In [8]:
```
 ## Guess a number is a game that prompts a player to guess a number between 0 and 9, which is randomly generated by the system
# When the input given by the user matches the number generated by the system then the user wins.The game should go as follows:
# Guess the number: 5
### Sorry, try again
# Guess the number: 3
###Sorry, try again
# Guess the number: 8
### You got it right! Congo!


import random
def guess_number():
    number=random.randint(0,9)

    while True:
        user=(eval(input("guess the number (between 0 to 9):")))

        if user==number:
            print("you got it right!congratulations!")
            break
        else:
            print("sorry,try again")

guess_number()
```

```
guess the number (between 0 to 9):5
sorry,try again
guess the number (between 0 to 9):3
sorry,try again
guess the number (between 0 to 9):7
sorry,try again
guess the number (between 0 to 9):8
sorry,try again
guess the number (between 0 to 9):9
you got it right!congratulations!
```

In [10]:
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# Make an improvement to the Guess a number game. Guide the user where they are standing and limit the number of attempts to 3.
# For example, the game should go like this:


import random
def guess_the_number():
    secret_number = random.randint(0,9)
    attempts = 3
    while attempts > 0:
        user_guess = int(input("guess the number (between 0 and 9): "))
        if user_guess == secret_number:
            print("congratulations! you got it right")
            break
        elif user_guess < secret_number:
            print("Too low")
        else:
            print("Too high")

        attempts -= 1
        print(f"Attempts left: {attempts}")

    if attempts == 0:
        print("sorry,you lost! The correct number was:", secret_number)
guess_the_number()
```

```
guess the number (between 0 and 9): 5
Too low
Attempts left: 2
guess the number (between 0 and 9): 8
Too high
Attempts left: 1
guess the number (between 0 and 9): 7
congratulations! you got it right
```

In [11]:
```
# Let us make the above game a little more interesting by converting it into a gambling problem.suppose that a player starts
# with Rs. 1,000. If a player guess the number in his first chance,then he will be given a prize of Rs.5000,if he requires
# 2 attempts then he will get a prize of Rs.1000.if he loses then he will lose Rs.500.For example the game should go like this:
# you have a cash of Rs.1000 with you
# guess the number:8
# Too high
# guess the number:3
# you have just won Rs.1000
# your balance:Rs.2000


import random
def guess_number():
    balance="1000"
    print("cash 1000 with you:")
    number=random.randint(1,10)
    for attempts in range(1,3):
        guess=eval(input("guess the number:"))
        if guess_number==number:
            if attempts==1:
                prize=5000
                print("congratutaltions! you guess the number in your first attempt:")
            elif attempt==2:
                prize=1000
                print("congratutaltions! you guess the number in your second attempt:")
            break
        elif guess<number:
            print("too high")
        else:
            print("too low")
    else:
        prize=-500
        print("sorry, you couldnot guess the number {}:".format(number))
        balance=prize
        print("you have just {}:".format(prize))
        print("you balance {}:".format(balance))

guess_number()
```

```
cash 1000 with you:
guess the number:500
too low
guess the number:1000
too low
sorry, you couldnot guess the number 8:
you have just -500:
you balance -500:
```

In [13]:
```
# Suppose that a player wants to play a game which requires him Rs. 1,000 to start. If the current balance in his account is
# less than Rs. 1,000 he needs to withdraw the extra money from his e-wallet

# Note that if the sum of money in his courrent account and the amount withdrawn is greater than or equal to Rs.1000 then he can
# start playing the game. However if the sum is less than Rs.1000 then the program should keep displaying the user the messge
# “You still do not have enough money to start playing."and keep prompting the user to withdraw money unless it crosses Rs.1000
# Once ready, i.e. if his current account balance crosses Rs. 1,000, it will display a message “Now, you are ready to play the
# game.” Your program should also display the account balance and the current amount in the e-wallet.


def play_game(account_balance, e_wallet_balance):
    while account_balance + e_wallet_balance < 1000:
        print("You still do not have enough money to start playing:")

        withdraw_amount = int(input("Enter the amount you want to withdraw: "))

        if e_wallet_balance >= withdraw_amount:
            account_balance += withdraw_amount
            e_wallet_balance -= withdraw_amount
        else:
            print("Insufficient funds in e-wallet. Please try again.")

        print("Account Balance: Rs. {account_balance}")
        print("E-Wallet Balance: Rs. {e_wallet_balance}")

    print("Now, you are ready to play the game.")
    print("Account Balance: Rs. {}:".format(account_balance))
    print("E-Wallet Balance: Rs. {}:".format(e_wallet_balance))

initial_account_balance = 200
initial_e_wallet_balance = 5000

play_game(initial_account_balance, initial_e_wallet_balance)
```

```
Now, you are ready to play the game.
Account Balance: Rs. 200:
E-Wallet Balance: Rs. 5000:
```

In [ ]:
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