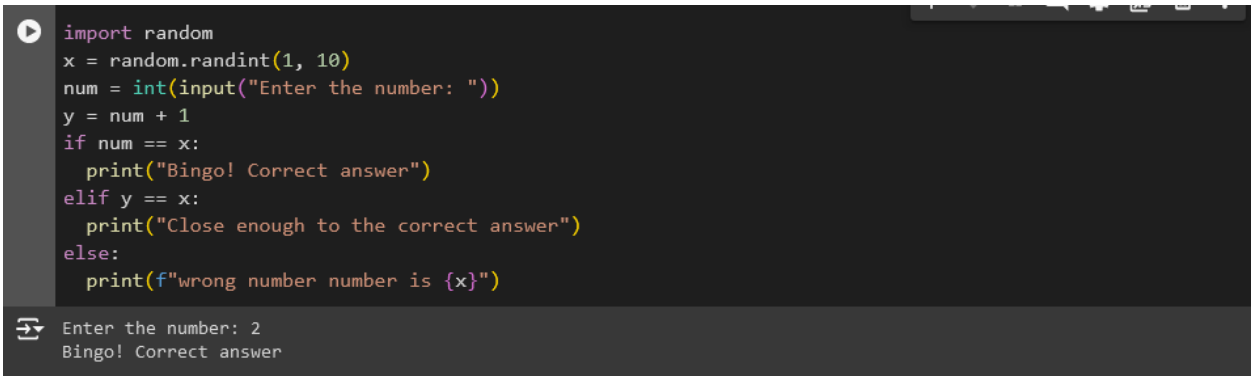


Q9. Guess game:
Store a secret number (ranging from 1 to 10) in a variable. Prompt user to guess the secret number.

a) If user guesses the same number, show “Bingo! Correct answer”.
b) If the guessed number +1 is the secret number, show “Close enough to the correct answer”.

Soulution:

```
import random
x = random.randint(1, 10)
num = int(input("Enter the number: "))
y = num + 1
if num == x:
  print("Bingo! Correct answer")
elif y == x:
  print("Close enough to the correct answer")
else:
  print("wrong number")
```



Q10. Write a program to check whether the given number is divisible by 3. Show the message to the user if the number is divisible by 3.

Soulution:

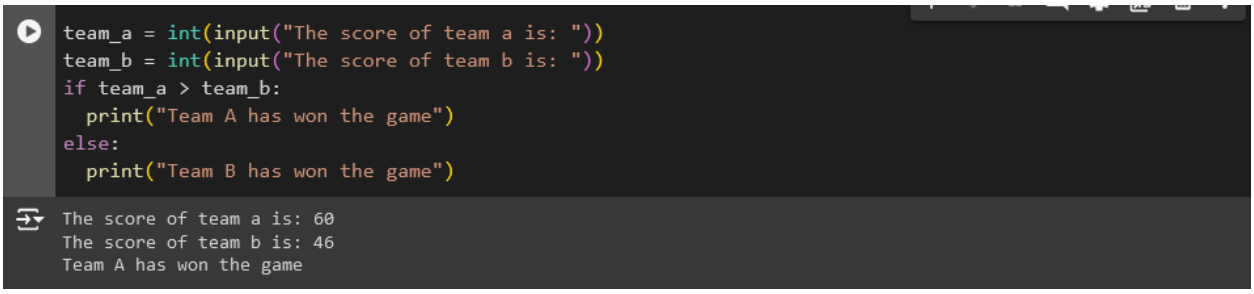
```
divisible = int(input("Enter the number: "))
z = divisible / 3
if z == 0 :
  print("The number divisible by 3")
else :
  print("The number is not divisible by 3")
```

Q11. Names & Total scores of two teams are taken as input. Write a program that

shows which team has won the game or show if there is a tie.
(Team A or Team B)
Score of Team A: 90
Score of Team B: 95
Team B has won the game

Soulution:

```
team_a = int(input("The score of team a is: "))
team_b = int(input("The score of team b is: "))
if team_a > team_b:
  print("Team A has won the game")
else:
  print("Team B has won the game")
```



Q12. Write a program that checks whether the given input is an even number or an odd number.

