*# SIMPLE CALCULATOR*def add(a, b):  
 return a + b  
  
def subtract(a, b):  
 return a - b  
  
def multiply(a, b):  
 return a \* b  
  
def divide(a, b):  
 return "Cannot divide by zero!" if b == 0 else a / b  
  
operations = {  
 '+': add,  
 '-': subtract,  
 '\*': multiply,  
 '/': divide  
}  
  
print("Simple Python Calculator")  
print("Available operations: + - \* /")  
  
try:  
 num1 = float(input("Enter first number: "))  
 num2 = float(input("Enter second number: "))  
 op = input("Choose an operation (+, -, \*, /): ")  
  
 if op in operations:  
 result = operations[op](num1, num2)  
 print(f"Result: {num1} {op} {num2} = {result}")  
 else:  
 print("Invalid operation. Please choose from +, -, \*, /")  
  
except ValueError:  
 print("Invalid input! Please enter numeric values.")

#RANDOM PASSWORD GENERATOR  
  
import random  
import string  
  
def generate\_password(length):  
 if length < 4:  
 return "Password length should be at least 4 for strength!"  
 lowercase = string.ascii\_lowercase  
 uppercase = string.ascii\_uppercase  
 digits = string.digits  
 special\_chars = string.punctuation  
  
 password = [  
 random.choice(lowercase),  
 random.choice(uppercase),  
 random.choice(digits),  
 random.choice(special\_chars)  
 ]  
  
 all\_chars = lowercase + uppercase + digits + special\_chars  
 password += random.choices(all\_chars, k=length - 4)  
 random.shuffle(password)  
 return ''.join(password)  
  
print("Welcome to the Python Password Generator!")  
try:  
 length = int(input("Enter desired password length: "))  
 password = generate\_password(length)  
 print(f"Generated Password: {password}")  
except ValueError:  
 print("Invalid input! Please enter a valid number.")

#ROCK PAPER SCISSORS GAME  
  
import random  
  
rock = '🪨 Rock'  
paper = '📰 Paper'  
scissors = '✂️ Scissors'  
  
images = [rock, paper, scissors]  
  
user\_score = 0  
computer\_score = 0  
  
while True:  
 try:  
 user = int(input("Enter your choice (0: Rock, 1: Paper, 2: Scissors): "))  
 if user < 0 or user > 2:  
 print("Invalid choice! Please enter 0, 1, or 2.")  
 continue  
 except ValueError:  
 print("Please enter a number (0, 1, or 2).")  
 continue  
  
 computer = random.randint(0, 2)  
  
 print(f"\nYour choice: {images[user]}")  
 print(f"Computer choice: {images[computer]}")  
  
 if user == computer:  
 print("It's a draw!")  
 elif (user == 0 and computer == 2) or (user == 1 and computer == 0) or (user == 2 and computer == 1):  
 print("You win this round!")  
 user\_score += 1  
 else:  
 print("Computer wins this round!")  
 computer\_score += 1  
  
 print(f"\nScores => You: {user\_score} | Computer: {computer\_score}")  
  
 play\_again = input("\nDo you want to play again? (yes/no): ").strip().lower()  
 if play\_again not in ['yes', 'y']:  
 print("\nThanks for playing!")  
 break