```
In [1]:  if True:
             print ('helloworld')

         helloworld
```

```
In [2]:  if True: # indentation by default it takes4 spaces
             print('hello world')

         hello world
```

```
In [3]:  if False:
             print('data world')
```

```
In [4]:  if True:
             print('hello world')
             if False:#the inner data is igorned
                 print('data world')

         hello world
```

```
In [5]:  if True:
             print('Hello Ramya')
         else:
                 print('how are you')

         Hello Ramya
```

```
In [6]:  if False:
             print('Hello Ramya')
         else:
             print('how are you')

         how are you
```

write a python code to check wheater number is even or odd

```
In [7]:  r=6
         a=r%2
         if a == 0:
             print('even  number')

         even  number
```

```
In [8]:  r=5 #nothing o/p given, we given no is wrong
         a=r%2
         if a ==0:
             print('Even number')
```

```
In [9]:  r=8
         a= r%2
         if a == 0:
             print('Even number')
             if r==1:
                 print('odd number')

         Even number
```

In [10]:
```python
r=8
a= r%2
if a == 0:
    print('Even number')
else:
        print('odd number')
```

Even number

In [11]:
```python
x = 8
r = x % 2
if r == 0:
    print('Even number')
print('odd number')#outside the if block, so it always runs, even if the number
```

Even number
odd number

In [12]:
```python
x = 8
r = x % 2
if r == 0:
  print('Even number')
else:
  print('odd number')
```

Even number

In [13]:
```python
x = 5
r = x % 2
if r == 0:
  print('Even number')
else:
  print('odd number')
```

odd number

In [14]:
```python
x = 20
r = x % 2
if r == 0: #given equal to
  print('Even number')
if r==1:
  print('odd number')
```

Even number

In [15]:
```python
x = 15
r = x % 2
if r == 0:
  print('Even number')
if r!=0: #not equal to symbol or,else condition
  print('odd number')
```

odd number

Nested if condition

In [16]:
```python
x = 7
r = x % 2

if r == 0:
```

```
        print('Even number')
    else:
        print('Odd Number')
        if x > 5:
            print('greater number')
```

```
Odd Number
greater number
```

In [17]:
```python
x= 2
r = x % 2

if r == 0:
    print('Even number')
    if x>5:
        print('greater number')
    else:
        print('smaller number')

else:
    print('Odd Number')
```

```
Even number
smaller number
```

In [18]:
```python
x=4
if x == 1:
    print('One')
if x == 2:
    print('Two')
if x == 3:
    print('Three')
if x == 4:
    print('Four')
```

```
Four
```

In [19]:
```python
x=3
if x == 1:
    print('One')
elif x == 2:
    print('Two')
elif x == 3:
    print('Three')
elif x == 4:
    print('Four')
```

```
Three
```

In [20]:
```python
x=10 #doesnot gives o/p,and no error
if x == 1:
    print('One')
elif x == 2:
    print('Two')
elif x == 3:
    print('Three')
elif x == 4:
    print('Four')
```

In [21]:
```python
x=15
if x == 1:
```

```
        print('One')
elif x == 2:
        print('Two')
elif x == 3:
        print('Three')
elif x == 4:
        print('Four')
else:
        print('number not found')
```

```
number not found
```

In [22]:
```
num = int(input('enter a number'))
if num > 0:
        print('positive')
elif num < 0:
        print('negative')
else:
        print('zero')
```

```
positive
```

geeks for geeks conditional statements

In [23]:
```
age = 20
if age>=18:
        print('eligible for vote in india')
```

```
eligible for vote in india
```

In [24]:
```
age = 19
if age>=18: print('eligible for vote in india')
```

```
eligible for vote in india
```

In [25]:
```
age = 10
if age>=10:
        print('travel for free')
else:
        print('pay for ticket')
```

```
travel for free
```

if-else shortcut also called as ternary operator

In [26]:
```
marks = 46
result = 'pass' if marks>=40 else 'fail'
print(f'result:{result}')
```

```
result:pass
```

In [27]:
```
age = 25
if age <= 12:
        print("Child.")
elif age <= 19:
        print("Teenager.")
elif age <= 35:
```

```
        print("Young adult.")
    else:
        print("Adult.")
```

Young adult.

In [28]:
```python
age = int(input('Enter your age: '))

if age <= 12:
    print("Child.")
elif age <= 19:
    print("Teenager.")
elif age <= 25:
    print("Young adult.")
elif age <= 35:
    print("Adult.")
else:
    print("Old.")
```

Old.