Soulution:

```
number = int(input("Enter the number: "))
divide = number % 2
if divide == 0:
  print("The number is even")
else:
  print("The number is odd")
```

Q13. Weather in Karachi nowadays is too cool, write a program that takes temperature as input and shows a message based on following criteria:

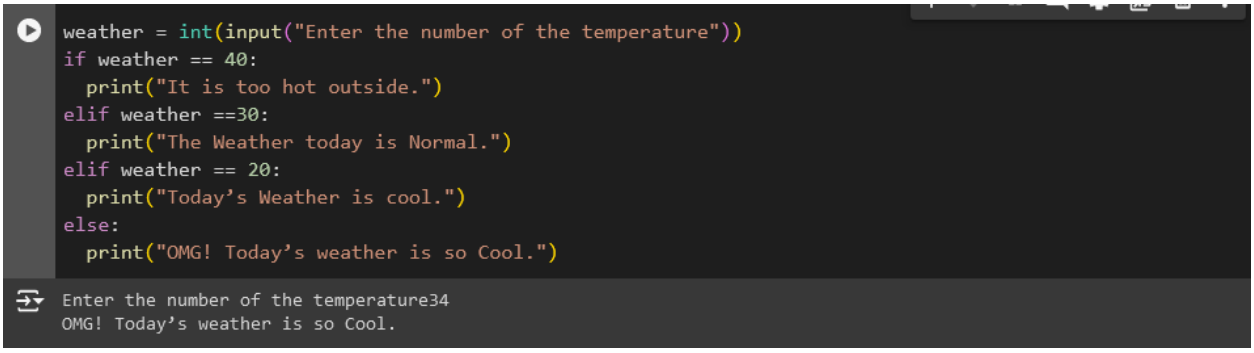
a) T > 40 then “It is too hot outside.”

b) T > 30 then “The Weather today is Normal.”

c) T > 20 then “Today’s Weather is cool.”
d) T > 10 then “OMG! Today’s weather is so Cool.”

Soulution:

```
weather = int(input("Enter the number of the temperature"))
if weather == 40:
  print("It is too hot outside.")
elif weather ==30:
  print("The Weather today is Normal.")
elif weather == 20:
  print("Today’s Weather is cool.")
else:
  print("OMG! Today’s weather is so Cool.")
```

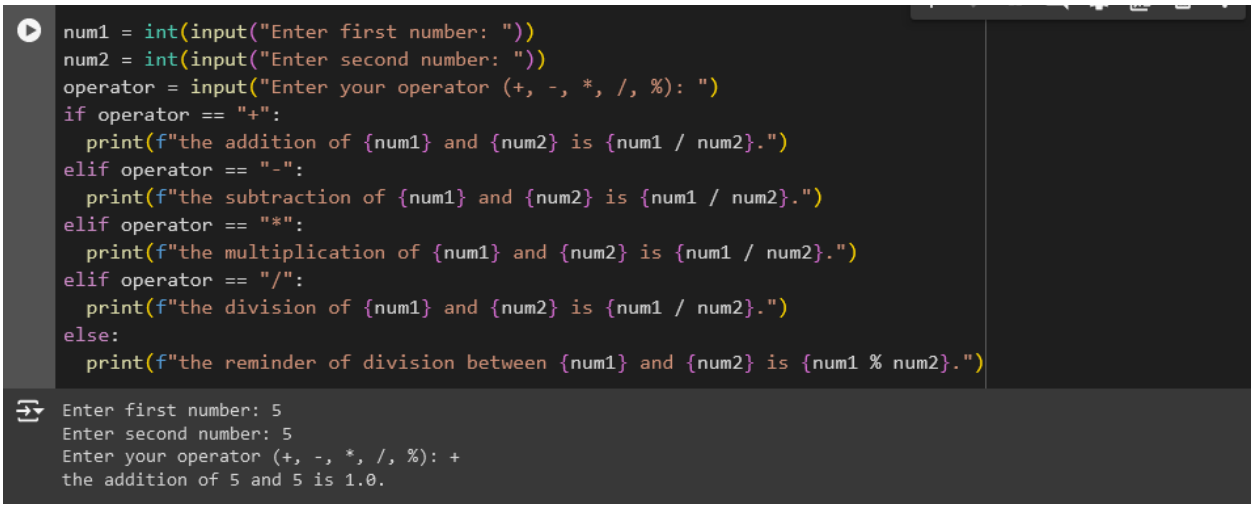


Q14. Write a program to create a calculator for +,-,*, / & % using if statements. Take

the following input:
a) First number
b) Second number
c) Operation (+, -, *, /, %)

