Module Code & Module Title

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Student Name: Rohit Ratna Shakya

Group: C5

London Met ID: 21049578

College ID: NP01CP4A210237

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I confirm that I understand my coursework needs to be submitted online via Google Classroom 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.

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Introduction

The final assessment of the coursework was for the development of a Costume Rental System. New algorithms, flowcharts, and pseudocodes were also used to develop the system. In this costume rental system, the user can engage in the software to rent and return costumes from the store.

Python is a popular computer programming language used to create software and websites, automate processes, and analyse data. (Anon., n.d.). Now days, python programming language is the most widely used programming language today for developing software. So, keeping track of the record of various data's can also be done using python. So, most of the people keep track of their records in software's rather than doing it in paper, books. So, with the digitalization of such stores this costume rental system was created. Additionally, the program assists in reducing data redundancy and in keeping track of rented and returned items.

Goals and Objective:

The goals and objective of the coursework are given below

- To get familiar with using IDLE (Integrated Development and Learning Environment).
- To develop a system for a costume rental system.
- To learn to write Algorithms and Pseudocodes.
- To learn to make flowcharts

1. Discussion and Analysis

While doing this coursework, I was entirely new with the Python programming language. Numerous challenges emerged and many errors occurs while doing this coursework. With a lot of research and helps form mentors and my friends, I was able to develop this software. While doing this coursework I used various tools such as IDLE (Integrated Development and Learning Environment), Microsoft-Word and Draw.io.

IDLE (Integrated Development and Learning Environment):

An integrated development environment (IDE) for Python is called IDLE (Integrated Development and Learning Environment). Similar to Python Shell, IDLE is a user-friendly platform which may be used to execute a single source code, as well as to write, edit, and run Python programs. This program was useful while doing the coursework. (Anon., n.d.)

Microsoft-Word:

Microsoft Word is a word processor software which was developed by Microsoft. It allows us to create documents, reports, and letters, and provides features such as spell checking, grammar checking, text formatting, font formatting, etc. This program was very helpful as almost all of the documentation was done here. (Anon., n.d.)

Draw.io

Draw.io is a customized program that we can use to generate custom layouts or select from an automatic layout function when creating diagrams and charts. They offer a wide variety of shapes and several visual components to help you create a unique diagram or chart. (Anon., n.d.)

2. Algorithm

Algorithm is a procedure that is used to solve a problem with specific actions step by step. Algorithms can be expressed as natural languages, programming languages, pseudocode, flowcharts and control tables. (Anon., n.d.)

The algorithm for the given project is given below:

STEP 1: START

STEP 2: Display “Welcome to Our Costume Rental Store”

STEP 3: Display “Choose one of the following options:”

STEP 4: If 1 then display the list of all the costumes and let the user rent the costume.

STEP 5: If 2 then display the list of all the costumes and let the user return the costume according to the list displayed.

STEP 6: If 3 then exit the program with an appropriate message.

STEP 7: If the input does not match from STEP 4, STEP 5, STEP 6 then displays an error message.

STEP 8: After the user input if input value is 1 then display the name of all the costumes with its brand name, price and quantity.

STEP 9: Let the user pick the costume.

STEP 10:

- If the user inputs invalid data, an error message is displayed.
- If the user inputs ‘esc’ then go-to STEP 2
- If the valid data is entered, then the program ask the user for quantity to rent.

STEP 11:

- If the user inputs invalid data, an error message is displayed.
- If the user inputs ‘cancel’ then go-to STEP-2.
- If the user inputs valid data, then, a message saying ‘successfully rented is displayed.’

STEP 12: Asks the user if they want to rent more costumes or not (yes/no).

STEP 13: If input is ‘yes’ then go-to STEP 8.

STEP 14: If the input is ‘no’ then information regarding Name and Contact number is asked and a Bill regarding the rent information is displayed.

STEP 15: Go-to Step 2 after the completion of STEP 14.

STEP 16: If the user input if input value is 2 then display the name of all the costumes and lets the user input the costume number to return.

STEP 17:

- If the user inputs invalid data, an error message is displayed.
- If the user inputs ‘esc’ then go-to STEP 5
- If the valid data is entered, then the program ask the user for quantity to return or to cancel the return process.

STEP 18: After entering the quantity to return a message saying ‘successfully returned’ is displayed.

STEP 19: The program asks the user if they want to return more costumes or not. If invalid data is input then an error message is displayed.

STEP 20: If the user inputs ‘yes’ then go-to STEP 16.

STEP 21: If the user inputs ‘no’ then information like name and contact number with or without a fine a bill is generated.

STEP 22: If the user inputs invalid data, then an error message is displayed.

STEP 23: After the completion of STEP 21, go-to STEP 2

STEP 24: If the user input if input value is 3 then go-to STEP 6.

STEP 25: END

3. Flowchart

A flowchart is a diagram that shows a process individual phases in their proper order. It is a general tool that may be customized for a wide range of uses and used to define a number of processes, including a project plan. (Anon., n.d.)

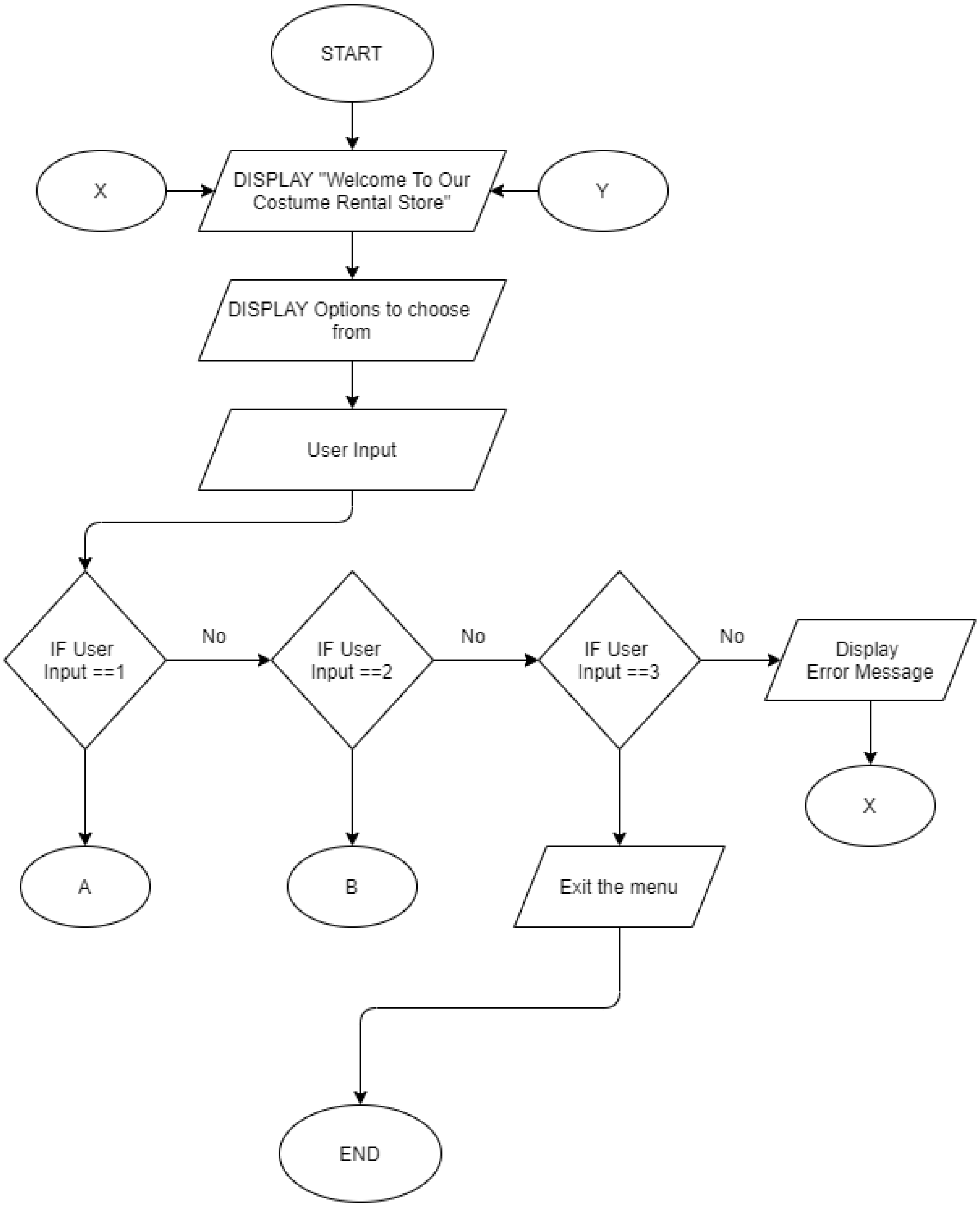


Figure 1: Flowchart of Main File

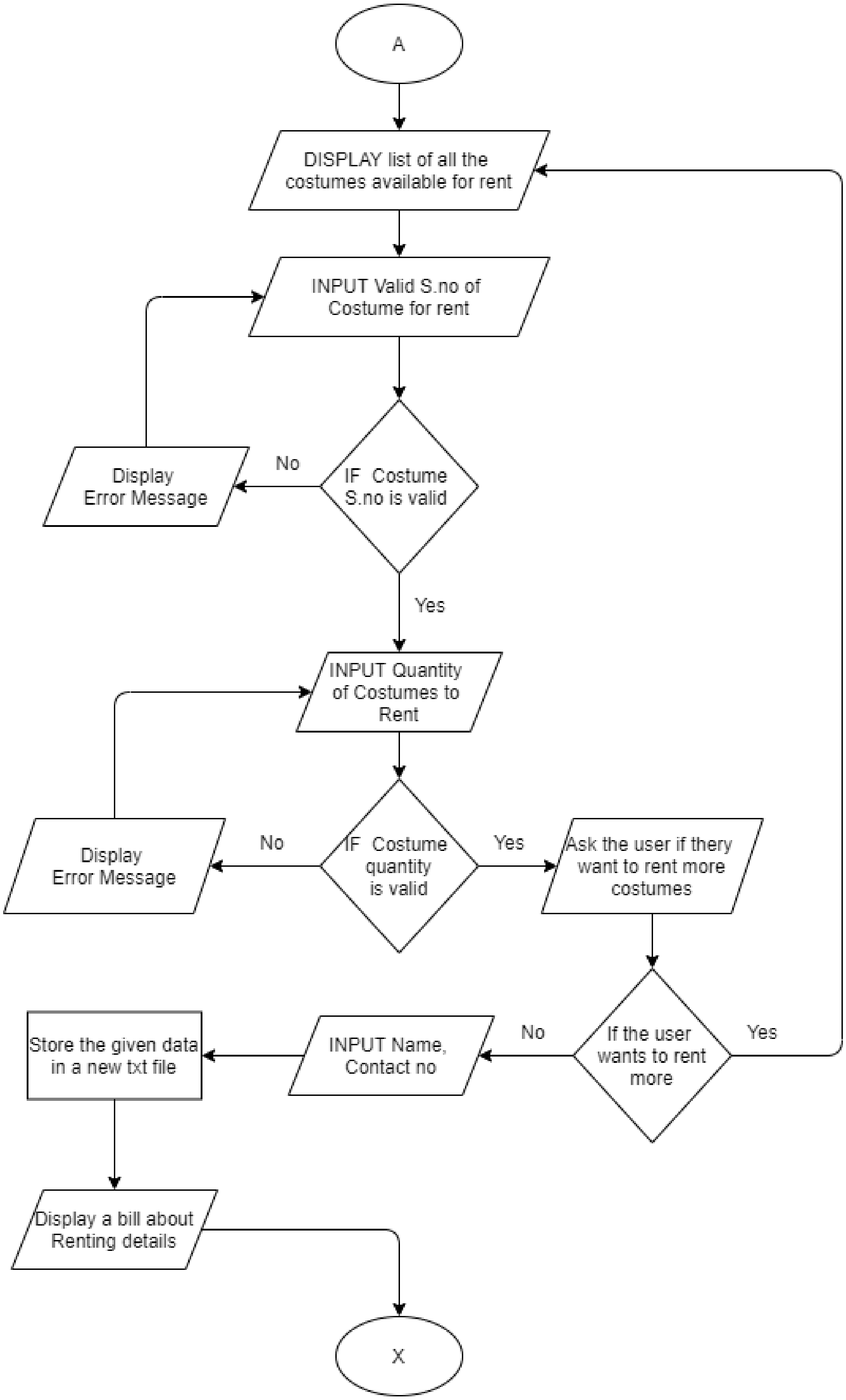

A
DISPLAY list of all the costumes available for rent
INPUT Valid S.no of Costume for rent
IF Costume S.no is valid
No
Display Error Message
Yes
INPUT Quantity of Costumes to Rent
IF Costume quantity is valid
No
Display Error Message
Yes
Ask the user if thery want to rent more costumes
If the user wants to rent more
Yes
No
INPUT Name, Contact no
Store the given data in a new txt file
Display a bill about Renting details
X

Figure 2: Flowchart of Rent File

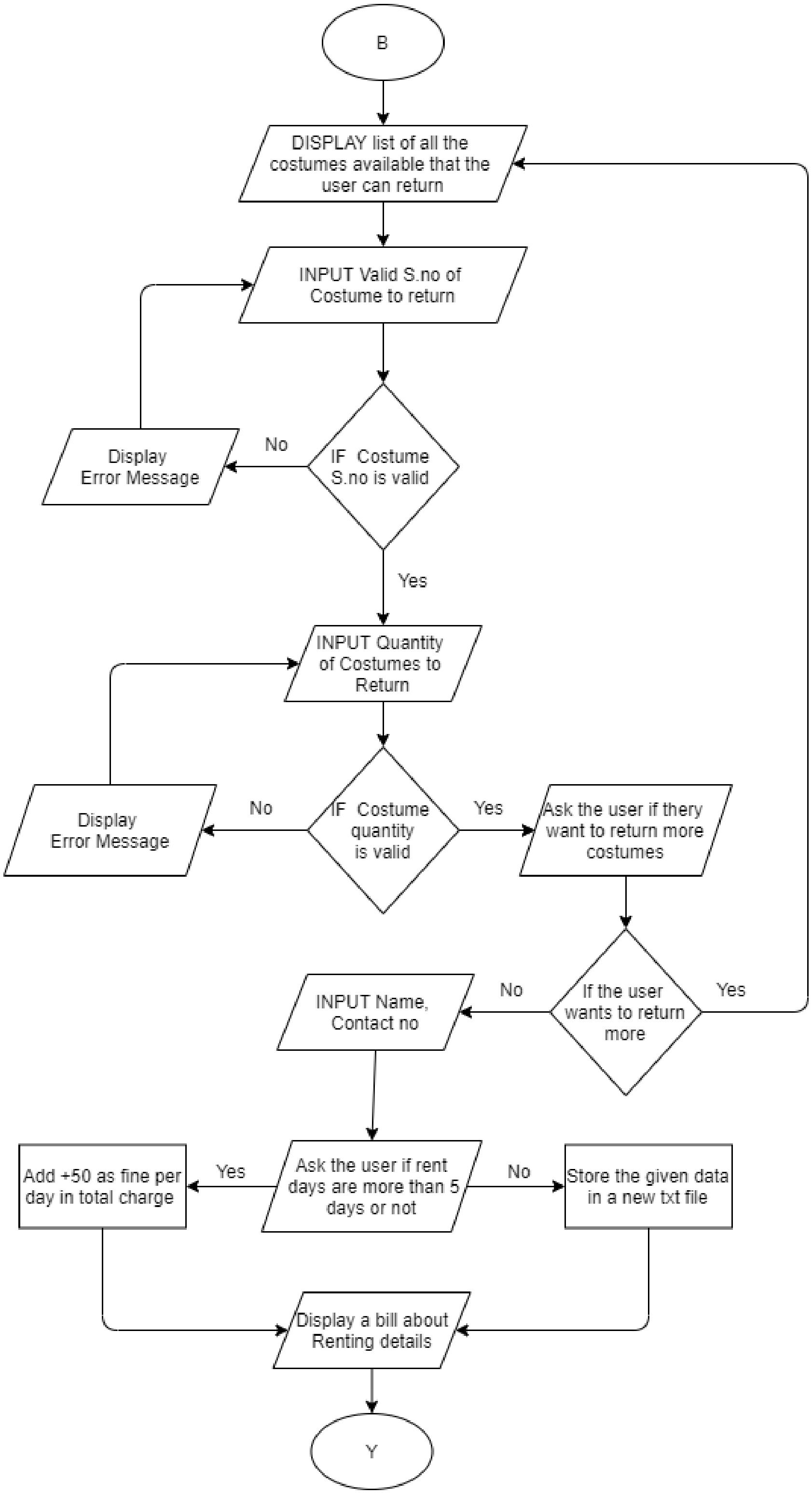

B
DISPLAY list of all the costumes available that the user can return
INPUT Valid S.no of Costume to return
IF Costume S.no is valid
No
Display Error Message
Yes
INPUT Quantity of Costumes to Return
IF Costume quantity is valid
No
Display Error Message
Yes
Ask the user if thery want to return more costumes
If the user wants to return more
Yes
No
INPUT Name, Contact no
Ask the user if rent days are more than 5 days or not
Yes
Add +50 as fine per day in total charge
No
Store the given data in a new txt file
Display a bill about Renting details
Y

Figure 3: Flowchart of Return File

4. Pseudocode

Pseudocode refers to the flexible way of describing programming where the use of specific formal programming languages and syntax are not needed. Simply it is a rough draft of the program itself. It is used as a guideline for programmers for understanding the code pattern in a specific programming language. Keywords such as DECLARE, PASS, ASSIGN, CREATE etc. is used in pseudocode. (Anon., n.d.)

