Name: GUJJARU GAGANA BHAGYA SREE

Email: [gaganagujjaru@gmail.com](mailto:gaganagujjaru@gmail.com)

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):

if b == 0:

return "Error: Division by zero is not allowed."

return a / b

def power(a, b):

return a \*\* b

def get\_number(prompt):

while True:

try:

return float(input(prompt))

except ValueError:

print("Invalid input. Please enter a valid number.")

def calculator():

while True:

print("\nBasic Calculator")

print("Select operation:")

print("1. Addition (+)")

print("2. Subtraction (-)")

print("3. Multiplication (\*)")

print("4. Division (/)")

print("5. Power (^)")

print("6. Exit")

choice = input("Enter choice (1-6): ")

if choice == '6':

print("Exiting calculator. Goodbye!")

break

if choice not in ['1', '2', '3', '4', '5']:

print("Invalid choice. Please select a valid operation.")

continue

num1 = get\_number("Enter first number: ")

num2 = get\_number("Enter second number: ")

if choice == '1':

print(f"Result: {add(num1, num2)}")

elif choice == '2':

print(f"Result: {subtract(num1, num2)}")

elif choice == '3':

print(f"Result: {multiply(num1, num2)}")

elif choice == '4':

print(f"Result: {divide(num1, num2)}")

elif choice == '5':

print(f"Result: {power(num1, num2)}")

if \_\_name\_\_ == "\_\_main\_\_":

calculator()

