



# LESSON A-15

## ACTIVITY #2: AGE CALCULATOR

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In this activity you will write a program that will ask a user for the year they were born and if their birthday has occurred yet this year. The program will then calculate the user's age at the end of this year and will subtract a year if their birthday has not yet occurred. The program will then display their current age in a single print statement.

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### Step #1

Ask the user for the year they were born in and store it as a variable called **year**:

```
year = input('What year were you born: ')
```

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### Step #2

Ask the user if their birthday has happened yet this year and store it as a variable called **bday**:

```
bday = input('Has your birthday happened this year? (y/n): ')
```

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### Step #3

Now, convert the year from a string to an integer using the **int()** command and store it as a variable called **year\_int**:

```
year_int = int(year)
```

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## Step #4

The `year_int` is now storing the integer value of the year the user was born. You can use this value for math purposes. Subtract that year from the current year and store the result as a variable called `age`:

```
age = 2018 - year_int
```

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## Step #5

The `age` value is currently the user's age at the end of this year. If their birthday has not yet occurred, then they will be a year younger than the `age` value. Use an if condition to see if the value of `bday` is equal to `'n'`, and if so, subtract 1 from the value of `age`. Remember to end the if statement with a colon and to indent the code to be executed by the if statement:

```
if bday == 'n':  
    age = age - 1
```

If the user answered `'n'` then 1 year will be subtracted from the value of `age`. You don't need an else statement because if the user answered `'y'` then `age` does not need to be modified.

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## Step #6

The `age` value is currently an integer, so it cannot be easily printed with a string. Convert `age` to its string equivalent using the `str()` command, and use a variable called `age_str` to store the string value:

```
age_str = str(age)
```

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## Step #7

Build a `print` statement that will bring everything together:

```
print('Your current age is ' + age_str)
```

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## Step #8

Verify the fully assembled program is free of errors:

```
year = input('What year were you born: ')
bday = input('Has your birthday happened this year (y/n): ')

year_int = int(year)
age = 2018 - year_int

if bday == 'n':
    age = age - 1

age_str = str(age)

print('Your current age is ' + age_str)
```

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## Step #9

Run your program a few times to make sure the age it's outputting is correct, and that changing whether or not your birthday happened this year gives you the correct age. Save the program if desired (optional).