Pseudocode of Main_File.py

```
IMPORT all functions from Date_nd_Time
IMPORT all functions from Rent_Extra
IMPORT all functions from Return_Extra

DEFINE start_message
DO
    DISPLAY Welcome to our costume rental store
END DO

DEFINE choose_options
DO
    DISPLAY Choose one of the following options
    DISPLAY Would you like to rent the costume?    (1)
    DISPLAY Would you like to return the costume?  (2)
     DISPLAY Would you like to exit the program?    (3)
END DO

DEFINE user_end_message
DO
    DISPLAY Thank you message
END DO
```

```
DEFINE startOptions
DO

INITIALIZE Boolean loop as True
WHILE Boolean is true
DO
    CALL start_message
    CALL choose_options

    TRY
    DO

        DECLARE usr_input as an int input

        IF usr_input is equal to 1
        DO
            CALL function rent()
        END DO
        END IF

        ELSE IF usr_input is equal to 2
        DO
            CALL function ret()
        END DO
        END IF
        ELSE IF usr_input is equal to 3
        DO
            CALL user_end_message
            SET Boolean as False
        END DO
        END IF

        ELSE
        DO
            DISPLAY Invalid Input
        END DO

    END DO

    EXCEPT
    DO
        DISPLAY error message
    END DO

END DO

CALL startOptions
```

Pseudocode of Rent_Extra.py

```
IMPORT os
IMPORT all functions from Date_nd_Time

DEFINE function print_Costumes
DO
CALL function get_costume_txt_file and set it to new variable
CALL function main_data and set it to new variable

DISPLAY headings of the costume table

    FOR data stored in main_data
    DO
        DISPLAY values corresponding to the main_data
    END DO
END DO

DEFINE function get_valid_syno
DO
INITIALIZE boolean val_data as False
WHILE Boolean is false

TRY
DO
    INPUT new variable syno as input

    IF syno is equals to “esc”
        DO
            RETURN esc
        END DO
    END IF
```

```
        ELSE IF syno is not ‘esc’
        DO
            INITIALIZE syno as int datatype

            IF syno is less or greater than 0 than that of length of main_data
                DO
                    SET Boolean as True
                    RETURN syno
                END DO
            END IF

            ELSE
                DISPLAY Invalid message
            END DO
            END IF
        END DO

    EXCEPT
    DO
        DISPLAY error message
    END DO
END DO

DEFINE function get_valid_qnty
DO
    INITIALIZE Boolean val_data as False
    WHILE Boolean is False
    DO
        TRY
        DO
```

```
INITIALIZE qnty as input
IF qnty is not equal to "cancel"
DO
    INITIALIZE qnty as int data type
END DO
END IF

ELSE
DO
    RETURN no
END DO

FOR values stored in main_data
DO
    IF key is equal to syno
    DO
        SET Boolean as true
        DISPLAY successfully rented message
        APPEND sno and quantity in cart1
        RETURN qntty
    END DO
    END IF

    ELSE IF qnty is less than value 3 of main_data
    DO
        DISPLAY we do not have enough message
    END DO
    END IF
```

```
                ELSE
                    DISPLAY error message
                END DO
            END DO

        EXCEPT
            DO
                DISPLAY Invalid message
            END DO
    END DO
END DO

DEFINE function write_fnc_rent0
DO
    TRY
    DO
        CONVERT main_data to string after subtracting rented quantity
        OPEN costume.txt file in write mode
        FOR values in main_data
        DO
            DECLARE new variable of main_data
            WRITE the values in text file
        CLOSE costume.txt file
        END DO
    END DO

    EXCEPT
    DO
        RETURN
    END DO
END DO
```

```
DEFINE function extra_rent
DO
    INITIALIZE bTotal as 0
    DISPLAY do you want to message
    CALL function print_Costumes
    CALL function get_valid_syno

    IF syno is equal to esc
    DO
        RETURN
    END DO
    END IF

    ELSE IF syno is not equal esc
    DO
        CALL function get_valid_qnty
        IF qnty is equal to “no”
        DO
            RETURN rent
        END DO
        END IF

        ELSE
            CALL function write_fnc_rent
            DECLARE Boolean loop as True
            WHILE Boolean is true
            DO
                INITIALIZE new variable Extra_rent as input
                IF extra_rent is no
                DO
                SET Boolean as False
                INPUT enter your name
                INPUT Enter contact number
                DECLARE path for newtxtfile
                OPEN newtxtfile in write mode
                WRITE messages in txt file

                FOR index in range of box
                DO
                    DECLARE new variables and store values
                    from main data and calculate total price
                    WRITE all values in newtxtfile
                END DO

                CLOSE newtxtfile

                OPEN previous newtxtfile in read mode
                DISPLAY file bill
                CLOSE file

            END DO
            END IF

            ELSE IF extra_rent is equal to “yes”
            DO
                DISPLAY select more message
                CALL print_costume
                CALL get_valid_syno

                IF syno is equal to “escl”
                DO
```

```
        SET Boolean as False
    INPUT enter your name
    INPUT Enter contact number
    DECLARE path for newtxtfile
    OPEN newtxtfile in write mode
    WRITE messages in txt file

    FOR index in range of box
    DO
        DECLARE new variables and store values
        from main data and calculate total price
        WRITE all values in newtxtfile
    END DO

    CLOSE newtxtfile

    OPEN previous newtxtfile in read mode
    DISPLAY file bill
    CLOSE file

END DO
END IF

    ELSE IF syno is not equal to “esc”
    DO
        CALL get_valid_qnty
        CALL write_fnc_rent
ELSE
DO
    DISPLAY error message
END DO
```

```
            END DO
    END DO
    END IF
END DO

DEFINE function rent
DO
    DECLARE box and INITIALIZE an empty list
    DECLARE new variables and call functions
    CALL function extra_rent
END DO
```

Pseudocode of Return File:

```
IMPORT all functions from Date_nd_Time
IMPORT os

DEFINE function print_return_costumes
DO
CALL function get_costume_txt_file and set it to new variable
CALL function main_data and set it to new variable

DISPLAY headings of the costume table for return only.

    FOR data stored in main_data
    DO
        DISPLAY values corresponding to the main_data
    END DO
END DO

DEFINE function get_return_syno
DO
INITIALIZE boolean val_data as False
WHILE Boolean is false

TRY
DO
    INPUT new variable return_syno as input

    IF return_syno is equals to “esc”
        DO
            RETURN esc
        END DO
        END IF

        ELSE IF return_syno is not ‘esc’
        DO
            INITIALIZE return_syno as int datatype

            IF return_syno is less or greater than 0 than that of length of
            main_data
                DO
                    SET Boolean as True
                    RETURN return_syno
                END DO
            END IF

            ELSE
                DISPLAY Invalid message
            END DO
            END IF
        END DO

    EXCEPT
    DO
        DISPLAY error message
    END DO
END DO

DEFINE function get_return_qnty
DO
    INITIALIZE Boolean val_data as False
    WHILE Boolean is False
    DO
```

```
TRY
DO
    INITIALIZE return_qnty as input
    IF return_qnty is not equal to “cancel”
    DO
        INITIALIZE return_qnty as int data type
    END DO
    END IF

    ELSE
    DO
        RETURN no
    END DO

    FOR values stored in main_data
    DO
        IF key is equal to return_syno
        DO
            SET Boolean as true
            DISPLAY successfully rented message
            APPEND return_sno and quantity in cart1
            RETURN return_qntty
        END DO
        END IF

        ELSE IF return_qnty is less than value 3 of main_data
        DO
            DISPLAY we do not have enough message
        END DO
        END IF
```

```
                ELSE
                    DISPLAY error message
                END DO
            END DO

        EXCEPT
            DO
                DISPLAY Invalid message
            END DO
    END DO
END DO

DEFINE function write_fnc_return0
DO
    TRY
    DO
        CONVERT main_data to string after subtracting rented quantity
        OPEN costume.txt file in write mode
        FOR values in main_data
        DO
            DECLARE new variable of main_data
            WRITE the values in text file
        CLOSE costume.txt file
        END DO
    END DO

    EXCEPT
    DO
        RETURN
    END DO
END DO

DEFINE function extra_return
DO
    INITIALIZE bTotal as 0
    DISPLAY do you want to message
    CALL function print_ return_costumes
    CALL function get_return_syno

    IF return_syno is equal to esc
    DO
        RETURN
    END DO
    END IF

    ELSE IF return_syno is not equal esc
    DO
        CALL function get_return_qnty
        IF return_qnty is equal to “no”
        DO
            RETURN ret
        END DO
        END IF

        ELSE
            CALL function write_fnc_return
            DECLARE Boolean loop as True
            WHILE Boolean is true
            DO
                INITIALIZE new variable Extra_return as input
```

```
IF extra_return is no
DO
    SET Boolean as False
    INPUT enter your name
    INPUT Enter contact number
    INPUT ask if its past the rent due date as new
    variable no.days
        IF no.days=yes
        DO
            DECLARE fine as 50 times no.days
            DECLARE total price as total plus fine
        END DO

    DECLARE path for newtxtfile
    OPEN newtxtfile in write mode
    WRITE messages in txt file

    FOR index in range of box
    DO
        DECLARE new variables and store values
        from main data and calculate total price
        WRITE all values in newtxtfile
    END DO

    CLOSE newtxtfile

    OPEN previous newtxtfile in read mode
    DISPLAY file bill
    CLOSE file
```

```
ELSE:

    SET Boolean as False
    INPUT enter your name
    INPUT Enter contact number
    INPUT ask if its past the rent due date as new
    variable no.days
    DECLARE path for newtxtfile
    OPEN newtxtfile in write mode
    WRITE messages in txt file

    FOR index in range of box
    DO
        DECLARE new variables and store values
        from main data and calculate total price
        WRITE all values in newtxtfile
    END DO

    CLOSE newtxtfile

    OPEN previous newtxtfile in read mode
    DISPLAY file bill
    CLOSE file

END DO
END IF

ELSE IF extra_return is equal to “yes”
DO
    DISPLAY select more message
```

```
          CALL print_return_costume
          CALL get_return_syno

          IF syno is equal to “escl”
          DO
              SET Boolean as False
          INPUT enter your name
          INPUT Enter contact number
          DECLARE path for newtxtfile
          OPEN newtxtfile in write mode
          WRITE messages in txt file

          FOR index in range of box
          DO
              DECLARE new variables and store values
              from main data and calculate total price
              WRITE all values in newtxtfile
          END DO

          CLOSE newtxtfile

          OPEN previous newtxtfile in read mode
          DISPLAY file bill
          CLOSE file

      END DO
      END IF

          ELSE IF return_syno is not equal to “esc”
          DO
              CALL get_return_qnty
```

```
                        CALL write_fnc_return
                ELSE
                DO
                    DISPLAY error message
                END DO

            END DO
    END DO
    END IF
END DO

DEFINE function ret
DO
    DECLARE box and INITIALIZE an empty list
    DECLARE new variables and call functions
    CALL function extra_return
END DO
```

5. Data Structures

A data structure is a way to storage that is used to organize and store data. It is a method of setting up data on a computer to make it easily accessible and up to date. Additionally, it is used for data processing, retrieval, and archiving. Almost all programs and software systems that have been built with numerous basic and complex forms of data structures. Data values, relationships, and, occasionally, data functions that may be used on the data are all described in detail by each data structure. (Anon., n.d.)

The following are the data structures used in the program:

- **Integers:**
  All whole numbers which are both positive and negative numbers are represented as integers. It is also a primitive data type. (Anon., n.d.)
- **String:**
  String a collection of characters which is stored in a program. String is a data type like integer which stores text in the program. (Anon., n.d.)
- **Boolean**
  Boolean is also a data type where the notions of true and false are represented by the logical data type. The data type is commonly used to create loops and check conditions in the programming (Anon., n.d.)

- **Sets**
  A set is a type of data structure that keeps distinct items of the same type arranged in ascending order. (Anon., n.d.)

- **Dictionary**
  An ordered collection which is also changeable and does not allow redundancy is known as Dictionary. (Anon., n.d.)

- **List**

  A list is an adaptable, arranged grouping of informational items. A list can include a variety of items, unlike an array, which can only include objects of one kind. (Anon., n.d.)

6. Program Description

The Costume Rental Program was created by dividing all the codes into four parts for simpler understanding and also for a proper layout management.
The four parts of codes are stored in the following file name written below:

i. Main_File.py
ii. Rent_Extra.py
iii. Return_Extra.py
iv. Date_nd_Time.py

Main_File.py:

It is the main file of the Costume Rental System. This file compiles all of the other files and call all of their function. The main file contains the main menu ani the first interactive part of the program.

Rent_Extra.py:

This is the second file of the program where all of the activities related to renting costume is written. Here after the user inputs the option to rent, the program written in the following file will run. Also, the bill generation after renting costumes takes place within this file

Return_Extra.py:

This is the third file of the program where all the activities related to returning of the costume is written. Here after the user inputs the option to return costumes, the program written in the following file will run. Also, the bill generation with or without fine is generated within this file.

Date_nd_Time.py:

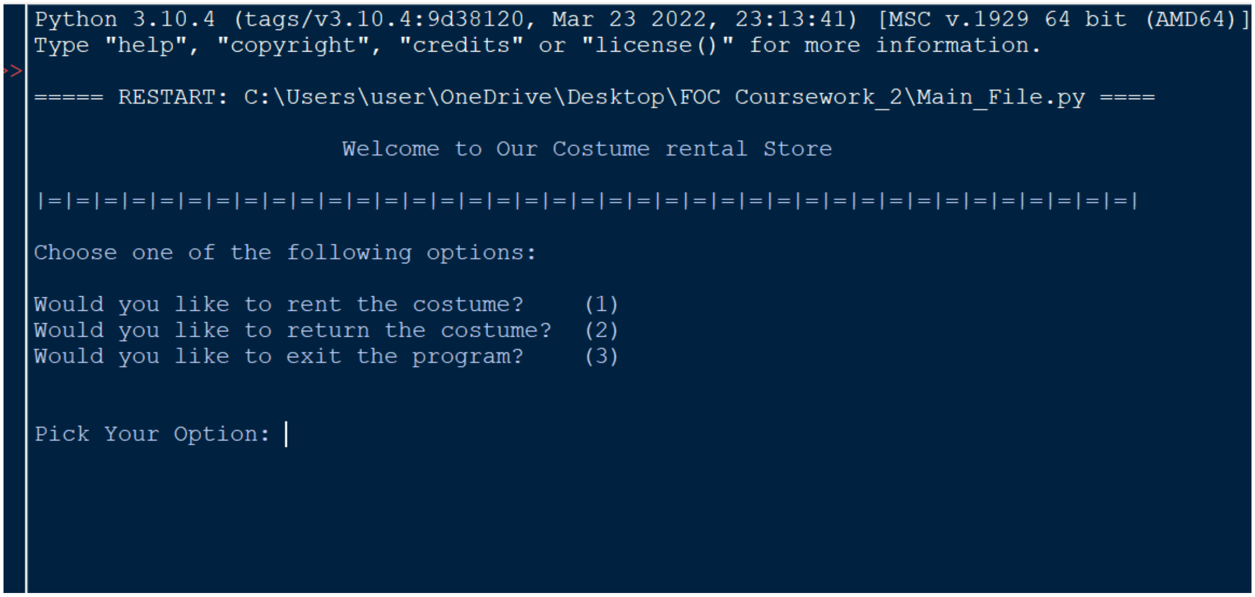
This is the file where the program of date and time which is to be printed on the bill is written.

