COMSATS University Islamabad

ASSIGNMENT # 04

Submitted To:

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Submitted By:

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Registration No:

FA25-BDS-023 & FA25-BDS-039

Program:

BDS-1A

Subject:

AICT

Date:

December 3 ,2025

Question 1:

Calculate the age by taking date of birth from the user as input and display age as follows: Your age is XX years, XX months, and XX days.

Python Code

```
import datetime

day = int(input("Enter birth day (1-31): "))

month = int(input("Enter birth month (1-12): "))

year = int(input("Enter birth year: "))


dob = datetime.date(year, month, day)

today = datetime.date.today()


age_in_days = (today - dob).days

years = age_in_days // 365

months = (age_in_days % 365) // 30

days = (age_in_days % 365) % 30


print(f"Your age is {years} years, {months} months and {days} days.")
```

Output:

```
Enter birth day (1-31): 15
Enter birth month (1-12): 3
Enter birth year: 2005
Your age is 20 years, 8 months and 28 days.
```

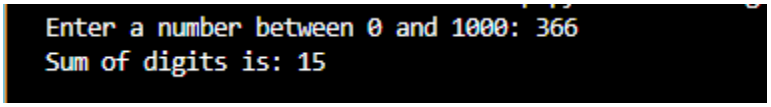
Question 2:

For any integer received from the user between 0 and 1000, adds all the digits in the integer. For example, if an integer is 932, the sum of all its digits is 14. Here is a sample run: Enter a number: 999 sum of digits is 27

Python Code:

```
num = input("Enter a number between 0 and 1000: ")

total = 0

for digit in num:

total += int(digit)

print(f"Sum of digits is: {total}")
```

Output:



Question 3:

How to determine any number to be even or Odd ?

Python Code

```
n = int(input("Enter a number: "))


if n % 2 == 0:

        print("The number is EVEN")

else:

         print("The number is ODD")
```

Output:

```
Enter a number: 77
The number is ODD
```

```
Enter a number: 88
The number is EVEN
```

Question 4:

Design the working of calculator by the use of functions.

Python Code

```
print("===== 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):
    if b == 0:
        return "Error! Division by zero."
    return a / b


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

b = float(input("Enter second number: "))
```

```
print("\nSelect Operation:")
print("1. Add")
print("2. Subtract")
print("3. Multiply")
print("4. Divide")

choice = int(input("Enter choice (1-4): "))
if choice == 1:
    print("Result:", add(a, b))
elif choice == 2:
    print("Result:", subtract(a, b))
elif choice == 3:
    print("Result:", multiply(a, b))
elif choice == 4:
    print("Result:", divide(a, b))
else:
    print("Invalid choice!")
```

Output:

```
===== SIMPLE CALCULATOR =====
Enter first number: 77
Enter second number: 90

Select Operation:
1. Add
2. Subtract
3. Multiply
4. Divide
Enter choice (1-4): 1
Result: 167.0
```