

Module 3 Lab 3 Solution

Welcome to our Lab Practice!

This lab is about branching - if-elif-else statements. Are you ready? Let's get started!

You will find some small tasks in sections below.

###Task: check if a number is positive, negative, or 0.

You should ask the user to enter a number, if it is above 0, print "It is positive"; if it is below 0, print "It is negative"; otherwise, print "It is zero".

```
n = float(input('Enter a number: '))
if n > 0:
    print('It is positive')
elif n < 0:
    print('It is negative')
else:
    print('It is zero')
```

```
Enter a number: 2
It is positive
```

###Task: check how many days current month has.

You should ask the user to enter the number indicating the current month, such as 1 as January; then print the days the month has, such as print 31 if the user entered 1. Let's assume there are 28 days in February.

```

month = int(input('Enter the month: 1 - 12:'))
if month == 1 or month == 3 or month == 5 or month == 7 or month == 8 or month == 10 or month == 12:
    print(31)
elif month == 2:
    print(28)
else:
    print(30)

```

```

Enter the month: 1 - 12:10
31

```

###Task: collect parking fee

A parking garage has following price policy

1. first half hour: 5
2. second half hour to 2 hours: 15
3. more than 2 hours: 5 per hour

Ask the user to enter the hours of parking (it should be a float number, such as 1.6 as 1.6 hours), and calculate the parking fee.

Note, if a user parks the car as 5.5 hours, the formular will be 5 (for first half hour) + 15 (for second half hour to 2 hours) + 5 * (5.5 - 2) (for hours more than 2)

```

hours = float(input('Enter the hours of parking as a float number, such as 1.6 as 1.6 hours:'))
if hours <= 0.5:
    fee = 5
elif hours <= 2:
    fee = 5 + 15
else:
    fee = 5 + 15 + 5 * (hours - 2)
print(fee)

```

```

Enter the hours of parking as a float number, such as 1.6 as 1.6 hours:5.5
37.5

```

###Task: What stage are you in?

Write a program that asks the user to enter a person's age. The program should display a message indicating whether the person is an infant, a child, a teenager, an adult, or a senior citizen.

Following are the guidelines:

1. If the person is 1 year old or less, he or she is an infant.
2. If the person is older than 1 year, but younger than 13 years, he or she is a child.
3. If the person is at least 13 years old, but less than 20 years old, he or she is a teenager.
4. If the person is at least 20 years old, but less than 65 years old, he or she is an adult.
5. Otherwise the person is a senior citizen.

```
age = int(input('Enter your age as an integer: '))
if age <= 1:
    print('You are an infant')
elif age < 13:
    print('You are a child')
elif age < 20:
    print('You are a teenager')
elif age < 65:
    print('You are an adult')
else:
    print('You are a senior citizen')
```