7. Testing

Test 1: Show Implementation of try, except

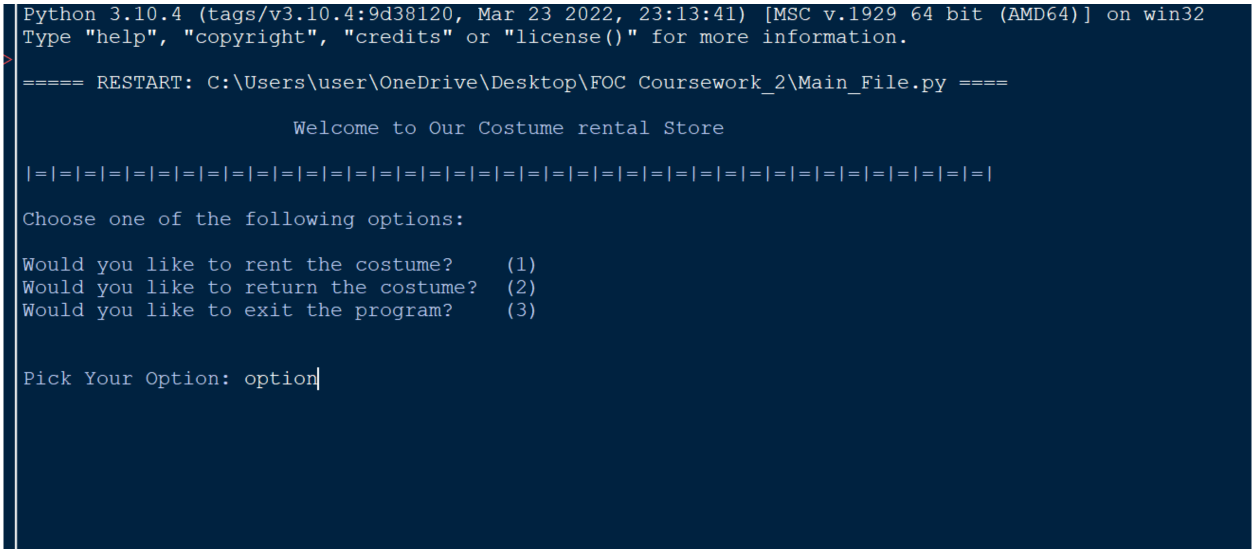
Objectives	To show the implementation of try, except
Actions	Enter any value instead of valid inputs when ‘Pick your option’ is displayed
Expected Results	Error message should be shown, and program will be in loop
Actual Result	Error message saying “The following input is invalid” is shown, and program is still in loop.
Conclusion	Test 1 is successful.

Table 1: Test 1: Show Implementation of try, except



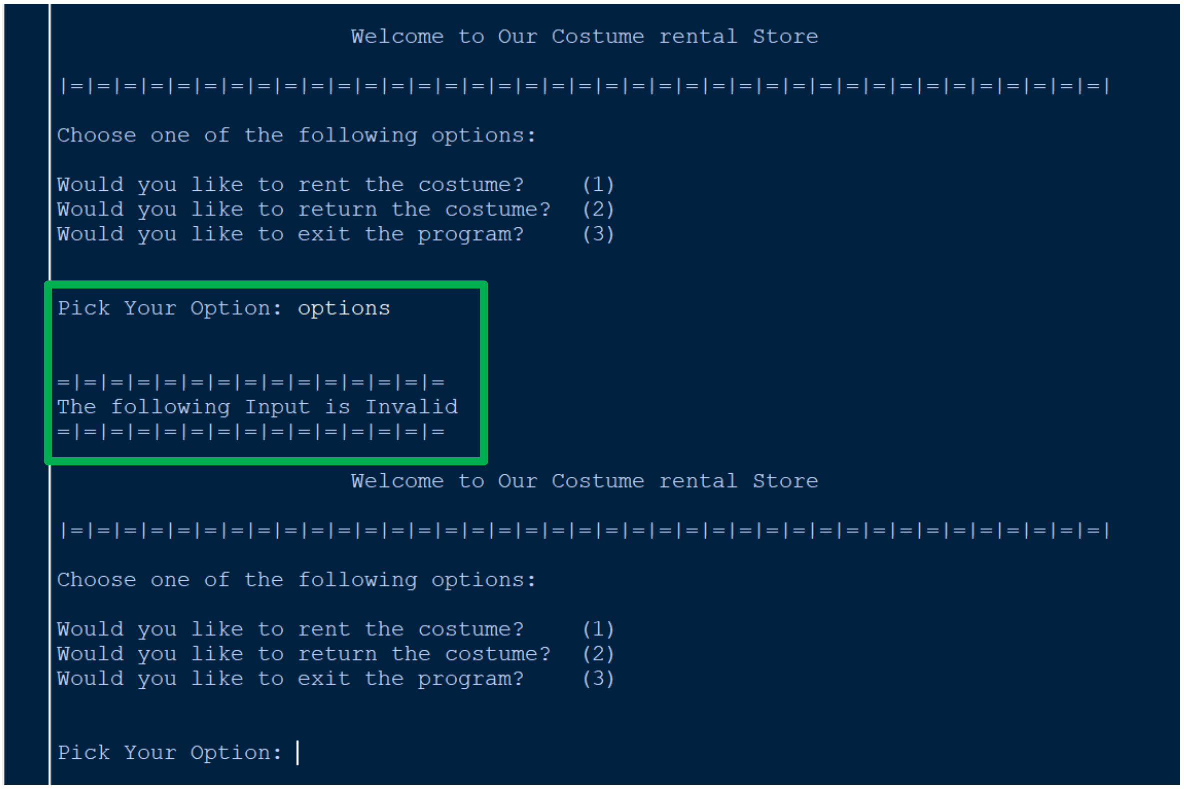
```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)]
Type "help", "copyright", "credits" or "license()" for more information.

===== RESTART: C:\Users\user\OneDrive\Desktop\FOC Coursework_2\Main_File.py ====

                      Welcome to Our Costume rental Store

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|

Choose one of the following options:

Would you like to rent the costume?    (1)
Would you like to return the costume?  (2)
Would you like to exit the program?    (3)


Pick Your Option: 
```

Figure 4: Running program in IDLE and providing section to Input



```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

===== RESTART: C:\Users\user\OneDrive\Desktop\FOC Coursework_2\Main_File.py ====

                      Welcome to Our Costume rental Store

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|

Choose one of the following options:

Would you like to rent the costume?    (1)
Would you like to return the costume?  (2)
Would you like to exit the program?    (3)


Pick Your Option: option
```

Figure 5: Entering Invalid Input in the program



```
                      Welcome to Our Costume rental Store

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|

Choose one of the following options:

Would you like to rent the costume?    (1)
Would you like to return the costume?  (2)
Would you like to exit the program?    (3)


Pick Your Option: options


=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
The following Input is Invalid
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
                      Welcome to Our Costume rental Store

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|

Choose one of the following options:

Would you like to rent the costume?    (1)
Would you like to return the costume?  (2)
Would you like to exit the program?    (3)


Pick Your Option: 
```

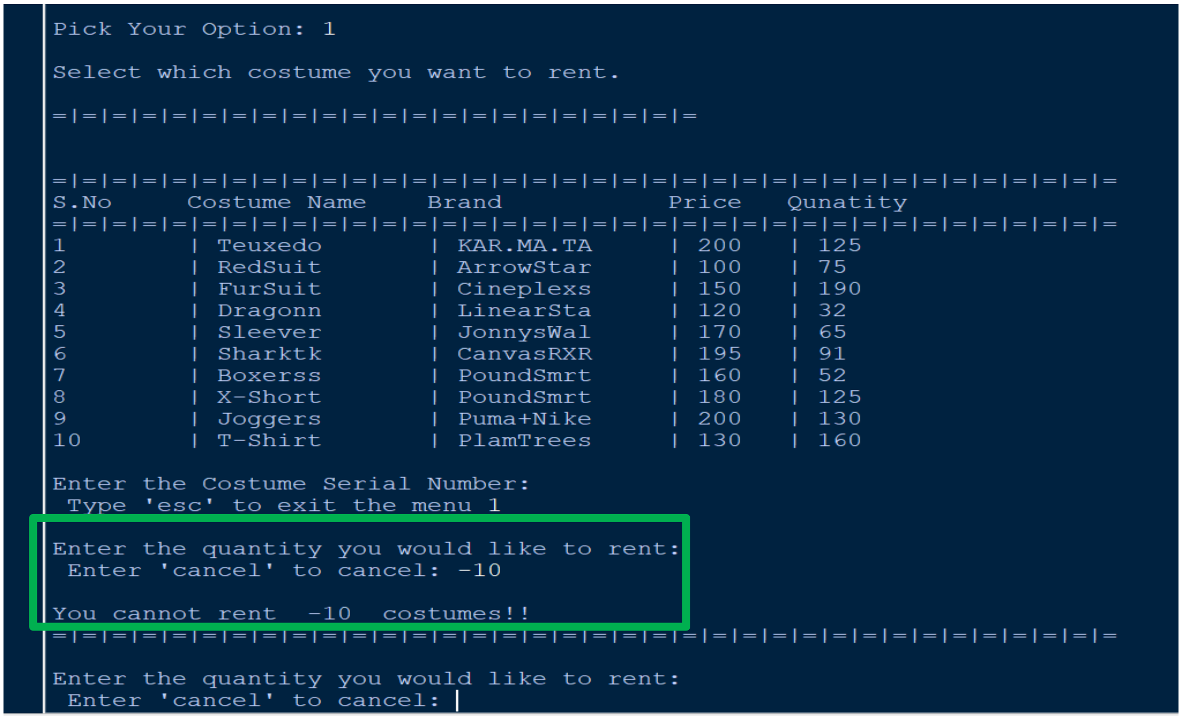
Figure 6: Image of Test 1: Showing Implementation of try, except

Test 2: Selection of Renting and Returning Costume

Test 2.1: Provide negative value as input while Renting costumes.

Objectives	To provide negative value while Renting costumes.
Actions	First chose the option to rent, select the symbol number of costume and then enter a negative input.
Expected Results	An appropriate message must be shown after entering a negative input.
Actual Result	An appropriate message is shown after entering a negative input.
Conclusion	Test 2.1 is successful.

Table 2:Test 2.1: Provide negative value as input while Renting costumes.



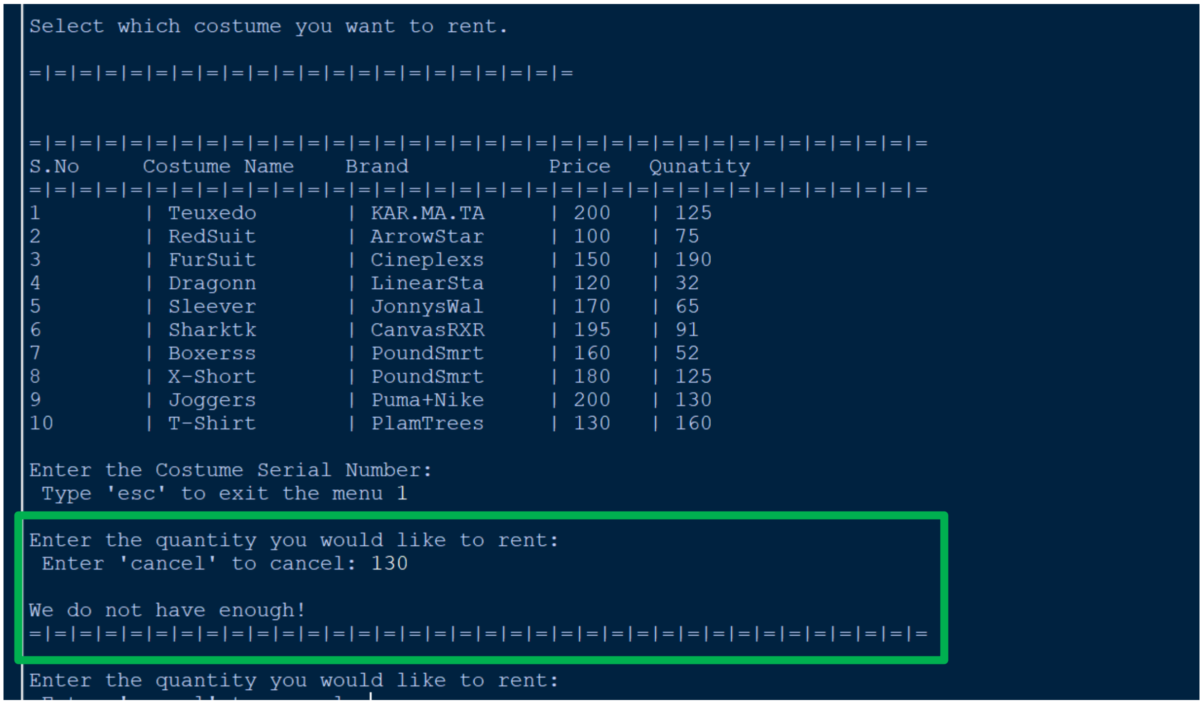
```
Pick Your Option: 1

Select which costume you want to rent.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=


=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name   Brand           Price   Qunatity
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1        | Teuxedo      | KAR.MA.TA     | 200   | 125
2        | RedSuit      | ArrowStar     | 100   | 75
3        | FurSuit      | Cineplexs     | 150   | 190
4        | Dragonn      | LinearSta     | 120   | 32
5        | Sleever      | JonnysWal     | 170   | 65
6        | Sharktk      | CanvasRXR     | 195   | 91
7        | Boxerss      | PoundSmrt     | 160   | 52
8        | X-Short      | PoundSmrt     | 180   | 125
9        | Joggers      | Puma+Nike     | 200   | 130
10       | T-Shirt      | PlamTrees     | 130   | 160

Enter the Costume Serial Number:
 Type 'esc' to exit the menu 1

Enter the quantity you would like to rent:
 Enter 'cancel' to cancel: -10

You cannot rent  -10  costumes!!
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=

Enter the quantity you would like to rent:
 Enter 'cancel' to cancel: |
```

Figure 7: To test negative values while Renting Costumes

Test 2.2: Provide non-existed value as input while Renting costumes.

Objectives	To provide non-existed value while Renting costumes.
Actions	First chose the option to rent, select the symbol number of costume and then enter a non-existing input.
Expected Results	An appropriate message must be shown after entering a non-existed input.
Actual Result	An appropriate message is shown after entering a non-existed input.
Conclusion	Test 2.2 is successful.

Table 3: Test 2.2: Provide non-existed value as input while Renting costumes.