Soulution:

```
num1 = int(input("Enter first number"))
num2 = int(input("Enter second number"))
operator = input("Enter your operator (+, -, *, /, %): ")
if operator == "+":
  print(f"the addition of {num1} and {num2} is {num1 / num2}.")
elif operator == "-":
  print(f"the subtraction of {num1} and {num2} is {num1 / num2}.")
elif operator == "*":
  print(f"the multiplication of {num1} and {num2} is {num1 / num2}.")
elif operator == "/":
  print(f"the division of {num1} and {num2} is {num1 / num2}.")
else:
  print(f"the reminder of division between {num1} and {num2} is {num1 % num2}.")
```



```
num1 = int(input("Enter first number: "))
num2 = int(input("Enter second number: "))
operator = input("Enter your operator (+, -, *, /, %): ")
if operator == "+":
  print(f"the addition of {num1} and {num2} is {num1 / num2}.")
elif operator == "-":
  print(f"the subtraction of {num1} and {num2} is {num1 / num2}.")
elif operator == "*":
  print(f"the multiplication of {num1} and {num2} is {num1 / num2}.")
elif operator == "/":
  print(f"the division of {num1} and {num2} is {num1 / num2}.")
else:
  print(f"the reminder of division between {num1} and {num2} is {num1 % num2}.")
```

```
Enter first number: 5
Enter second number: 5
Enter your operator (+, -, *, /, %): +
the addition of 5 and 5 is 1.0.
```

Q15. Write a program that takes user input day name. If the day is Monday, Tuesday, Wednesday, Thursday or Friday, then show “It’s a week day”. If the day is Saturday then show “It’s weekend”. If the day is Sunday then show “Yay! It’s a holiday”.

Soulution:

```
day = input("What day today: ")
if day == "Saturday":
  print("It’s weekend")
elif day == "sunday":
  print("Yay! It’s a holiday")
```

```
else:
  print("It’s a week day")
```

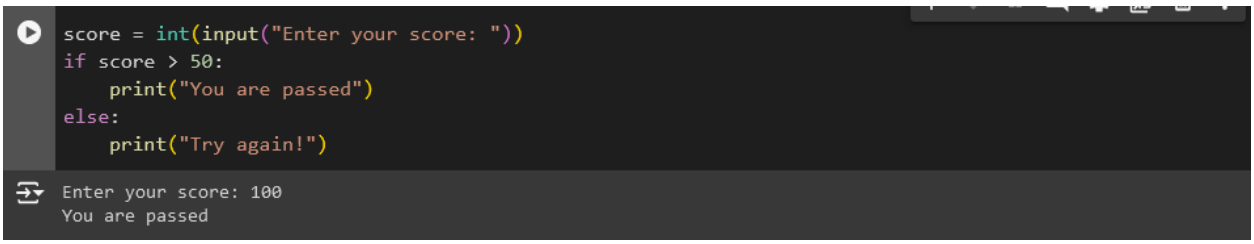
```
day = input("What day today: ")
if day == "Saturday":
  print("It’s weekend")
elif day == "sunday":
  print("Yay! It’s a holiday")
else:
  print("It’s a week day")
```

```
What day today: Saturday
It’s weekend
```

Q16. Write a program that takes input user’s score, if it’s greater than 50, say “You are passed”. Otherwise, show “Try again!”

