1. Write a Python Program to Find LCM?

ANS: def gcd(a, b):

while b:

a, b = b, a % b

return a

def lcm(a, b):

return (a \* b) // gcd(a, b)

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

try:

num1 = int(input("Enter the first number: "))

num2 = int(input("Enter the second number: "))

if num1 <= 0 or num2 <= 0:

print("Please enter positive integers.")

else:

result = lcm(num1, num2)

print(f"The LCM of {num1} and {num2} is: {result}")

except ValueError:

print("Invalid input. Please enter valid integers.")

1. Write a Python Program to Find HCF?

ANS: def gcd(a, b):

while b:

a, b = b, a % b

return a

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

try:

num1 = int(input("Enter the first number: "))

num2 = int(input("Enter the second number: "))

if num1 <= 0 or num2 <= 0:

print("Please enter positive integers.")

else:

result = gcd(num1, num2)

print(f"The HCF of {num1} and {num2} is: {result}")

except ValueError:

print("Invalid input. Please enter valid integers.")

1. Write a Python Program to Convert Decimal to Binary, Octal and Hexadecimal?

ANS : def decimal\_to\_binary(number):

return bin(number)[2:]

def decimal\_to\_octal(number):

return oct(number)[2:]

def decimal\_to\_hexadecimal(number):

return hex(number)[2:].upper()

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

try:

decimal\_num = int(input("Enter a decimal number: "))

if decimal\_num < 0:

print("Please enter a non-negative integer.")

else:

binary\_num = decimal\_to\_binary(decimal\_num)

octal\_num = decimal\_to\_octal(decimal\_num)

hexadecimal\_num = decimal\_to\_hexadecimal(decimal\_num)

print(f"Binary: {binary\_num}")

print(f"Octal: {octal\_num}")

print(f"Hexadecimal: {hexadecimal\_num}")

except ValueError:

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

1. Write a Python Program To Find ASCII value of a character?

ANS: Here's a program to find the ASCII value of a character :

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

try:

char = input("Enter a character: ")

if len(char) != 1:

print("Please enter a single character.")

else:

ascii\_value = ord(char)

print(f"The ASCII value of '{char}' is: {ascii\_value}")

except TypeError:

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

For example, if you enter `A`, the program will display:

The ASCII value of 'A' is: 65

ASCII value of uppercase letter 'A' is 65. Similarly, the program will display the ASCII value for any other valid character entered by the user.

1. Write a Python Program to Make a Simple Calculator with 4 basic mathematical operations?

ANS: def add(x, y):

return x + y

def subtract(x, y):

return x - y

def multiply(x, y):

return x \* y

def divide(x, y):

if y == 0:

return "Cannot divide by zero"

return x / y

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

try:

print("Select operation:")

print("1. Add")

print("2. Subtract")

print("3. Multiply")

print("4. Divide")

choice = int(input("Enter choice (1/2/3/4): "))

if choice not in (1, 2, 3, 4):

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

else:

num1 = float(input("Enter first number: "))

num2 = float(input("Enter second number: "))

if choice == 1:

result = add(num1, num2)

print(f"{num1} + {num2} = {result}")

elif choice == 2:

result = subtract(num1, num2)

print(f"{num1} - {num2} = {result}")

elif choice == 3:

result = multiply(num1, num2)

print(f"{num1} \* {num2} = {result}")

elif choice == 4:

result = divide(num1, num2)

print(f"{num1} / {num2} = {result}")

except ValueError:

print("Invalid input. Please enter valid numbers.")