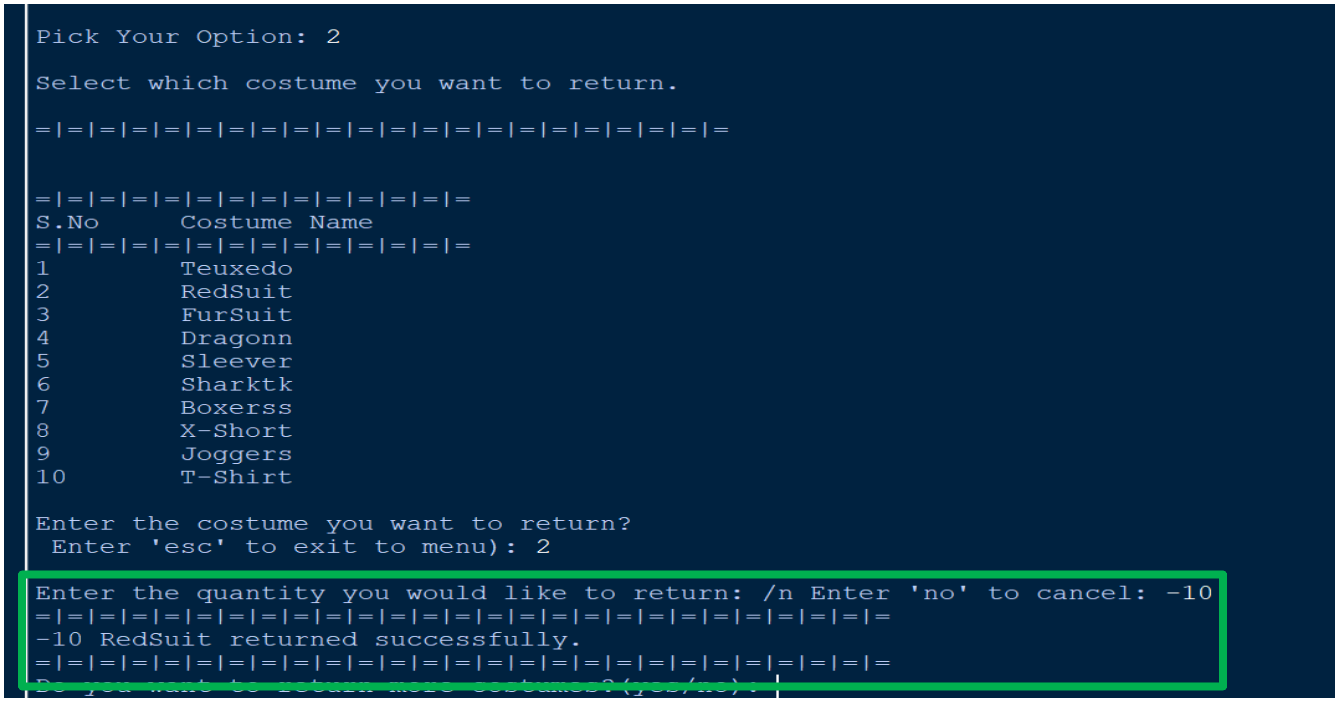
```
Select which costume you want to rent.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=


=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name    Brand           Price   Qunatity
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1         | Teuxedo        | KAR.MA.TA      | 200    | 125
2         | RedSuit        | ArrowStar      | 100    | 75
3         | FurSuit        | Cineplexs      | 150    | 190
4         | Dragonn        | LinearSta      | 120    | 32
5         | Sleever        | JonnysWal      | 170    | 65
6         | Sharktk        | CanvasRXR      | 195    | 91
7         | Boxerss        | PoundSmrt      | 160    | 52
8         | X-Short        | PoundSmrt      | 180    | 125
9         | Joggers        | Puma+Nike      | 200    | 130
10        | T-Shirt        | PlamTrees      | 130    | 160

Enter the Costume Serial Number:
 Type 'esc' to exit the menu 1

Enter the quantity you would like to rent:
 Enter 'cancel' to cancel: 130

We do not have enough!
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=

Enter the quantity you would like to rent:
```

Figure 8: To test non-existing values while Renting Costumes.

Test 2.3: Provide negative value as input while Returning costumes.

Objectives	To provide negative value while Returning costumes.
Actions	First chose the option to return, select the symbol number of costume and then enter a negative input.
Expected Results	An appropriate message must be shown after entering a negative input.
Actual Result	An appropriate message is shown after entering a negative input.
Conclusion	Test 2.3 is successful.

Table 4: Test 2.3: Provide negative value as input while Returning costumes.



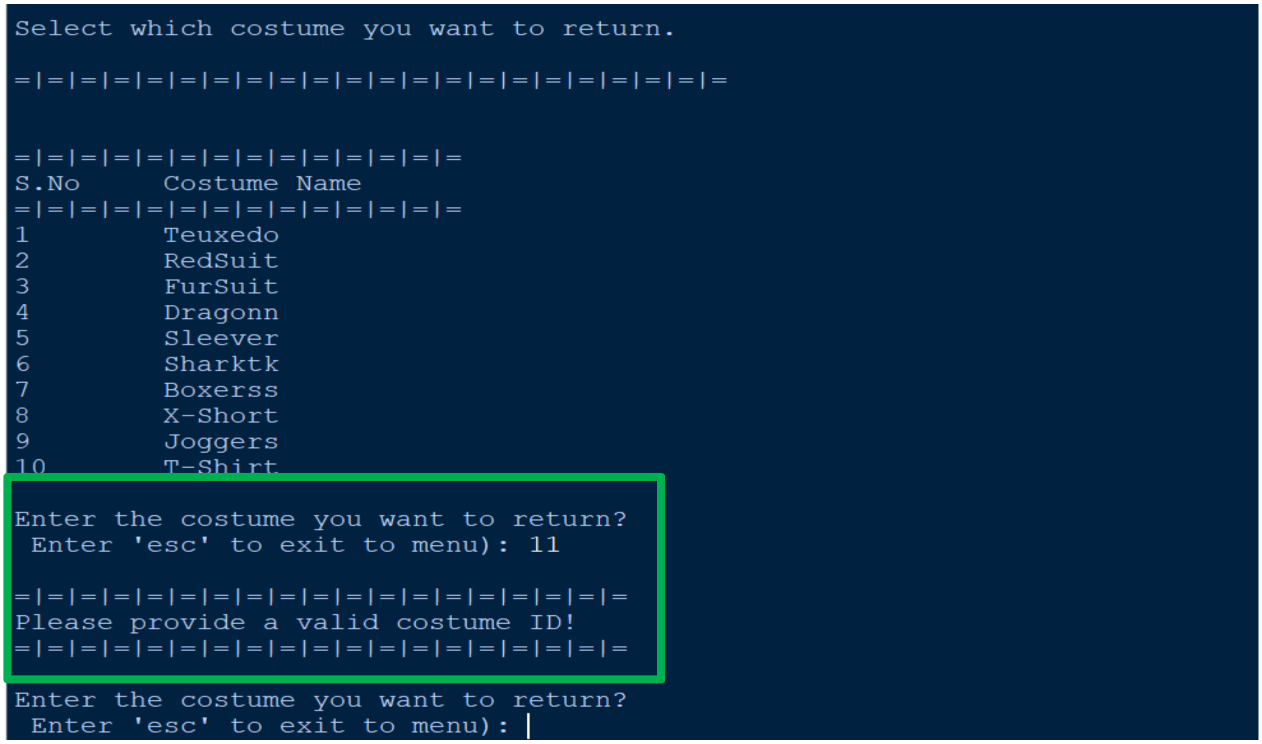
```
Pick Your Option: 2

Select which costume you want to return.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=


=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name
=|=|=|=|=|=|=|=|=|=|=|=|=|=
1        Teuxedo
2        RedSuit
3        FurSuit
4        Dragonn
5        Sleever
6        Sharktk
7        Boxerss
8        X-Short
9        Joggers
10       T-Shirt

Enter the costume you want to return?
 Enter 'esc' to exit to menu): 2

Enter the quantity you would like to return: /n Enter 'no' to cancel: -10
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
-10 RedSuit returned successfully.
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
Do you want to return more costumes?(yes/no):
```

Figure 9: To test negative values while Returning Costumes

Test 2.4: Provide non-existed value as input while Returning costumes**.**

Objectives	To provide non-existed value while Returning costumes.
Actions	First chose the option to return and enter a non-existing symbol number of costume.
Expected Results	An appropriate message must be shown after entering a non-existed input.
Actual Result	An appropriate message is shown after entering a non-existed input.
Conclusion	Test 2.4 is successful.

Table 5: Test 2.4: Provide non-existed value as input while Returning costumes.



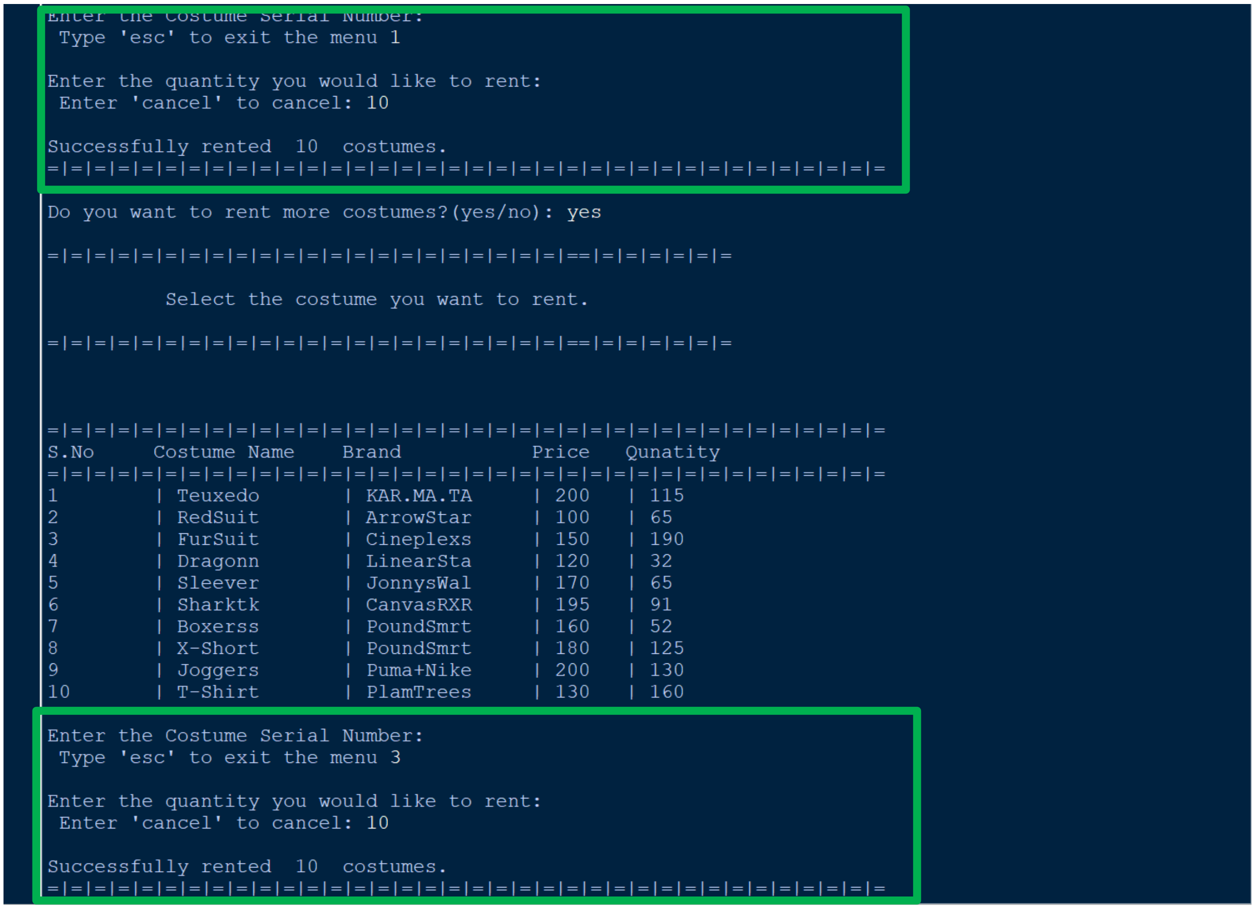
```
Select which costume you want to return.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=


=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No      Costume Name
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1         Teuxedo
2         RedSuit
3         FurSuit
4         Dragonn
5         Sleever
6         Sharktk
7         Boxerss
8         X-Short
9         Joggers
10        T-Shirt

Enter the costume you want to return?
 Enter 'esc' to exit to menu): 11

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
Please provide a valid costume ID!
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=

Enter the costume you want to return?
 Enter 'esc' to exit to menu):
```

Figure 10: To test non-existing values while Returning Costumes.

Test 3: File generation of renting costume (Multiple costume)

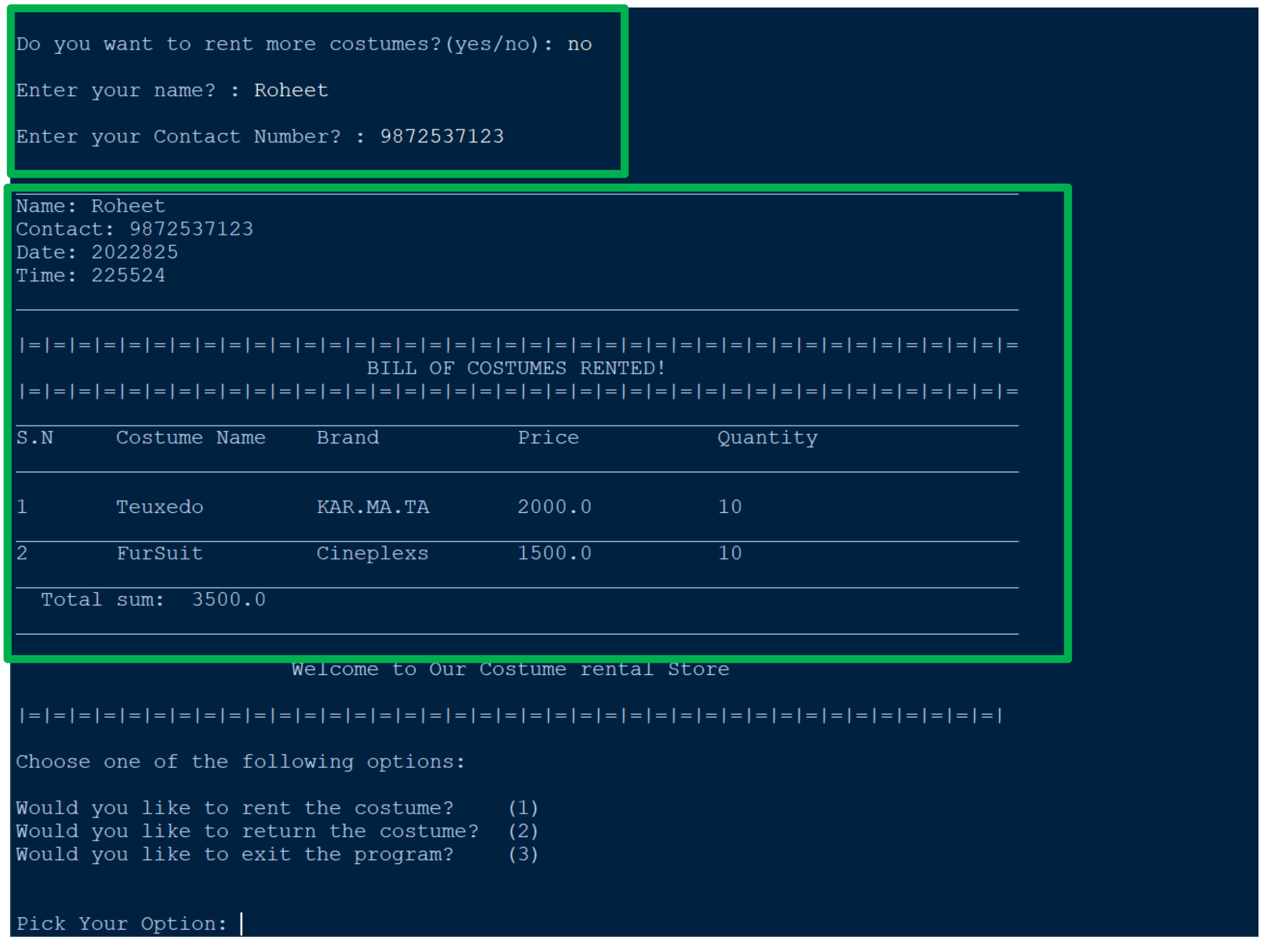
Objectives	To generate new file while renting multiple costumes.
Actions	➢ First choose rent option ➢ Select S.no 1 and put quantity 10. ➢ Choose rent again option ➢ Select S.no 3 and put quantity 5 ➢ Choose not to rent option. ➢ Enter Name and Contact Number.
Expected Results	A bill regarding the multiple renting details must be generated to a new file.
Actual Result	A bill regarding the multiple renting details is be generated to a new file.
Conclusion	The test was successful.