Soulution:

```
score = int(input("Enter your score: "))
if score > 50:
   print("You are passed")
else:
   print("Try again!")
```



```
score = int(input("Enter your score: "))
if score > 50:
    print("You are passed")
else:
    print("Try again!")
```

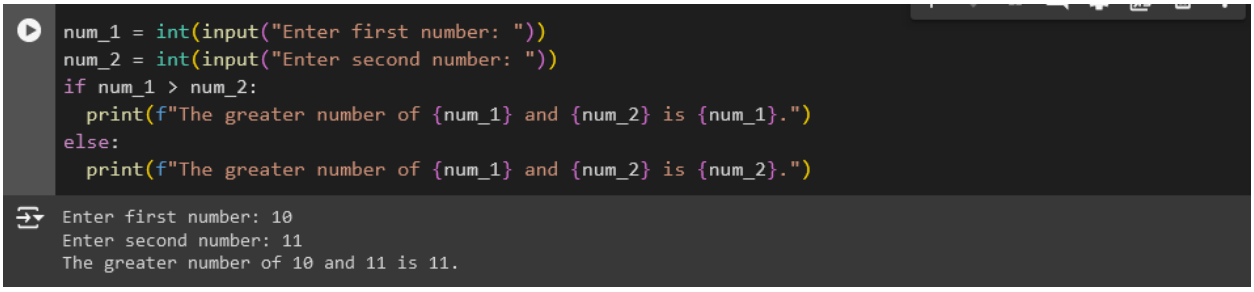
```
Enter your score: 100
You are passed
```

Q17. Write a program that:

a) takes 2 numbers.
b) tells whichever number is the greater (higher) number.
c) tells if they are equal
Show the output to make sure it works (e.g. "The greater number of 5 and 10 is 10.").

Soulution:

```
num_1 = int(input("Enter first number: "))
num_2 = int(input("Enter second number: "))
if num_1 > num_2:
  print(f"The greater number of {num_1} and {num_2} is {num_1}.")
else:
  print(f"The greater number of {num_1} and {num_2} is {num_2}.")
```



Q18. The Translator:
Write a program that:

a) takes 1 input, a language code (e.g. "es", "de", "en")
b) tells "Hello, World" for the given language, for atleast 3
c) languages. It should default to returning English.
(Hint: use translate.google.com to check the translation of hello world in
different languages)
Enter Language Code: en
Hello World

Soulution:

```
def translater(language_code):
    my_dic = {
        "en": "Hello, World",
        "es": "Hola, Mundo",
        "de": "Hallo, Welt",
        "fr": "Bonjour, le Monde",
        "it": "Ciao, Mondo"
    }
    return my_dic.get(language_code, my_dic["en"])
code = input("Enter a language code (e.g., 'es', 'de', 'en'): ").strip()
```

print(translater(code))

```
def translater(language_code):
    my_dic = {
        "en": "Hello, World",
        "es": "Hola, Mundo",
        "de": "Hallo, Welt",
        "fr": "Bonjour, le Monde",
        "it": "Ciao, Mondo"
    }
    return my_dic.get(language_code, my_dic["en"])
code = input("Enter a language code (e.g., 'es', 'de', 'en'): ").strip()
print(translater(code))
```

```
Enter a language code (e.g., 'es', 'de', 'en'): de
Hallo, Welt
```

Q19. Write a program to take input a number & tell whether it's a positive or negative number.

Soulution:

num = int(input("Enter the number: "))

if num > 0:

* print("It is a poitive number")*

elif num < 0:

* print("It is a negative number")*

else:

* print("Zero is neither a positive nor a negative number")*

```
num = int(input("Enter the number: "))
if num > 0:
  print("It is a poitive number")
elif num < 0:
  print("It is a negative number")
else:
  print("Zero is neither a positive nor a negative number")
```

```
Enter the number: 0
Zero is neither a positive nor a negative number
```

Q20. The Pluralizer:

Write a program that:
a) takes 2 inputs, a noun and a number.
b) tells the number and pluralized form, like "5 cats" or "1 dog".
Run the program for a few different inputs and show the result to make sure it works
Please enter a number: 4
Please enter a noun: boat
4 boats

Soulution:

```
noun = input("Enter a noun: ")
num_ber = input("Enter a number: ")
print(f"{num_ber} {noun}")
```

The End.