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**VISHWANATHRAO DESHPANDE INSTITUTE OF TECHNOLOGY,
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A Mini Project Report On

“Age calculator & number of days remaining for the Next birthday using python”

Submitted by

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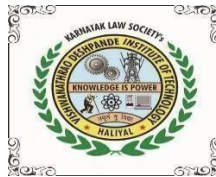
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Under the Guidance of

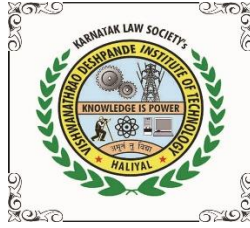
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING 2022-23

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate

Certified that the Project work entitled

“ Age calculator & number of days remaining for the Next birthday using python ”

is bonafide work carried out by

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In partial fulfillment of the requirements for the award of the degree of **Bachelor of Computer Science and Engineering of Visvesvaraya Technological University, Belagavi**, during the year 2022-2023. It is certified that all the corrections / suggestions indicated for internal assessment have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the Bachelor of Engineering degree.

Signature of the Guide

Prof. Farzana Nadaf

Signature of the HOD

Prof. Poornima Raikar

Signature of the Principal

Dr. V.A Kulkarni

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ABSTRACT

This program calculates a person's age in years, months, and days, as well as the number of days until their next birthday. It consists of two functions: ageCalculate and remainingdays.

The ageCalculate function takes in a person's birth year, month, and day as inputs and calculates their age using the current date and the person's date of birth. It then converts the difference between the two dates in seconds to years, months and days and prints the result.

The remainingdays function calculates the number of days until the person's next birthday by comparing the current month and day with the person's birth month and day and sets the next birthday accordingly. It then calculates the number of days left until the next birthday and prints the result.

The program prompts the user for their birth year, month, and day in a loop and calls the functions with these inputs until the user exits.

INTRODUCTION

This program calculates a person's age in years, months, and days, as well as the number of days until their next birthday. The program defines two functions: `ageCalculate` and `remainingdays`. The `ageCalculate` function takes in a person's birth year, month, and day as inputs, and calculates their age by first getting the current date and the person's date of birth. It then calculates the difference between the two dates in seconds using `total_seconds()`, divides the result by the number of seconds in a year to get the number of years, and converts the result to an integer. It also calculates the number of months and days by first calculating the remainder of the number of years when divided by 1 and then multiplying by the number of months in a year, and then doing the same thing to get the number of days. Finally, it prints the result in the format "You are X years, Y months, and Z days old".

The `remainingdays` function calculates the number of days until the person's next birthday by first getting the current date and the person's date of birth. It then uses an if statement to check if the current month and day are after or equal to the person's birth month and day. If they are, it sets the next birthday to be in the following year, otherwise it sets it to be in the current year. It then calculates the number of days left until the next birthday by subtracting the current date from the next birthday date and prints the result.

The program then has a while loop that prompts the user for their birth year, month, and day, and then calls the `ageCalculate` and `remainingdays` functions with these inputs. The loop continues until the user types n to exit. This program calculates a person's age in years, months, and days, as well as the number of days until their next birthday.

It then calculates the number of days left until the next birthday by subtracting the current date from the next birthday date and prints the result. The program then has a while loop that prompts the user for their birth year, month, and day, and then calls the `ageCalculate` and `remainingdays` functions with these inputs. The loop continues until the user types n to exit.

METHODOLOGY

This code defines two functions: `ageCalculate` and `remainingdays`. The `ageCalculate` function takes in the year, month, and date of birth as input, calculates the current date using `datetime.datetime.now().date()`, and then calculates the age of the person in years, months, and days using the difference between the date of birth and current date.

The `remainingdays` function takes in the year, month, and date of birth as input, calculates the current date using `datetime.date.today()`, and then calculates the number of days remaining until the next birthday using the difference between the date of the next birthday and the current date.

The code also has a while loop that allows the user to input their birthdate and run the functions multiple times, with the option to exit the loop by typing "n".

ALGORITHM:

1. The user inputs their birth year, month, and date.
2. The ageCalculate function is called and the input values are passed as arguments.
3. The function calculates the current date using the datetime module and the date of birth using the input values.
4. The difference in years, months, and days between the current date and date of birth is calculated.
5. The age is printed in the format 'You are {years} years, {months} months and {days} days old.'
6. The remainingdays function is called and the input values are passed as arguments.
7. The function calculates the current date and the date of the next birthday using the input values and the datetime module.
8. The difference in days between the current date and the next birthday is calculated.
9. The days left for the next birthday are printed.
10. The program asks the user if they want to try again, and the loop repeats if they do, otherwise the program exits.

PROGRAM:

```
import datetime

def ageCalculate(year, month, date):

    today = datetime.datetime.now().date()

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

    years= ((today-dob).total_seconds()/ (365.242*24*3600))

    yearsInt=int(years)

    months=(years-yearsInt)*12

    monthsInt=int(months)

    days=(months-monthsInt)*(365.242/12)

    daysInt=int(days)

    print('You Are {0} Years, {1} Months And {2} Days Old.
\n'.format(yearsInt,monthsInt,daysInt))

def remainingdays(yearinp, monthsinp, dateinp):

    today = datetime.date.today()

    dob = datetime.date(yearinp, monthsinp, dateinp)

    if(

        today.month == monthsinp

        and today.day >= dateinp

        or today.month > monthsinp

    ):

        nextBirthdayYear = today.year+1

    else:

        nextBirthdayYear = today.year

    nextBirthday = datetime.date(
```

```

        nextBirthdayYear, monthsinp, dateinp
    )
    print("Next birthday: ", nextBirthday)
    diff = nextBirthday - today
    print("Days left for next birthday: ", diff.days)
while True
    yearinp = int(input("Enter Year Of Birth in YYYY :\t"))
    if yearinp <1000 or yearinp>9999:
        print("Invalid year")
        break          #user entry
    monthsinp = int(input("Enter Month of Birth MM:\t"))
    if monthsinp<1 or monthsinp>12:
        print("invalid month")
        break
    dateinp = int(input("Enter Date DD :\t"))
    if dateinp<1 or dateinp>31:
        print("invalid date")
        break
    ageCalculate(yearinp, monthsinp, dateinp)
    remainingdays(yearinp, monthsinp, dateinp)
    a = input('Type y to Continue \n n To Exit \n')
    if a == 'y':
        continue
    else:
        break

```

Output:

```
Enter Year Of Birth in YYYY : 2002
Enter Month of Birth MM: 03
Enter Date DD : 15
You Are 20 Years, 10 Months And 12 Days Old.
```

```
Next birthday: 2023-03-15
Days left for next birthday: 48
Type y to Continue
n To Exit
y
Enter Year Of Birth in YYYY : 201
Invalid year
```

CONCLUSION

This program makes the user simpler to calculate their age and know the remaining days for their next birthday.

This would help the user to easily calculate their age without manually calculating and also gives the remaining days for his next birthday. This program defines two functions:ageCalculate and remainingdays.

The ageCalculate function takes in a person's birth year, month, and day as inputs, and calculates their age by first getting the current date and the person's date of birth.The remainingdays function calculates the number of days until the person's next birthday by first getting the current date and the person's date of birth

REFERENCES

- Python for everybody Charles Severance- text book for concepts related to loops
- Learn python the HARD WAY 3rd edition- Zed Shaw

IMPLEMENTATION

- Visual Studio Code 2023
- Python JDK 3.11.1