Table 6: File generation of Multiple Renting costume



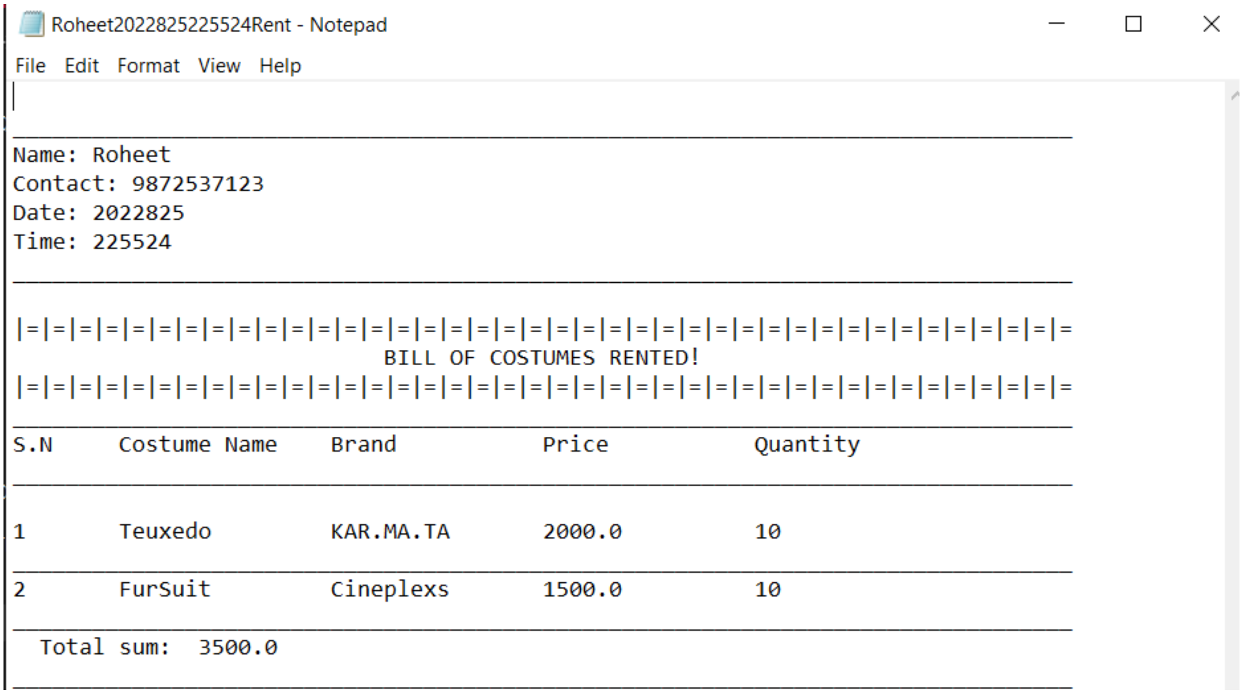
```
Enter the Costume Serial Number:
 Type 'esc' to exit the menu 1

Enter the quantity you would like to rent:
 Enter 'cancel' to cancel: 10

Successfully rented  10  costumes.
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
Do you want to rent more costumes?(yes/no): yes

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=

          Select the costume you want to rent.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=



=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name    Brand           Price   Qunatity
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1        | Teuxedo       | KAR.MA.TA     | 200   | 115
2        | RedSuit       | ArrowStar     | 100   | 65
3        | FurSuit       | Cineplexs     | 150   | 190
4        | Dragonn       | LinearSta     | 120   | 32
5        | Sleever       | JonnysWal     | 170   | 65
6        | Sharktk       | CanvasRXR     | 195   | 91
7        | Boxerss       | PoundSmrt     | 160   | 52
8        | X-Short       | PoundSmrt     | 180   | 125
9        | Joggers       | Puma+Nike     | 200   | 130
10       | T-Shirt       | PlamTrees     | 130   | 160

Enter the Costume Serial Number:
 Type 'esc' to exit the menu 3

Enter the quantity you would like to rent:
 Enter 'cancel' to cancel: 10

Successfully rented  10  costumes.
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
```

Figure 11: Renting Multiple Costumes



```
Do you want to rent more costumes?(yes/no): no

Enter your name? : Roheet

Enter your Contact Number? : 9872537123

Name: Roheet
Contact: 9872537123
Date: 2022825
Time: 225524


|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
                            BILL OF COSTUMES RENTED!
|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=

S.N     Costume Name    Brand           Price           Quantity


1       Teuxedo         KAR.MA.TA       2000.0          10

2       FurSuit         Cineplexs       1500.0          10

  Total sum:  3500.0


                      Welcome to Our Costume rental Store

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|

Choose one of the following options:

Would you like to rent the costume?    (1)
Would you like to return the costume?  (2)
Would you like to exit the program?    (3)


Pick Your Option: 
```

Figure 12: Generation of Bill regarding Multiple Rent details



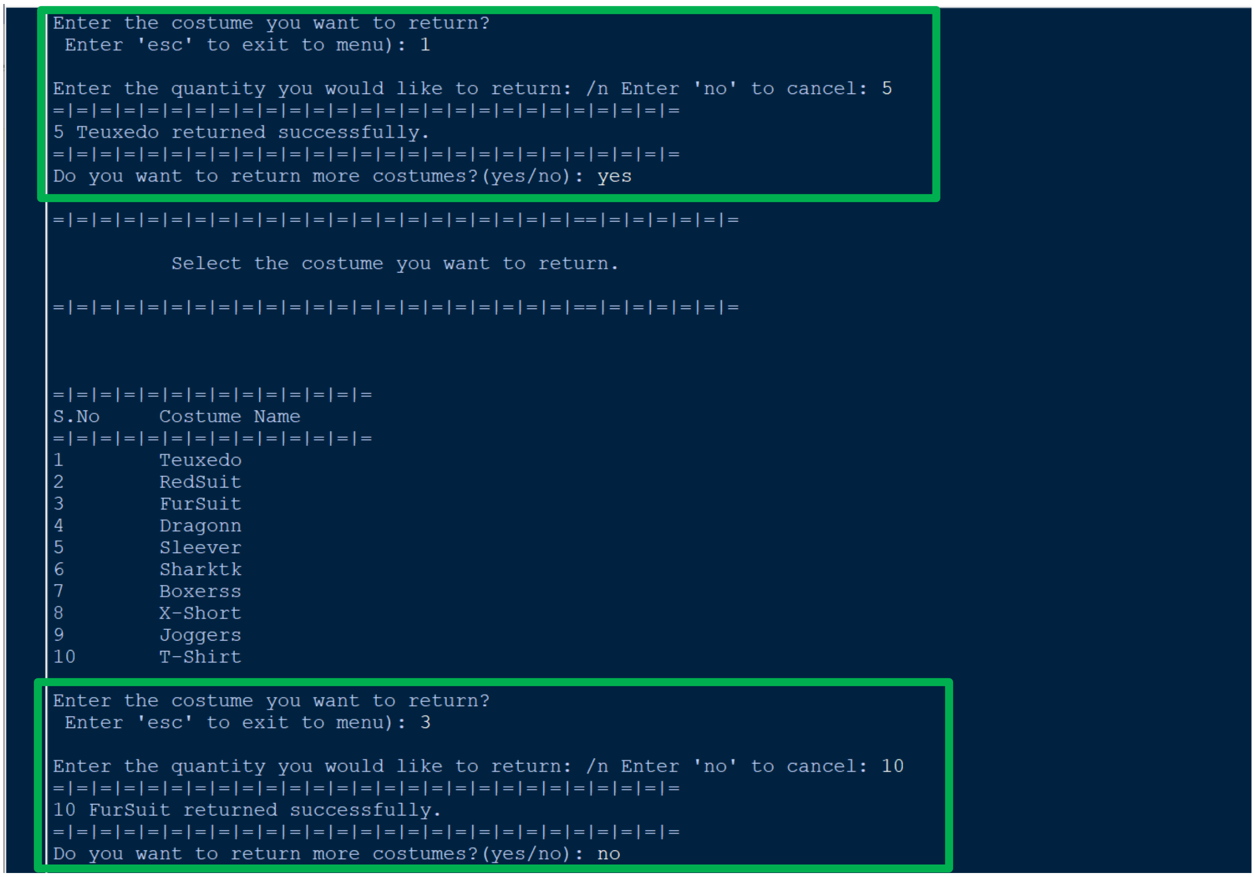
```

________________________________________________________________________________
Name: Roheet
Contact: 9872537123
Date: 2022825
Time: 225524
________________________________________________________________________________

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
                            BILL OF COSTUMES RENTED!
|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
________________________________________________________________________________
S.N     Costume Name    Brand           Price           Quantity
________________________________________________________________________________

1       Teuxedo         KAR.MA.TA       2000.0          10
________________________________________________________________________________
2       FurSuit         Cineplexs       1500.0          10
________________________________________________________________________________
  Total sum:  3500.0
________________________________________________________________________________
```

Figure 13: Bill Generation of Multiple Rent in New text file

Test 4: File generation of returning costume (Multiple costume)

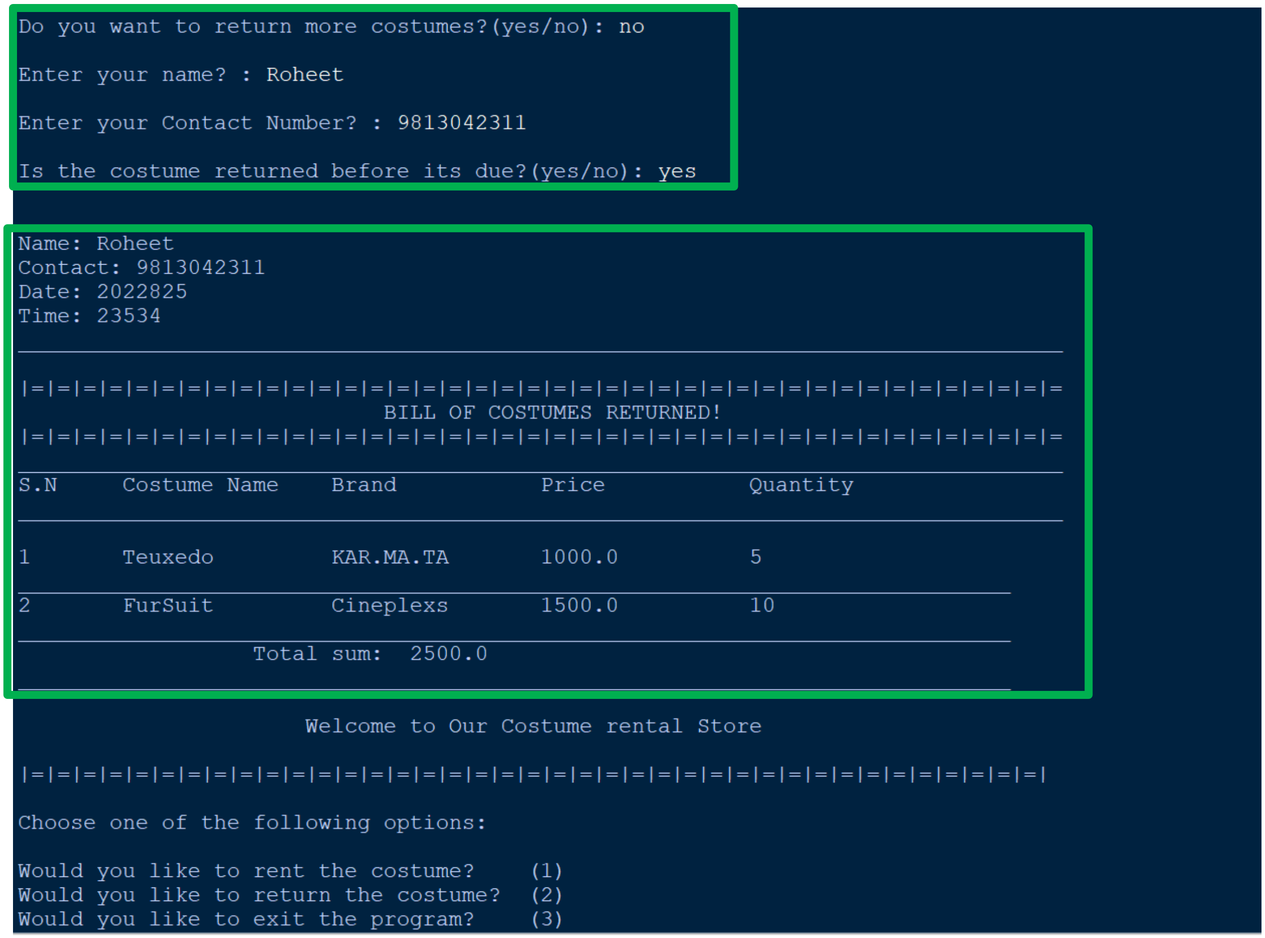
Objectives	To generate new file while returning multiple costumes.
Actions	➢ First choose return option ➢ Select S.no 1 and put quantity 10. ➢ Choose return again option ➢ Select S.no 3 and put quantity 5 ➢ Choose not to return option. ➢ Enter Name and Contact Number. ➢ Input if rented for over its due date.
Expected Results	A bill regarding the multiple returning details must be generated to a new file.
Actual Result	A bill regarding the multiple returning details is be generated to a new file.
Conclusion	The test was successful.

Table 7: File generation of Multiple Returning costume



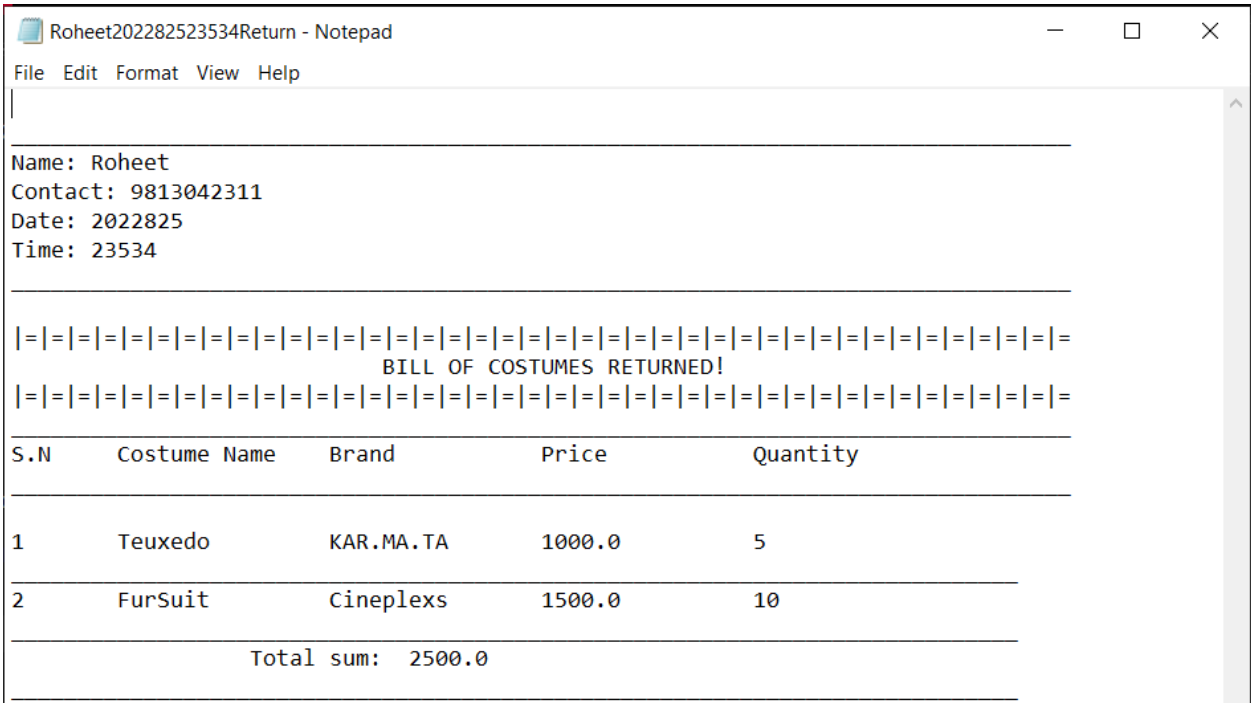
```
Enter the costume you want to return?
 Enter 'esc' to exit to menu): 1

Enter the quantity you would like to return: /n Enter 'no' to cancel: 5
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
5 Teuxedo returned successfully.
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
Do you want to return more costumes?(yes/no): yes
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=

          Select the costume you want to return.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=



=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name
=|=|=|=|=|=|=|=|=|=|=|=|=|=
1        Teuxedo
2        RedSuit
3        FurSuit
4        Dragonn
5        Sleever
6        Sharktk
7        Boxerss
8        X-Short
9        Joggers
10       T-Shirt

Enter the costume you want to return?
 Enter 'esc' to exit to menu): 3

Enter the quantity you would like to return: /n Enter 'no' to cancel: 10
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
10 FurSuit returned successfully.
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
Do you want to return more costumes?(yes/no): no
```