In [29]:
```python
age = 40
is_member = True
if age >= 60:
    if is_member:
        print("30% senior discount!")
    else:
        print("20% senior discount.")
else:
    print("Not eligible for a senior discount.")
```

Not eligible for a senior discount.

ternary conditional statement

In [30]:
```python
age = 10
s = 'adult' if age>=25 else'minor'
print(s)
```

minor

match case(switch case)- to match variables values

In [31]:
```python
number = 2
match number:
    case 1:
        print("One")
    case 2 | 3:
        print("Two or Three")
    case _:
        print("Other number")
```

Two or Three

geeks for geeks problems solutions

check if a number is even or odd

```
In [32]:   T = int(input("Enter a positive integer: "))
           if x % 2 == 0:
               print("Even number")
           else:
               print("Odd number")
```

Odd number

checking the status

```
In [36]:   def check_status(a, b, flag):#one of the a or b is non-negative, and flag is Fal
               if ((a >= 0) ^ (b >= 0)) and not flag:#^ is the XOR operator – returns True
                   return True#Both a and b are negative, and flag is True
               elif (a < 0 and b < 0) and flag: #gives flag is False in the first condition
                   return True
               else:
                   return False#otherwise false

           a = int(input("Enter value for a: "))#Get input from the user
           b = int(input("Enter value for b: "))
           flag_input = input("Enter flag (True/False): ")

           flag = flag_input.lower() == "true"#Convert string to boolean

           result = check_status(a, b, flag)#Call the function and print result
           print("Result:", result)
```

Result: True

Cat and Hat

```
In [37]:   def cat_hat_equal(s):
               cat_count = s.count("cat")
               hat_count = s.count("hat")
               return cat_count == hat_count

           str_input = input("Enter a string: ")
           print(cat_hat_equal(str_input))
```

True

the Else statement

```
In [39]:   a = int(input("Enter a number: "))

           if a > 100:
               print("Big")
           else:
               print("Number")
```

Big

The fizzBuzz Program

In [43]:
```python
a = 6
if a % 2 == 0:
    print("Fizz")
elif a % 3 == 0:
    print("Buzz")
elif a% 2==0 and a%3==0:
    print("FizzBuzz")
```

```
Fizz
```

In [44]:
```python
a = 25
if a % 7 == 0:
    print("Fizz")
elif a % 5 == 0:
    print("Buzz")
elif a% 2==0 and a%5==0:
    print("FizzBuzz")
```

```
Buzz
```

In [47]:
```python
a = 20
if a% 2==0 and a%5==0:print("Fizzbuzz")
elif a % 5 == 0:
    print("Buzz")
elif a % 7 == 0:
    print("Fiz")
```

```
Fizzbuzz
```

In [48]:
```python
a = int(input("Enter a number: "))
if a % 3 == 0 and a % 5 == 0:
    print("FizzBuzz")
elif a % 3 == 0:
    print("Fizz")
elif a % 5 == 0:
    print("Buzz")
else:
    print("Fizz")
```

```
FizzBuzz
```

Even Odd Game

In [49]:
```python
n = int(input("Enter number of apples: "))
if n % 2 == 1:
    print("Its me")
else:
    print("My Friend")
```

```
Its me
```

In [50]:
```python
n = int(input("Enter number of apples: "))
if n % 2 == 1:
    print("Its me")
```

```
else:
    print("My Friend")
```

My Friend

Odd or Even game

In [51]:
```python
def is_even(n):
    return n % 2 == 0
n = int(input("Enter a positive integer: "))
print(is_even(n))
```

True

Greatest of three Numbers

In [53]:
```python
a = 18
b = 60
c = 11
if a>b and a>c:
    print("A is greatest Number ")
elif b>a and b>c:
    print("B is Greatest")
else :
    print("C is the Greatest Number ")
```

B is Greatest

Leap Year

In [54]:
```python
year = 2004
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print("the year is a leap year")
else:
    print("the year is not a leap year")
```

the year is a leap year

In [55]:
```python
year = 2024
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):
    print("the year is a leap year")
else:
    print("the year is not a leap year")
```

the year is a leap year

Calculator

In [56]:
```python
a = int(input("Enter first number (a): "))
b = int(input("Enter second number (b): "))
operator = int(input("Enter operator (1-5): "))

if operator == 1:
    print("Result:", a + b)
```

```python
elif operator == 2:
    print("Result:", a - b)
elif operator == 3:
    print("Result:", a * b)
elif operator == 4:
    if b != 0:
        print("Result:", a / b)
    else:
        print("Error: Division by zero")
elif operator == 5:
    if b != 0:
        print("Result:", a % b)
    else:
        print("Error: Modulo by zero")
else:
    print("Invalid operator. Choose between 1 to 5.")
```

Result: 100

Closest Number

In [57]:
```python
target = int(input("Enter the target number: "))
a = int(input("Enter first number: "))
b = int(input("Enter second number: "))

diff_a = abs(target - a)
diff_b = abs(target - b)

if diff_a < diff_b:
    print("First number is closer to the target.")
elif diff_b < diff_a:
    print("Second number is closer to the target.")
else:
    print("Both numbers are equally close to the target.")
```

First number is closer to the target.

Dice Problem

In [65]:
```python
m= int(input("Enter the face number (1 to 6): "))
if 1 <= m<= 6:
    opposite_face = 7 - m
    print(" opposite face will be:", opposite_face)
else:
    print("Invalid face number! It Must be between 1 and 6.")
```

opposite face will be: 2

In [ ]: