LONDON METROPOLITAN UNIVERSITY

ITAHARI INTERNATIONAL COLLEGE

Module Code & Module Title

CC4002NT, INFORMATION SYSTEM

Assessment Weightage & Type

20% Individual coursework

Year and Semester

2019 Spring

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Assignment Due Date:

Assignment Submission Date:3 MAY

I confirm that I understand my coursework needs to be submitted online via Local Server under the relevant module page before the deadline in order for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a marks of zero will be awarded.

Contents

1. Proposal

My project is developed under python programming for movie rental system. It is suitable for both customer and owner. The main purpose for developing this project Movie Rental System is to easily access for movie fan to get there interested movie cd for rent. With the help of this system the owner can easily know customer details, renting details and other inventories reports.

The movie rental system is one of the best ways to draw more and more customer and offers best services. With this system the owner can run 24 hrs services to their customer. This system easily records the information of customer and movies because of this feature it can bring small or medium rental business in next level.

2. Introduction

As all we that this is the era of science and technology where a computer plays a vital role.as the number of people have the knowledge and access on the technology this movie rental system helps them to easily access for the movies cd which they wanted rent at low cost and short period of time. The movie rental system can carry out the rental services 24x7,365 days per year. This system easily shows the available information, holds customer details and return details.

For developing this system, we have to have the knowledge on programming or coding. Programming is the main key for developing any system, software, etc. The features of the movie rental program are as follows:

- It reads the data of the text files and shows the information of the subject or movies which are available for renting.
- It allows user to enter in a system and allow to rent and return the movies
- When customer rent the movie, it generates the invoice and kept the information of movie and customer which are needed.
- When customer successfully, rent the movie it calculates the price and update the movie system.
- When customer want to return movie, it records the information of customer and movie and charge the fine if customer has rented the movie more than 10 days. And again, updates the information.
- It also allows the user to enter in the system and directly exit without renting and returning.

3. Discussion and analysis

While creating this project we have to do following steps.

- Proposal
- Introduction
- Writing code
- Doing flowchart, algorithm
- Testing
  Some of the tools that were used for creating this project.
- Google
- Ms-word
- Python

4. Algorithms

Step1: Start the main function of program.

Step2: Display the information and get the input from the customer for renting, returning and exiting.

Step3: If the customer wants to rent movie displays the information of movie and take customer and movie details and print the price of movie.

Step4: If the customer wants to rent more than one movie, we have to add price.

Step5: If renting movie is successful, we have to update the information.

Step6: If the customer wants to return movie, information of movie and customer should be taken.

Step6: while returning movie if the returning date is more than 10 days. we have to charge fine.

Step7: If customer does not want to rent and return then the program exits along with the exit of customer

Step8: Closing of program is done when customer chose to exit.

4.1. Flowchart

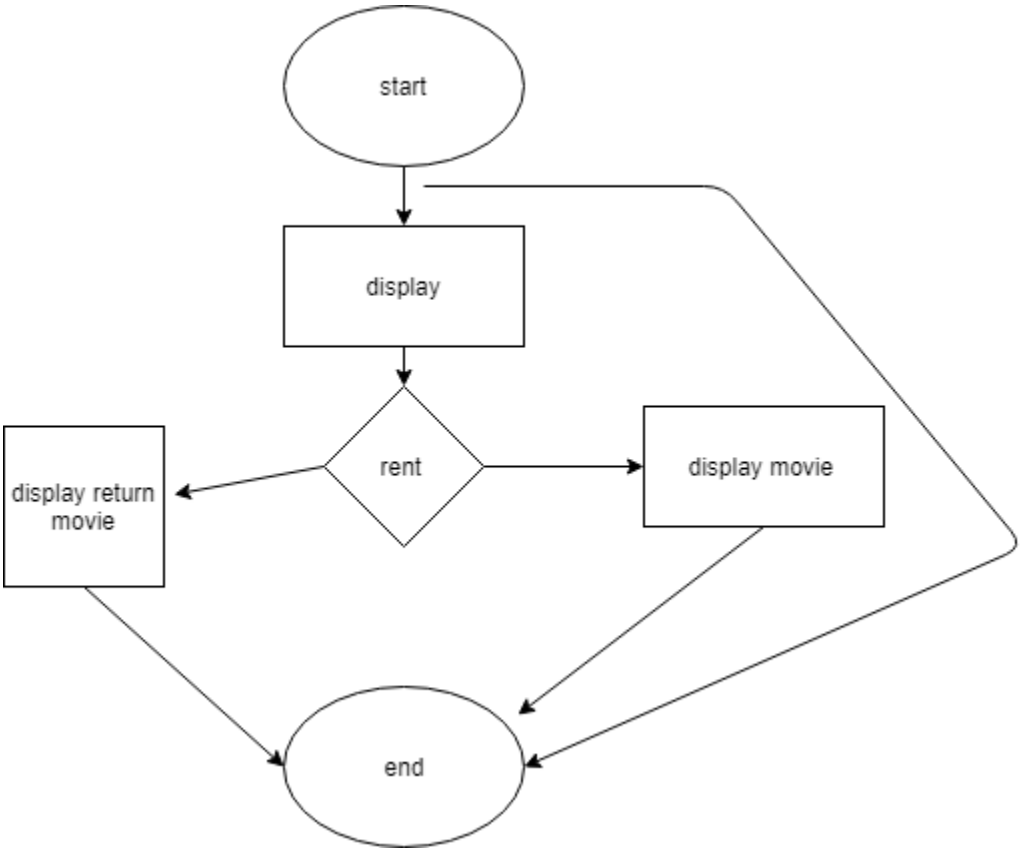


Figure 1: flowchart

Fig.1flowchart

4.2. Pseudocode

Reads text files

```
def main():
    decision="yes"
    while decision=="yes":
        a=open('list.txt','r')
        print(a.read())
        a.close()
```

renting

```
def updaterent(Id):
    b=Id-1
    for z in range(0,3):
        moviequantity[z]=moviequantity[z]-1
```

updating

```
update=open("rent.txt",'a')
```

```
    update.write("Name of the custmor:"+Name+ "\n" +"movieno:"+str(Id)+"\n"+"Renting date:"+str(Date)+"\n")
    update.write("\n")
    update.write("\n")
    update.close()
renting
returning=open("return.txt","a")
    returning.write("Name of the Customer:"+Name+ "\n" +"Movie Number"+str(number)+"\n"+'Returning Movie Date:'+str(Date)+"\n")
    print("-------------------------update----------------------------")
    returning.write("\n")
    returning.write("\n")



returning def moviereturn():
    for z in range(0,3):
        print("No. ",z+1,"Movie Name:",movieName[z],"Movie Price:",moviePrice[z],"Movie Quantity:",moviequantity[z])
    Name=input("Enter your Name:")
    number=int(input("Enter the number of movie you have rented :"))


update
def moviereturn():
    for z in range(0,3):
        print("No. ",z+1,"Movie Name:",movieName[z],"Movie Price:",moviePrice[z],"Movie Quantity:",moviequantity[z])
    Name=input("Enter your Name:")
    number=int(input("Enter the number of movie you have rented :"))
```

```
    if  number==1:
exit
if a=="yes":
        main()
    else:
        sys.exit(
```

5. Data Structures

Data structures are a way of data organization and storage that allows for efficient access and use. Many different types of data structure are defined to enable the data scientists to focus on the main scenario of solving major problems, instead of losing their attention to data description and access details. There are two types of data structures they are primitive and non-primitive (Jaiswal, 2017)).

5.1. Primitive data Structures

Primitive data structures are the basic structures of data. They are data manipulation building blocks containing pure, simple data values. There are four primitive variables in python.

1.Integers

We can use an integer to show numeric data and, in particular, whole numbers from

negative to positive infinity, such as 1,4, 5 or -1 (Jaiswal, 2017).

2.Float

Float is the number of floating points, which usually ends with a decimal number such a s 1.11, 0.44 or 3.14 (wentworth, 2012).

3.Strings

Alphabet, strings, word or another collection of character. You can create strings in Pyth on by inserting a sequence of characters in a single or double quote. For example,

' Girija ' and ' Tamang ' (Jaiswal, 2017).

4.Boolean

Booleans are useful in terms of conditionality and comparison. This datatype only takes the value: True and False (wentworth, 2012).

5.2. Non-Primitive Data Structures

The sophisticated members of the data organization family are non-primitive types. They store not only a value, but a collection of values in different sizes.

The types of non-primitive data structures are:

1. List

   Python lists are used to store collections of mixed items. These are mutable, which means that without changing their identity, we can change their content. Lists of elements separated by a comma can be identified with its square brackets [and]. Python provides many methods for manipulating and working with lists. Normal list manipulations include adding new items to a list, removing items from a list, sorting or reversing a list (wentworth, 2012).

2. Tuples

   Tuples are another standard type of sequence data which is similar to the list. The difference between tuples and list is that tuples are immutable, meaning you can't delete, add or edit any values within them once you have defined them (Jaiswal, 2017).

3. Dictionary

   Dictionary is an ordered collection of pairs of key value. Usually it is used when we have an enormous amount of data. We need to know the key to retrieve the value. In python, dictionaries are defined in braces {} with each item being a pair in the key: value. Key and value of could be if any type. Keys are usually numbers or string. While any arbitrary python object may be values. Dictionaries are enclosed with curly braces ({}) and square braces ([]) can be used to assign and access values (wentworth, 2012).

4. Set

   Sets are a collection of unordered stuffs which are unique. These are useful for creating lists containing single data only. It's an unordered, but mutable collection which are very helpful for a large dataset to be processed. Since sets are unordered, there is no concept of index and specific order. They are denoted by {}. (Sturtz, 2017)

6.Program

The project of movie rental system is given below. While developing this project I have used loop like if, for, while. The code s which were used for developing the movie rental system is:

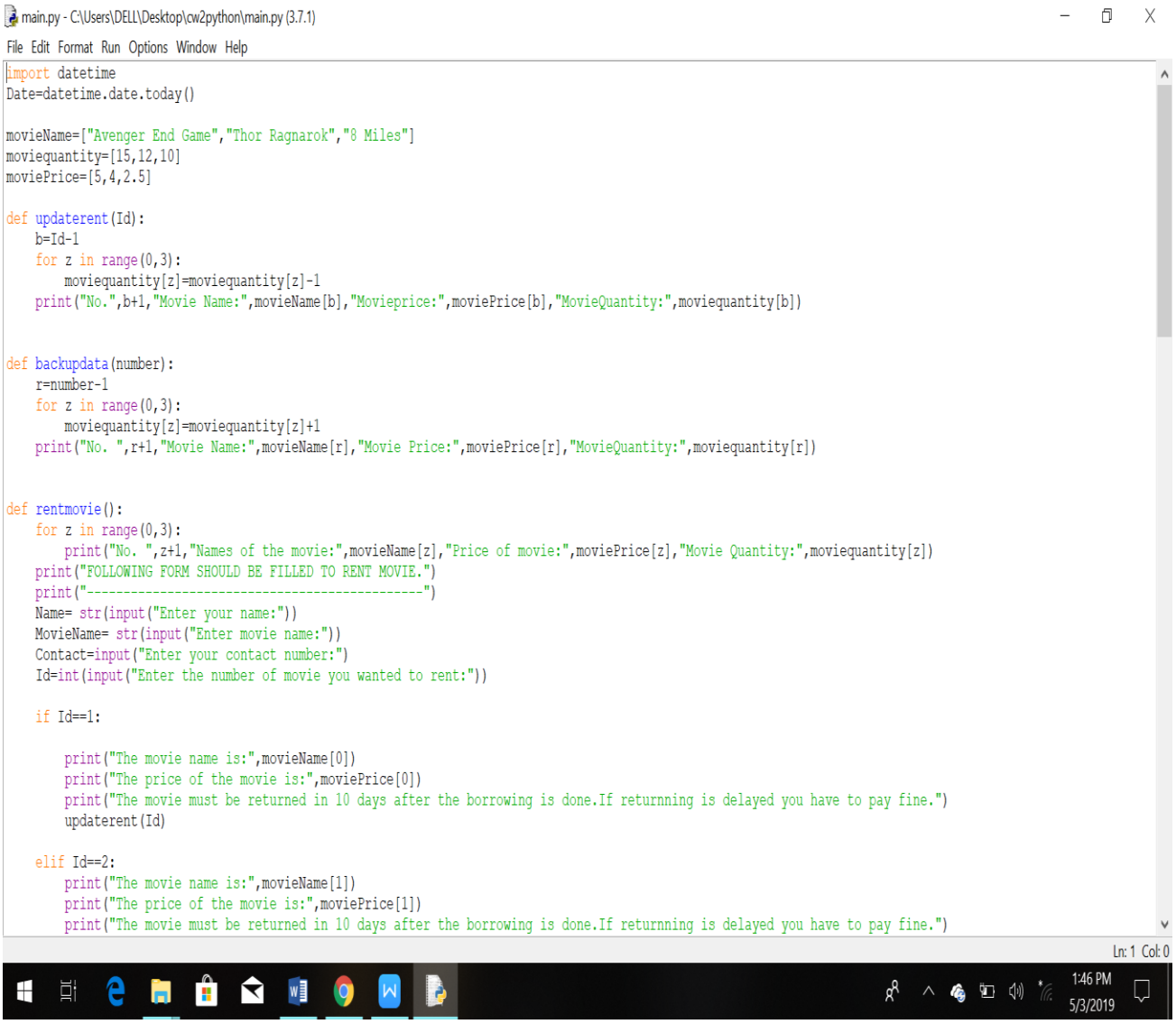


Figure 2: program 1

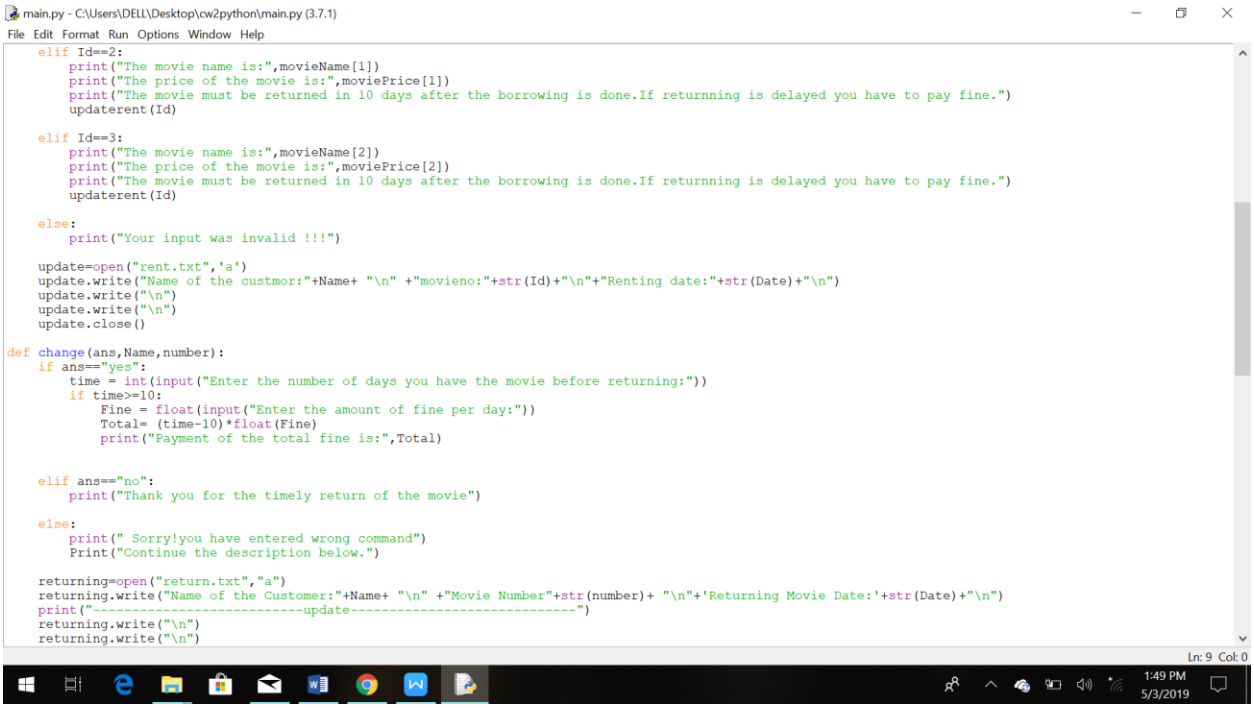
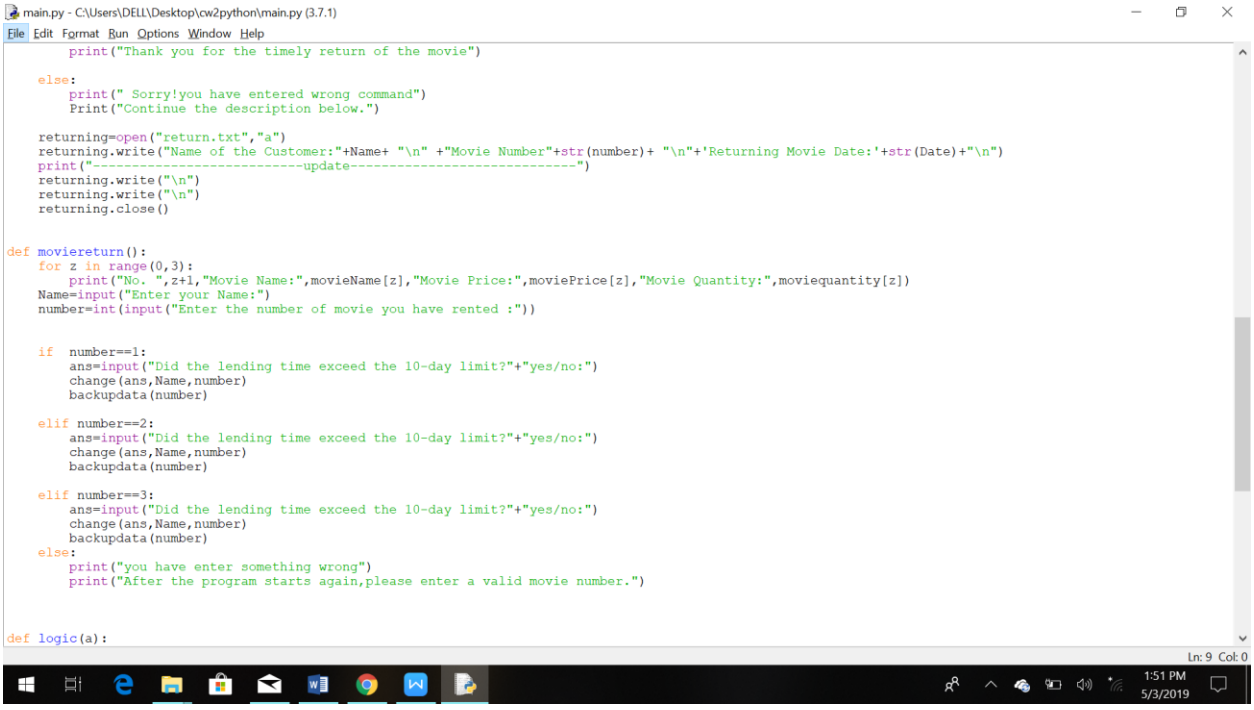


Figure 3: program 2



main.py - C:\Users\DELL\Desktop\cw2python\main.py (3.7.1)

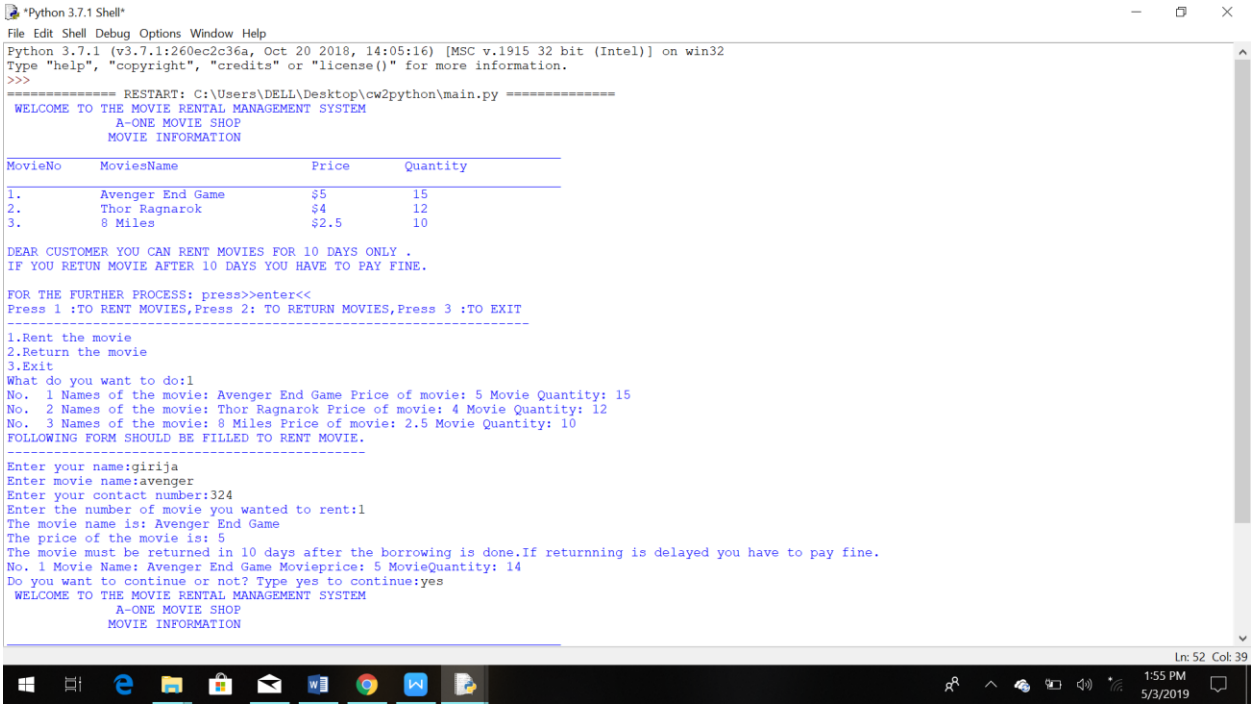
File Edit Format Run Options Window Help

```
        print("After the program starts again,please enter a valid movie number.")



def logic(a):
    if a=="yes":
        main()
    else:
        sys.exit()



def main():
    decision="yes"
    while decision=="yes":
        a=open('list.txt','r')
        print(a.read())
        a.close()
        want = str(input("\nDEAR CUSTOMER YOU CAN RENT MOVIES FOR 10 DAYS ONLY .\n"
                 "IF YOU RETUN MOVIE AFTER 10 DAYS YOU HAVE TO PAY FINE.\n"+
                     "\nFOR THE FURTHER PROCESS: press>>enter<<"
                     ))
        print("Press 1 :TO RENT MOVIES,Press 2: TO RETURN MOVIES,Press 3 :TO EXIT")
        print("------------------------------------------------------------------")
        print("1.Rent the movie""\n""2.Return the movie""\n""3.Exit")
        n=int(input("What do you want to do:"))
        if n==1:
            rentmovie()

        elif n==2:
            moviereturn()

        elif n==3:
            sys.exit()

        else:
            print("You have entered invalid key")
        a=input("Do you want to continue or not? Type yes to continue:")
        logic(a)

main()
```

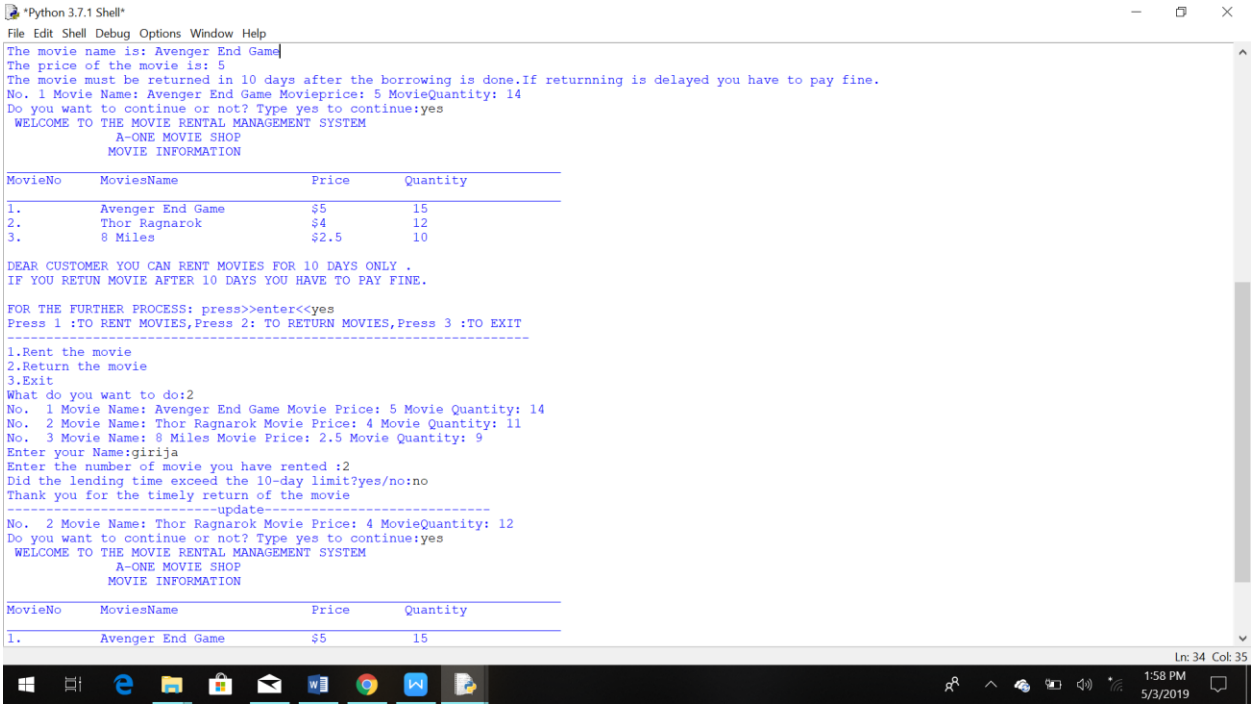
Ln: 9 Col: 0

7. Testing

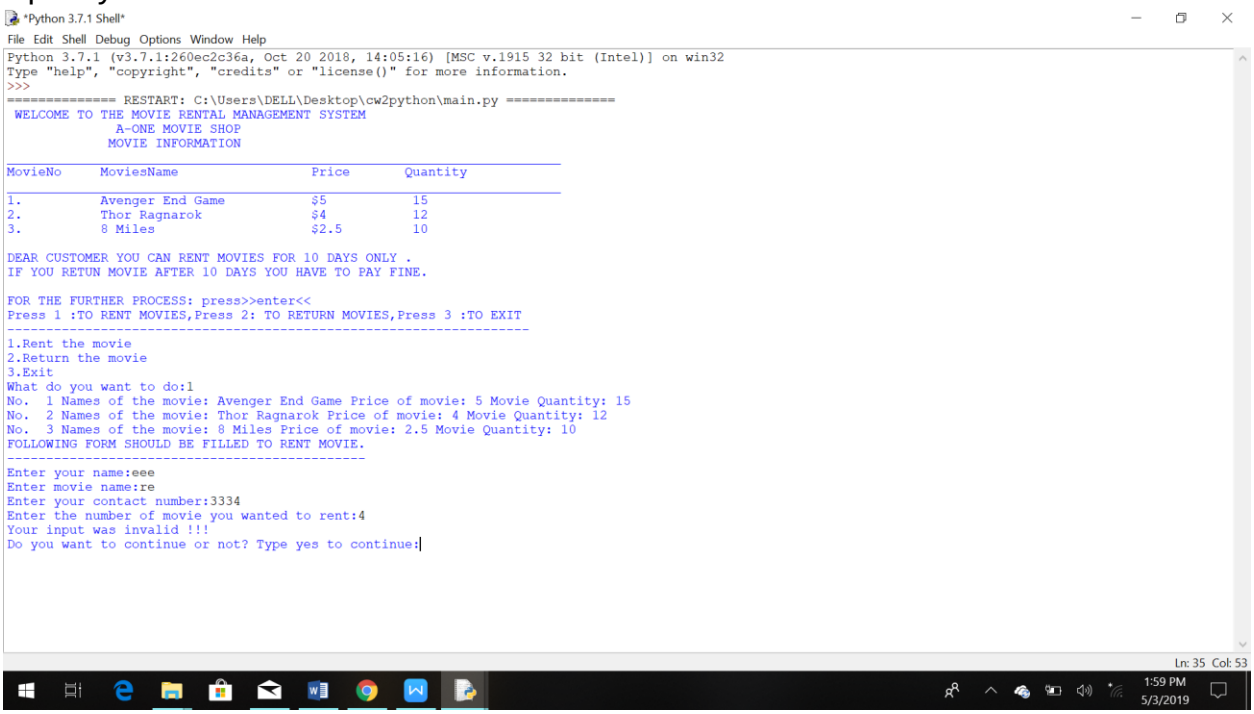
While renting movie (no error)



returning



input syntax error



8. Research

Bibliography

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