Figure 14: Returning Multiple Costumes



```
Do you want to return more costumes?(yes/no): no

Enter your name? : Roheet

Enter your Contact Number? : 9813042311

Is the costume returned before its due?(yes/no): yes

Name: Roheet
Contact: 9813042311
Date: 2022825
Time: 23534
________________________________________________________________________________

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
                            BILL OF COSTUMES RETURNED!
|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
________________________________________________________________________________
S.N     Costume Name    Brand           Price           Quantity
________________________________________________________________________________

1       Teuxedo         KAR.MA.TA       1000.0          5
____________________________________________________________________________
2       FurSuit         Cineplexs       1500.0          10
____________________________________________________________________________
                  Total sum:  2500.0
____________________________________________________________________________
                      Welcome to Our Costume rental Store

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|

Choose one of the following options:

Would you like to rent the costume?    (1)
Would you like to return the costume?  (2)
Would you like to exit the program?    (3)
```

Figure 15: Generation of Bill regarding Multiple Return details



```

________________________________________________________________________________
Name: Roheet
Contact: 9813042311
Date: 2022825
Time: 23534
________________________________________________________________________________

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
                            BILL OF COSTUMES RETURNED!
|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
________________________________________________________________________________
S.N     Costume Name    Brand           Price           Quantity
________________________________________________________________________________

1       Teuxedo         KAR.MA.TA       1000.0          5
____________________________________________________________________________
2       FurSuit         Cineplexs       1500.0          10
____________________________________________________________________________
                  Total sum:  2500.0
____________________________________________________________________________
```

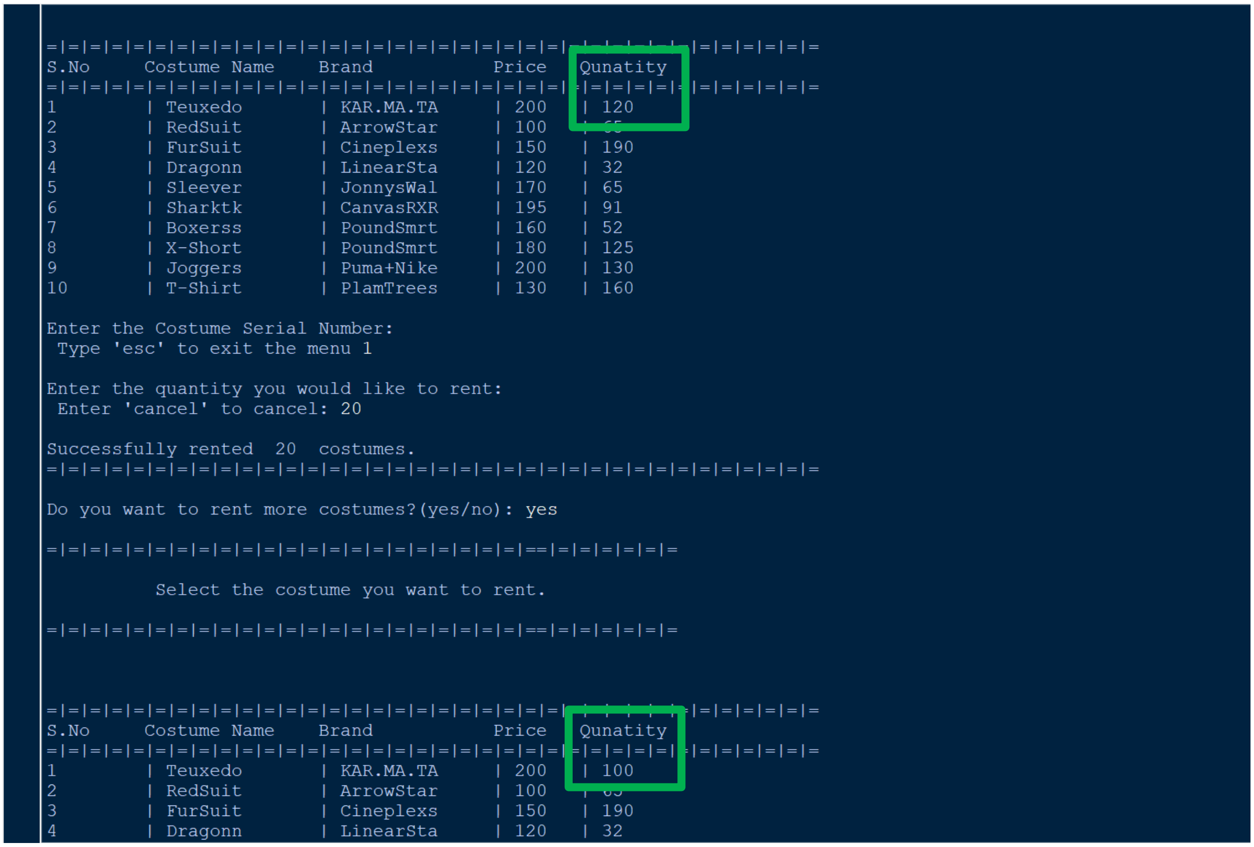
Figure 16: Bill Generation of Multiple Return in New text file

Test 5: Show update in the stock costume

Test 5.1: Showing that the quantity is being deducted while Renting costumes

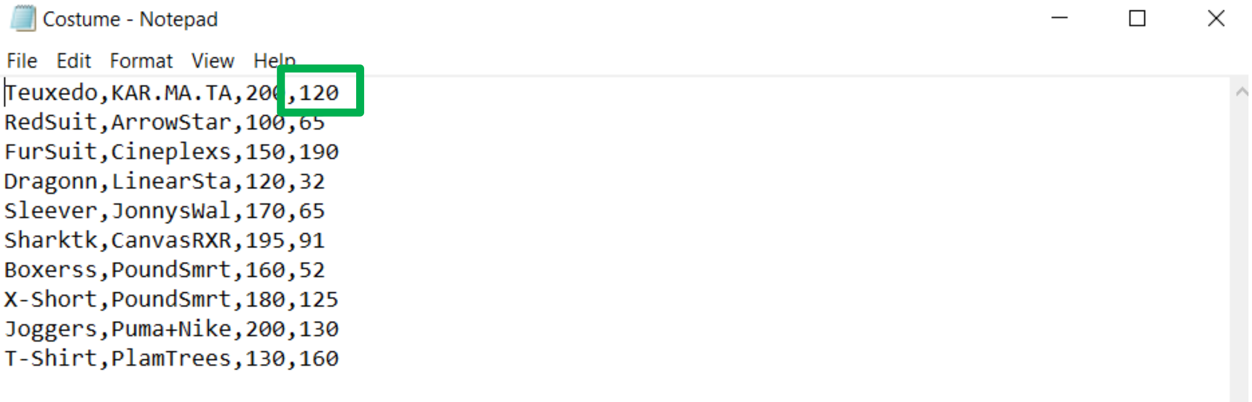
Objectives	To show that the quantity is being deducted while Renting costumes
Actions	➢ First choose the rent option ➢ Choose S.no 1 and put its quantity value. ➢ Choose not to rent option. ➢ Enter Name and Contact Number.
Expected Results	To deduct the value of the quantity of the costume after renting it.
Actual Result	The value of the costume is automatically deducted after renting.
Conclusion	The test was successful.

Table 8:Test 5.1: Showing that the quantity is being deducted while Renting costumes



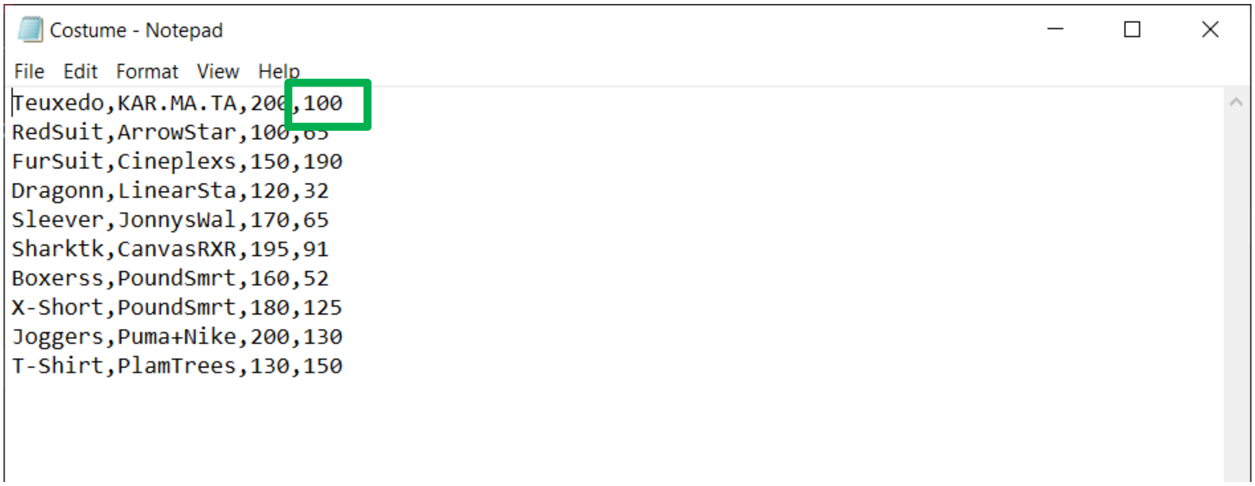
```
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name    Brand            Price    Qunatity
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1         | Teuxedo        | KAR.MA.TA      | 200    | 120
2         | RedSuit        | ArrowStar      | 100    | 65
3         | FurSuit        | Cineplexs      | 150    | 190
4         | Dragonn        | LinearSta      | 120    | 32
5         | Sleever        | JonnysWal      | 170    | 65
6         | Sharktk        | CanvasRXR      | 195    | 91
7         | Boxerss        | PoundSmrt      | 160    | 52
8         | X-Short        | PoundSmrt      | 180    | 125
9         | Joggers        | Puma+Nike      | 200    | 130
10        | T-Shirt        | PlamTrees      | 130    | 160

Enter the Costume Serial Number:
 Type 'esc' to exit the menu 1

Enter the quantity you would like to rent:
 Enter 'cancel' to cancel: 20

Successfully rented  20  costumes.
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=

Do you want to rent more costumes?(yes/no): yes

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=

          Select the costume you want to rent.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=



=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name    Brand            Price    Qunatity
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1         | Teuxedo        | KAR.MA.TA      | 200    | 100
2         | RedSuit        | ArrowStar      | 100    | 65
3         | FurSuit        | Cineplexs      | 150    | 190
4         | Dragonn        | LinearSta      | 120    | 32
```

Figure 17: Showing that the Quantity of costume is automatically deducted after Renting



```
Teuxedo,KAR.MA.TA,200,120
RedSuit,ArrowStar,100,65
FurSuit,Cineplexs,150,190
Dragonn,LinearSta,120,32
Sleever,JonnysWal,170,65
Sharktk,CanvasRXR,195,91
Boxerss,PoundSmrt,160,52
X-Short,PoundSmrt,180,125
Joggers,Puma+Nike,200,130
T-Shirt,PlamTrees,130,160
```

Figure 18: Quantity of costumes before Renting in Text file



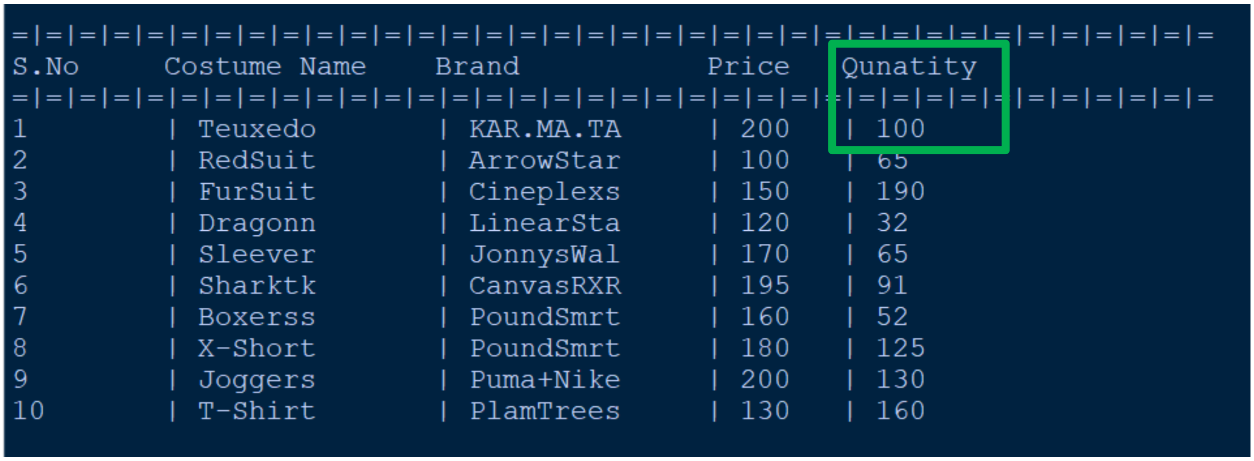
```
Teuxedo,KAR.MA.TA,200,100
RedSuit,ArrowStar,100,65
FurSuit,Cineplexs,150,190
Dragonn,LinearSta,120,32
Sleever,JonnysWal,170,65
Sharktk,CanvasRXR,195,91
Boxerss,PoundSmrt,160,52
X-Short,PoundSmrt,180,125
Joggers,Puma+Nike,200,130
T-Shirt,PlamTrees,130,150
```

Figure 19: Deducted Quantity of costumes after Renting in Text file

Test 5.2: Showing that the quantity is being added while Returning costumes

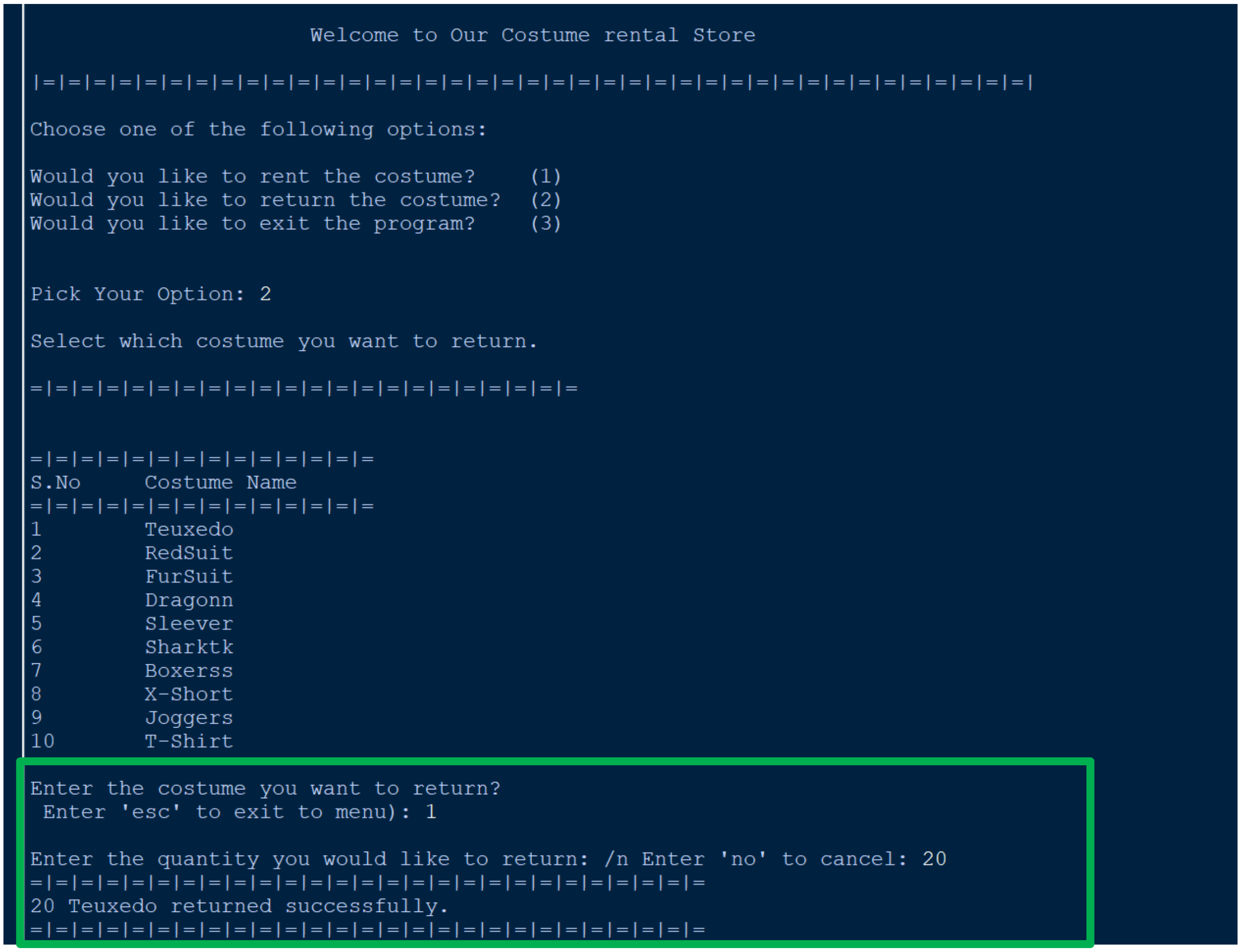
Objectives	To show that the quantity is being added while Returning costumes
Actions	➢ First choose the return option ➢ Choose S.no 1 and put its quantity value. ➢ Choose not to return option. ➢ Enter Name and Contact Number and its due date.
Expected Results	To add the value of the quantity of the costume after returning it.
Actual Result	The value of the costume is automatically add after returning.
Conclusion	The test was successful.

