

Lecture 3 Programming Solutions

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[1]: # Murat M. Tunc
      # Tilburg University
      # Computer Skills
      # Lecture 3 - Solutions to Programming Exercises
      # November 2021
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[2]: # In-class Exercise 1

import random

# Step 1: Randomly generate two numbers

number1 = random.randint (0, 9)
number2 = random.randint (0, 9)

# Step 2: Display the question and read in the answer

print("What is", number1, "+", number2, "?")

answer = int ( input("Please type the answer and press Enter:"))

# Step 3: Check whether the answer is correct or not

if answer == number1 + number2:
    print("Your answer is correct!")
else:
    print("Your answer is wrong!")
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What is 5 + 3 ?

Please type the answer and press Enter:8

Your answer is correct!

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[3]: # In-class Exercise 2

# Step 1: Read in the day of the week from the user

dayOfTheWeek = int(input("Please input the day of the week \
(1 for Monday, ..., 7 for Sunday) and press Enter: "))
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# Step 2: Check whether it is a weekday or a weekend
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if dayOfTheWeek <= 5 and dayOfTheWeek >= 1:
    print("It's a weekday!")
elif dayOfTheWeek == 6 or dayOfTheWeek == 7:
    print("It's a weekend!")
else:
    print("Invalid input!")
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Please input the day of the week (1 for Monday, ..., 7 for Sunday) and press

Enter: 5

It's a weekday!

[4]: *# In-class Exercise 3*

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# Step 1: Read in the year
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year = int( input ("Please input the year and press Enter:"))
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# Step 2: Check whether the year is a leap year
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if year % 400 == 0 or (year % 4 == 0 and not year % 100 == 0):
    print("It's a leap year!")
else:
    print("It's not a leap year!")
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Please input the year and press Enter:1996

It's a leap year!

[5]: *# Practice Exercise 1*

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# Step 1: Read in the IMDB rating and metascore
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IMDBRating = float(input("Please input IMDB rating of a movie (0 to 10) and ↵
↵press Enter:"))
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metascore = int(input("Please input IMDB rating of a movie (0 to 100 - integer) ↵
↵and press Enter:"))
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# Step 2: Recommend the movie if the rating > 7.0 and metascore > 60
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if IMDBRating > 7.0 and metascore > 60:
    print("This movie is recommended to watch!")
else:
    print("This movie is not recommended to watch!")
```

Please input IMDB rating of a movie (0 to 10) and press Enter:7.4

Please input IMDB rating of a movie (0 to 100 - integer) and press Enter:53

This movie is not recommended to watch!

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[6]: # Practice Exercise 2

# Step 1: Read in the day, month and year

print("Give me a beer please!")

print("Can I see an ID?")

dayOfBirth = int(input("Please input the day of your birthday and press Enter:
↵"))

monthOfBirth = int(input("Please input the month of your birthday and press ↵
↵Enter:"))

yearOfBirth = int(input("Please input the year of your birthday and press Enter:
↵"))

# Step 2: Check whether the user can legally purchase beer in US

if yearOfBirth < 2000 or (yearOfBirth == 2000 and monthOfBirth < 11) or \
    (yearOfBirth == 2000 and monthOfBirth == 11 and dayOfBirth <= 23):
    print("Here is your beer!")
else:
    print("I'm sorry, I cannot sell you a beer!")
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Give me a beer please!
Can I see an ID?
Please input the day of your birthday and press Enter:30
Please input the month of your birthday and press Enter:06
Please input the year of your birthday and press Enter:1990
Here is your beer!
```

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