Table 9: Test 5.2: Showing that the quantity is being added while Returning costumes



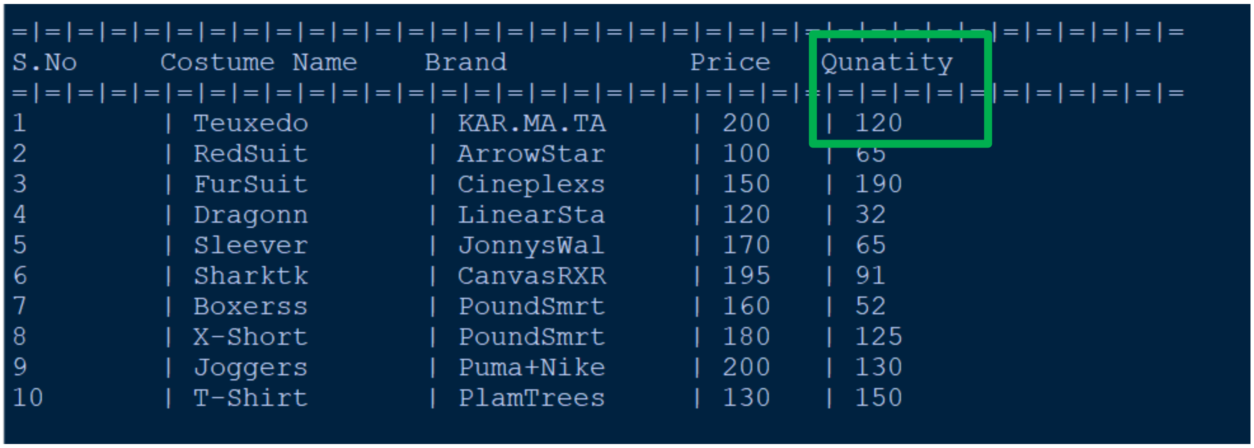
```
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name    Brand           Price   Qunatity
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1        | Teuxedo       | KAR.MA.TA     | 200   | 100
2        | RedSuit       | ArrowStar     | 100   | 65
3        | FurSuit       | Cineplexs     | 150   | 190
4        | Dragonn       | LinearSta     | 120   | 32
5        | Sleever       | JonnysWal     | 170   | 65
6        | Sharktk       | CanvasRXR     | 195   | 91
7        | Boxerss       | PoundSmrt     | 160   | 52
8        | X-Short       | PoundSmrt     | 180   | 125
9        | Joggers       | Puma+Nike     | 200   | 130
10       | T-Shirt       | PlamTrees     | 130   | 160
```

Figure 20: Number of costumes before Returning



```
                      Welcome to Our Costume rental Store

|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|

Choose one of the following options:

Would you like to rent the costume?    (1)
Would you like to return the costume?  (2)
Would you like to exit the program?    (3)


Pick Your Option: 2

Select which costume you want to return.

=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=


=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name
=|=|=|=|=|=|=|=|=|=|=|=|=|=
1        Teuxedo
2        RedSuit
3        FurSuit
4        Dragonn
5        Sleever
6        Sharktk
7        Boxerss
8        X-Short
9        Joggers
10       T-Shirt

Enter the costume you want to return?
 Enter 'esc' to exit to menu): 1

Enter the quantity you would like to return: /n Enter 'no' to cancel: 20
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
20 Teuxedo returned successfully.
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
```

Figure 21: Returning Costumes



```
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
S.No     Costume Name     Brand           Price    Qunatity
=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=
1         | Teuxedo       | KAR.MA.TA      | 200    | 120
2         | RedSuit       | ArrowStar      | 100    | 65
3         | FurSuit       | Cineplexs      | 150    | 190
4         | Dragonn       | LinearSta      | 120    | 32
5         | Sleever       | JonnysWal      | 170    | 65
6         | Sharktk       | CanvasRXR      | 195    | 91
7         | Boxerss       | PoundSmrt      | 160    | 52
8         | X-Short       | PoundSmrt      | 180    | 125
9         | Joggers       | Puma+Nike      | 200    | 130
10        | T-Shirt       | PlamTrees      | 130    | 150
```

Figure 22: Added quantity of costumes after Returning

Conclusion

The following coursework has helped us in learning and understanding a great deal about Python Programming Language. The field of creating a software using python was new to me. There was a lot of new things that were new to us while doing the coursework. The coursework was completed successfully after much research and study on the subject.

The task to create a Costume Rental System may sound simple. But this project for us is newly introduced. So, after a lot of queries and confusion we were able to complete the project. The study work helped us in learning the programming components and operations. Yes, the internet assisted us in our understanding in python, but it was also with the support of our mentors and a few friends that the subject got clearer. Also, via this project we learned how to utilize our time for the specific tasks, which will also be beneficial for our professional life.

After the completion of my project, the use of various features in python became clearer to me. The use of bill transactions also became clear and my understanding on management system also increased. I also learned how effectively we can handle such management system which I believe will also help in my professional sector in the future.

After many research, logical thinking, effort, and time allotted, the coursework was completed. The coursework has improved our skills and knowledge on Python programming language.

Appendix

Main File

```
from Date_nd_Time import *
from Rent_Extra import *
from Return_Extra import *

def start_message():
    print ("")
    print ("                    Welcome to Our Costume rental Store ")
    print ("")
    print("|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|")
#The above function is used to display the starting message of the program.


def choose_options():
    print("")
    print ("Choose one of the following options:")
    print ("")
    print ("Would you like to rent the costume?    (1)")
    print ("Would you like to return the costume?  (2)")
    print ("Would you like to exit the program?    (3)")
    print()
#The above function display the first interactive options that the user can choose.


def user_end_message():
    print ("----------------------------Thank You for you time----------------------------")
#The above function is used to display the following message after the user ends the program.


def startOptions():
    loop = True
    while loop == True:
        start_message()
        choose_options()

        try:
            print("")
            usr_input = int(input("Pick Your Option: "))
            if  usr_input == 1:
                rent_costumes()
            elif  usr_input == 2:
                ret()
            elif  usr_input == 3:
                user_end_message()
                loop = False
            else:
                print("")
                print("Invalid Input!!!")
                print("Chose a valid option!")

        except:
            print("\n")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
            print("The following Input is Invalid")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")



startOptions()
```

Costume Text file

```
Teuxedo,KAR.MA.TA,200,120
RedSuit,ArrowStar,100,65
FurSuit,Cineplexs,150,190
Dragonn,LinearSta,120,32
Sleever,JonnysWal,170,65
Sharktk,CanvasRXR,195,91
Boxerss,PoundSmrt,160,52
X-Short,PoundSmrt,180,125
Joggers,Puma+Nike,200,130
T-Shirt,PlamTrees,130,150
```

Rent Extra File

```
import os
from Date_nd_Time import *

def print_costume():
    costume_txt_file = get_costume_txt_file()
    main_data = get_dictionary(costume_txt_file)
    print("")
    print("")
    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
    print("S.No","\t","Costume Name","\t","Brand","\t\t","Price","\t","Qunatity")
    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
    for key, value in main_data.items():
        print(key,"\t","|",value[0],"\t","|",value[1],"\t","|",value[2],"\t","|",value[3])
#used to display the costumes in the program.

def get_valid_syno(main_data):
    val_data = False
    while val_data == False:

        try:
            print("")
            syno = (input("Enter the Costume Serial Number: \n Type 'esc' to exit the menu 
")).lower()

            if syno == "esc":

                return "esc"
            else:
                syno = int(syno)
                #using Else if to check the userinput.
                if syno > 0 and syno <= len(main_data):
                    val_data = True
                    return syno
                else:
                    print("")
                    print("Please provide a valid costume ID!")
        except:
            print("")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
            print(" Please do not enter the input in Strings. ")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
#Sets the serial number for the costumes.

def get_valid_quantity(main_data, syno,box):
    val_data = False
    while val_data == False:

        try:
            print("")
            qnty = input("Enter the quantity you would like to rent: \n Enter 'cancel' to cancel:
")
            if qnty.lower() != "cancel":
                qnty = int(qnty)

            else:
                return "no"

            for key,value in main_data.items():
                if key == syno:
                    if qnty >=1 and qnty <= int(value[3]):
                        val_data = True
                        print("")
                        print("Successfully rented ", qnty, " costumes.")

print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
                        box.append([syno,qnty])
                        return qnty
                    elif(qnty > int(value[3])):
                        print("")
                        print("We do not have enough!")

print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
                    else:
                        print("")
                        print("You cannot rent ", qnty, " costumes!!")

print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

        except:

            print("")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
            print("Invalid Input.Please enter correctly")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

def write_fnc_rent(main_data, syno, qnty):
    try:
        main_data[syno][3] = str(int(main_data[syno][3]) - qnty)
        file = open("Costume.txt","w")
        for value in main_data.values():
            write_data = value[0]+","+value[1]+","+value[2]+","+value[3]+"\n"
            file.write(write_data)
        file.close()

    except:
        return

def extra_rent(main_data, costume_txt_file, box, date, time, date_time):
    bTotal = 0

    print("")
    print("Select which costume you want to rent.\n")
    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

    print_costume()
    syno = get_valid_syno(main_data)

    if syno == "esc":

        return

    elif syno != "esc":

        qnty = get_valid_quantity(main_data, syno,box)
        write_fnc_rent(main_data, syno, qnty)

        loop = True
        while loop == True:
            if qnty == "no":
                return rent()
            print("")
            extra_rent = (input("Do you want to rent more costumes?(yes/no): ")).lower()
            if extra_rent == "no":

                loop = False
                print("")
                Name = input("Enter your name? : ")
                print("")
                Contact = input("Enter your Contact Number? : ")

                file_path = os.path.abspath("Bill/"+ Name + date_time +"Rent"+".txt")

                newtxtfile = open(file_path, "w")
```

```
newtxtfile.write("\n____________________________________________________________
___________________________")
            newtxtfile.write("\nName: "+ Name)
            newtxtfile.write("\nContact: "+ Contact)
            newtxtfile.write("\nDate: "+ date)
            newtxtfile.write("\nTime: "+ time)

newtxtfile.write("\n____________________________________________________________
___________________________\n")



newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=\n")
            newtxtfile.write("                    BILL OF COSTUMES RENTED!")

newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=")


newtxtfile.write("\n____________________________________________________________
___________________________\n")
            newtxtfile.write("S.N"+"\t"+"Costume
Name"+"\t"+"Brand"+"\t\t"+"Price"+"\t\t"+"Quantity")

newtxtfile.write("\n____________________________________________________________
___________________________\n")

            for index in range(len(box)):

               bID = int(box[index][0])
               bName = main_data[bID][0]
               bQuantity = int(box[index][1])
               bBrand = main_data[bID][1]
               bPrice = float(main_data[bID][2])* bQuantity
               bTotal = bTotal + bPrice


newtxtfile.write("\n"+str(index+1)+"\t"+bName+"\t\t"+bBrand+"\t"+str(bPrice)+"\t\t"+str(b
Quantity))

newtxtfile.write("\n____________________________________________________________
___________________________")

            newtxtfile.write("\n"+                                 "  Total sum:  " + str(bTotal))
newtxtfile.write("\n__________________________________________________________
___________________________")
            newtxtfile.close()

            newtxtfile = open(file_path, "r")
            file_bill = newtxtfile.read()
            print(file_bill)
            newtxtfile.close()


          elif extra_rent == "yes":
            print("\n=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=\n")
            print("          Select the costume you want to rent.")
            print("\n=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=\n")

            print_costume()

            syno = get_valid_syno(main_data)

            if syno == "esc":
               if box != []:
                 loop = False
                 print("")
                 Name = input("Enter your name? : ")
                 print("")
                 Contact = input("Enter your Contact Number? : ")

                 file_path = os.path.abspath("Bill/"+ Name + date_time +"Rent"+".txt")

                 newtxtfile = open(file_path, "w")

newtxtfile.write("\n__________________________________________________________
___________________________")
                 newtxtfile.write("\nName: "+ Name)
                 newtxtfile.write("\nContact: "+ Contact)
                 newtxtfile.write("\nDate: "+ date)
                 newtxtfile.write("\nTime: "+ time)

newtxtfile.write("\n__________________________________________________________
___________________________\n")



newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=\n")
```

```
                newtxtfile.write("                         BILL OF COSTUMES RENTED!")

newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=")


newtxtfile.write("\n___________________________________________________
_______________________\n")
                newtxtfile.write("S.N"+"\t"+"Costume
Name"+"\t"+"Brand"+"\t\t"+"Price"+"\t\t"+"Quantity")

newtxtfile.write("\n___________________________________________________
_______________________\n")

                for index in range(len(box)):

                    bID = int(box[index][0])
                    bName = main_data[bID][0]
                    bQuantity = int(box[index][1])
                    bBrand = main_data[bID][1]
                    bPrice = float(main_data[bID][2])* bQuantity
                    bTotal = bTotal + bPrice


newtxtfile.write("\n"+str(index+1)+"\t"+bName+"\t\t"+bBrand+"\t"+str(bPrice)+"\t\t"+str(b
Quantity))

newtxtfile.write("\n___________________________________________________
_______________________")

                newtxtfile.write("\n"+                                    "  Total sum:  " +
str(bTotal))

newtxtfile.write("\n___________________________________________________
_______________________")
                newtxtfile.close()

                newtxtfile = open(file_path, "r")
                file_bill = newtxtfile.read()
                print(file_bill)
                newtxtfile.close()

            else:
                return

        elif syno != "esc":
```

```
                    qnty = get_valid_quantity(main_data, syno, box)

                    write_fnc_rent(main_data, syno, qnty)


            else:
                print("")
                print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
                print("Invalid Input. Please Enter yes or no.")
                print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

def rent_costumes():
    box = []
    date,time = get_datetime()
    date_time = get_dt()
    costume_txt_file = get_costume_txt_file()
    main_data = get_dictionary(costume_txt_file)
    extra_rent(main_data, costume_txt_file, box, date, time, date_time)


#carries out the rent function in the program
```

Return Extra File

```
from Date_nd_Time import *

import os



def print_return_costume():
    costume_txt_file = get_costume_txt_file()
    main_data = get_dictionary(costume_txt_file)

    print("\n")
    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=")
    print("S.No","\t","Costume Name")
    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=")

    for key,value in main_data.items():

        print(key,"\t",value[0])

def get_return_syno(main_data):
    val_data = False
    while val_data == False:

        try:
            print("")
            return_syno = input("Enter the costume you want to return? \n Enter 'esc' to exit
to menu): ")

            if return_syno == "esc":
                return "esc"

            elif return_syno != "esc":

                return_syno = int(return_syno)

                if return_syno > 0 and return_syno <= len(main_data):
                    val_data = True

                    return return_syno
                else:
                    print("")
                    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
                    print("Please provide a valid costume ID!")
                    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

        except:
            print("")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
            print(" Please do not enter the input in Strings. ")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

def get_return_qnty(main_data, return_syno):
    loop = False
    while loop == False:

        try:
            print("")
            return_qnty = input("Enter the quantity you would like to return: /n Enter 'no' to
cancel: ")

            for key,value in main_data.items():
                if key == return_syno:

                    if return_qnty == "no":
                        return "no"
                    else:
                        return_qnty = int(return_qnty)

                        print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
                        print(return_qnty,value[0],"returned successfully.")
                        print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

                        return return_qnty

        except:
            print("")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
            print(" Please do not enter the input in Strings. ")
            print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")



def write_fnc_return(main_data, return_syno, return_qnty):
    try:
        main_data[return_syno][3] = str(int(main_data[return_syno][3]) + return_qnty)
        file = open("Costume.txt","w")

        for value in main_data.values():
            write_data = value[0]+","+value[1]+","+value[2]+","+value[3]+"\n"
            file.write(write_data)
        file.close()

    except:
        return

def extra_return(main_data,costume_txt_file,box,date,time,date_time):
    bTotal = 0

    print("")
    print("Select which costume you want to return.\n")
    print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")

    print_return_costume()

    return_syno = get_return_syno(main_data)

    if return_syno == "esc":

        return

    elif return_syno != "esc":

        return_qnty = get_return_qnty(main_data, return_syno)

        box.append([return_syno, return_qnty])

        write_fnc_return(main_data, return_syno, return_qnty)
        loop = True
        while loop == True:


            if return_qnty == "none":

                return ret()

            extra_return = (input("Do you want to return more costumes?(yes/no): ")).lower()

            if extra_return == "no":

                print("")
                Name = input("Enter your name? : ")
                print("")
                Contact = input("Enter your Contact Number? : ")
                print("")
                beforeTime = (input("Is the costume returned before its due?(yes/no):
")).lower()

                if beforeTime == "yes":
                    file_path = os.path.abspath("Bill/"+ Name + date_time +"Return"+".txt")

                    newtxtfile = open(file_path, "w")

newtxtfile.write("\n_____________________________________________________
________________________")
                    newtxtfile.write("\nName: "+ Name)
                    newtxtfile.write("\nContact: "+ Contact)
                    newtxtfile.write("\nDate: "+ date)
                    newtxtfile.write("\nTime: "+ time)

newtxtfile.write("\n_____________________________________________________
________________________\n")



newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=\n")
                    newtxtfile.write("                           BILL OF COSTUMES RETURNED!")

newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=")


newtxtfile.write("\n_____________________________________________________
________________________\n")
                    newtxtfile.write("S.N"+"\t"+"Costume
Name"+"\t"+"Brand"+"\t\t"+"Price"+"\t\t"+"Quantity")

newtxtfile.write("\n_____________________________________________________
________________________\n")

                    for index in range(len(box)):

                        bID = int(box[index][0])
                        bName = main_data[bID][0]
                        bQuantity = int(box[index][1])
                        bBrand = main_data[bID][1]
                        bPrice = float(main_data[bID][2])* bQuantity
                        bTotal = bTotal + bPrice
```

```
newtxtfile.write("\n"+str(index+1)+"\t"+bName+"\t\t"+bBrand+"\t"+str(bPrice)+"\t\t"+str(b
Quantity))

newtxtfile.write("\n_____________________________________________________
____________________")

          newtxtfile.write("\n"+"\t\t" + "  Total sum:  " + str(bTotal))

newtxtfile.write("\n_____________________________________________________
____________________")
          newtxtfile.close()

          newtxtfile = open(file_path, "r")
          file_bill = newtxtfile.read()
          print(file_bill)
          newtxtfile.close()

          loop = False


        elif beforeTime == "no":
          Days = int(input("Number of days late?(Fine Per Day = +50):"))

          file_path = os.path.abspath("Bill/" + Name + date_time + "RETURN"+".txt")

          newtxtfile = open(file_path, "w")

newtxtfile.write("\n_____________________________________________________
________________________")
          newtxtfile.write("\nName: "+ Name)
          newtxtfile.write("\nContact: "+ Contact)
          newtxtfile.write("\nDate: "+ date)
          newtxtfile.write("\nTime: "+ time)

newtxtfile.write("\n_____________________________________________________
________________________\n")



newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=\n")
          newtxtfile.write("                    BILL OF COSTUMES RETURNED!")

newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=")
```

```
newtxtfile.write("\n_______________________________________________________________
_____________________________\n")
                    newtxtfile.write("S.N"+"\t"+"Costume 
Name"+"\t"+"Brand"+"\t\t"+"Price"+"\t\t"+"Quantity")

newtxtfile.write("\n_______________________________________________________________
_____________________________\n")

                    for index in range(len(box)):

                        bID = int(box[index][0])
                        bName = main_data[bID][0]
                        bQuantity = int(box[index][1])
                        bBrand = main_data[bID][1]
                        bPrice = float(main_data[bID][2])* bQuantity
                        bTotal = bTotal + bPrice
                        bFine = float(50*Days)
                        bFinalTotal = bTotal + bFine


newtxtfile.write("\n"+str(index+1)+"\t"+bName+"\t\t"+bBrand+"\t"+str(bPrice)+"\t\t"+str(b
Quantity))

newtxtfile.write("\n_______________________________________________________________
________________________")

                    newtxtfile.write("\n"+"\t" +  "Final Proce without fine : " + str(bTotal))
                    newtxtfile.write("\n"+"\t" +  "Total Fine               : " + str(bFine))
                    newtxtfile.write("\n"+"\t" +  "Grand Total:              : " + str(bFinalTotal))

newtxtfile.write("\n_______________________________________________________________
________________________")
                    newtxtfile.close

                    newtxtfile = open(file_path, "r")
                    file_bill = newtxtfile.read()
                    print(file_bill)
                    newtxtfile.close()

                    loop = False

            elif extra_return == "yes":
                print("\n=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=\n")
                print("          Select the costume you want to return.")
```

```
        print("\n=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|==|=|=|=|=|=|=\n")

        print_return_costume()
        return_syno = get_return_syno(main_data)

        if return_syno == "esc":

            if box != []:
                loop = False

                print("")
                Name = input("Enter your name? : ")
                print("")
                Contact = input("Enter your Contact Number? : ")
                print("")
                beforeTime = (input("Is the costume returned before its due?(yes/no):
")).lower()

                if beforeTime == "yes":
                    file_path = os.path.abspath("Bill/" + Name + date_time +
"RETURN"+".txt")

                    newtxtfile = open(file_path, "w")

newtxtfile.write("\n_____________________________________________________
________________________")
                    newtxtfile.write("\nName: "+ Name)
                    newtxtfile.write("\nContact: "+ Contact)
                    newtxtfile.write("\nDate: "+ date)
                    newtxtfile.write("\nTime: "+ time)

newtxtfile.write("\n_____________________________________________________
________________________\n")



newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=\n")
                    newtxtfile.write("                    BILL OF COSTUMES
RETURNED!")

newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=")
```

```
newtxtfile.write("\n____________________________________________________________
___________________________\n")
                newtxtfile.write("S.N"+"\t"+"Costume
Name"+"\t"+"Brand"+"\t\t"+"Price"+"\t\t"+"Quantity")

newtxtfile.write("\n____________________________________________________________
___________________________\n")

                for index in range(len(box)):

                    bID = int(box[index][0])
                    bName = main_data[bID][0]
                    bQuantity = int(box[index][1])
                    bBrand = main_data[bID][1]
                    bPrice = float(main_data[bID][2])* bQuantity
                    bTotal = bTotal + bPrice


newtxtfile.write("\n"+str(index+1)+"\t"+bName+"\t\t"+bBrand+"\t"+str(bPrice)+"\t\t"+str(b
Quantity))

newtxtfile.write("\n____________________________________________________________
_______________________")

                newtxtfile.write("\n"+"\t\t" + "  Total sum:  " + str(bTotal))

newtxtfile.write("\n____________________________________________________________
_______________________")
                newtxtfile.close()

                newtxtfile = open(file_path, "r")
                file_bill = newtxtfile.read()
                print(file_bill)
                newtxtfile.close()

            elif beforeTime == "no":
                Days = int(input("Number of days late?(Fine Per Day = +50):"))

                file_path = os.path.abspath("Bill/" + Name + date_time +
"RETURN"+".txt")

                newtxtfile = open(file_path, "w")

newtxtfile.write("\n____________________________________________________________
___________________________")
```

```
                    newtxtfile.write("\nName: "+ Name)
                    newtxtfile.write("\nContact: "+ Contact)
                    newtxtfile.write("\nDate: "+ date)
                    newtxtfile.write("\nTime: "+ time)

newtxtfile.write("\n_____________________________________________________
________________________\n")



newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=\n")
                    newtxtfile.write("                    BILL OF COSTUMES
RETURNED!")

newtxtfile.write("\n|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|
=|=|=|=")


newtxtfile.write("\n_____________________________________________________
________________________\n")
                    newtxtfile.write("S.N"+"\t"+"Costume
Name"+"\t"+"Brand"+"\t\t"+"Price"+"\t\t"+"Quantity")

newtxtfile.write("\n_____________________________________________________
________________________\n")

                    for index in range(len(box)):

                       bID = int(box[index][0])
                       bName = main_data[bID][0]
                       bQuantity = int(box[index][1])
                       bBrand = main_data[bID][1]
                       bPrice = float(main_data[bID][2])* bQuantity
                       bTotal = bTotal + bPrice
                       bFine = float(50*Days)
                       bFinalTotal = bTotal + bFine


newtxtfile.write("\n"+str(index+1)+"\t"+bName+"\t\t"+bBrand+"\t"+str(bPrice)+"\t\t"+str(b
Quantity))

newtxtfile.write("\n_____________________________________________________
____________________")

                    newtxtfile.write("\n"+"\t" +  "Final Proce without fine : " + str(bTotal))
```

```
                            newtxtfile.write("\n"+"\t" +  "Total Fine              : " + str(bFine))
                            newtxtfile.write("\n"+"\t" +  "Grand Total:             : " + str(bFinalTotal))

newtxtfile.write("\n_______________________________________________________
_____________________")
                            newtxtfile.close

                            newtxtfile = open(file_path, "r")
                            file_bill = newtxtfile.read()
                            print(file_bill)
                            newtxtfile.close()
                    else:

                        return

                elif return_syno != "esc":
                    return_qnty = get_return_qnty(main_data, return_syno)

                    box.append([return_syno, return_qnty])

                    write_fnc_return(main_data, return_syno, return_qnty)

            else:
                print("")
                print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
                print("Invalid Data.Please enter correct input!!!")
                print("=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=|=")
def ret():
    box = []
    date,time = get_datetime()
    date_time = get_dt()
    costume_txt_file = get_costume_txt_file()
    main_data = get_dictionary(costume_txt_file)

    extra_return(main_data, costume_txt_file, box, date, time, date_time)
#carries out the retunr function of the program
```

Date nd Time File

```
import datetime

def get_datetime():
    import datetime
    year = str(datetime.datetime.now().year)
    month = str(datetime.datetime.now().month)
    day = str(datetime.datetime.now().day)
    hour = str(datetime.datetime.now().hour)
    minute = str(datetime.datetime.now().minute)
    second = str(datetime.datetime.now().second)

    date = str(year + month + day)
    time = str(hour + minute + second)
    return date,time

def get_dt():
    import datetime
    year = str(datetime.datetime.now().year)
    month = str(datetime.datetime.now().month)
    day = str(datetime.datetime.now().day)
    hour = str(datetime.datetime.now().hour)
    minute = str(datetime.datetime.now().minute)
    second = str(datetime.datetime.now().second)

    date_time = str(year + month + day + hour + minute + second)

    return date_time


def get_costume_txt_file():
    file = open("Costume.txt", "r")
    data = file.readlines()
    file.close()
    return data
#the above function is used to read the text file in the program.

def get_dictionary(costume_txt_file):
    data = {}
    for index in range(len(costume_txt_file)):
        data[index+1] = costume_txt_file[index].replace("\n","").split(",")
    return data
#the above function is used to save the above text file in a dictionary within the
program.
```

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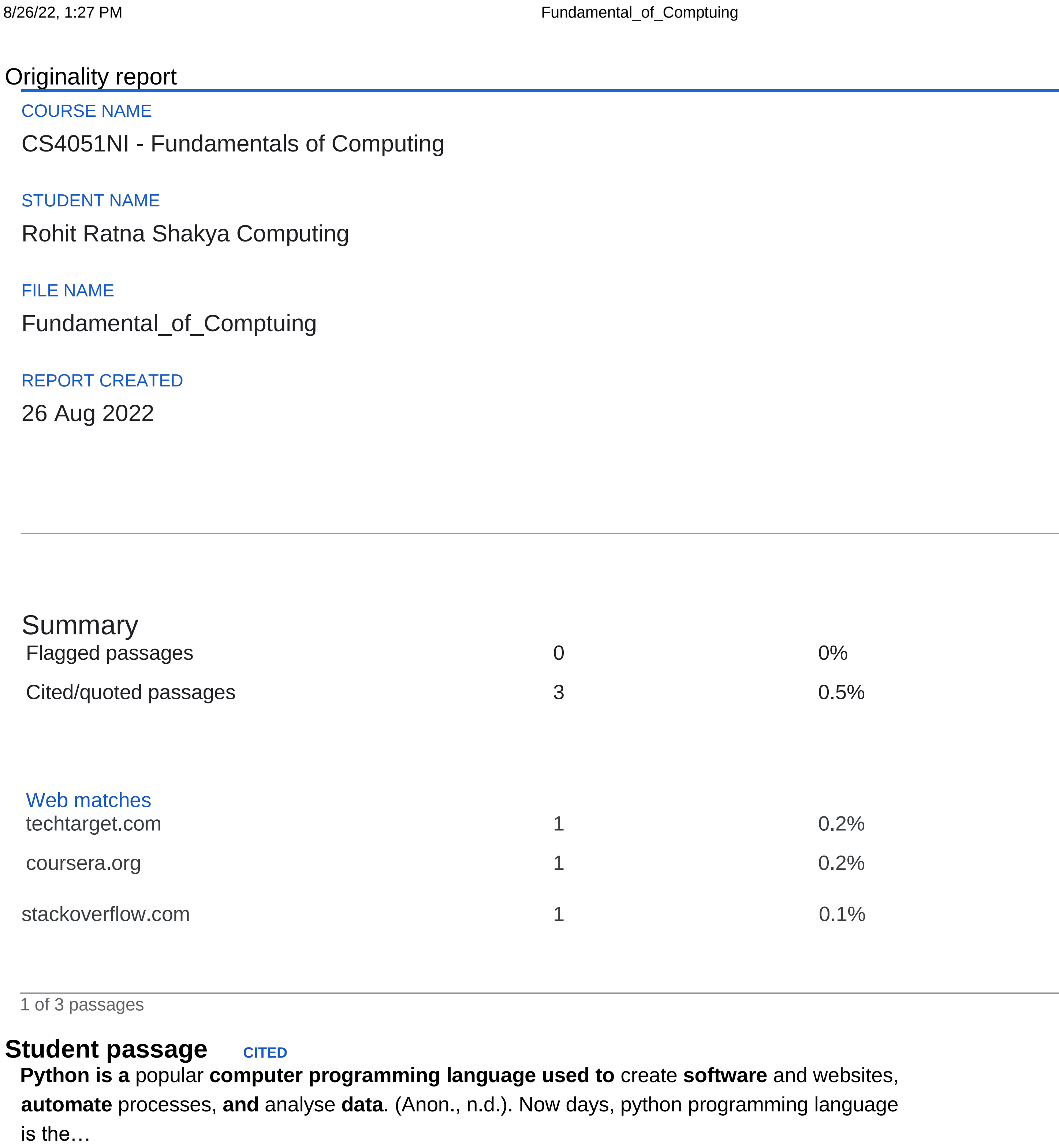

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STUDENT NAME

Rohit Ratna Shakya Computing

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…solve a problem with specific actions step by step. **Algorithms can be expressed as natural languages, programming languages, pseudocode, flowcharts and control tables**. (Anon., n.d.)

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What is an Algorithm? - Definition from WhatIs.com - TechTarget https://www.techtarget.com/whatis/definition/algorithm

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3 of 3 passages

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print ("**Would you like to exit the program**? (3)")

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import sys def exit_func(): quitProgram = str(raw_input("**Would you like to exit the program** (y,n)")) while quitProgram !=

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