Monopoly Industries

BANKING APP

BY SAMANTHA BRAYNE

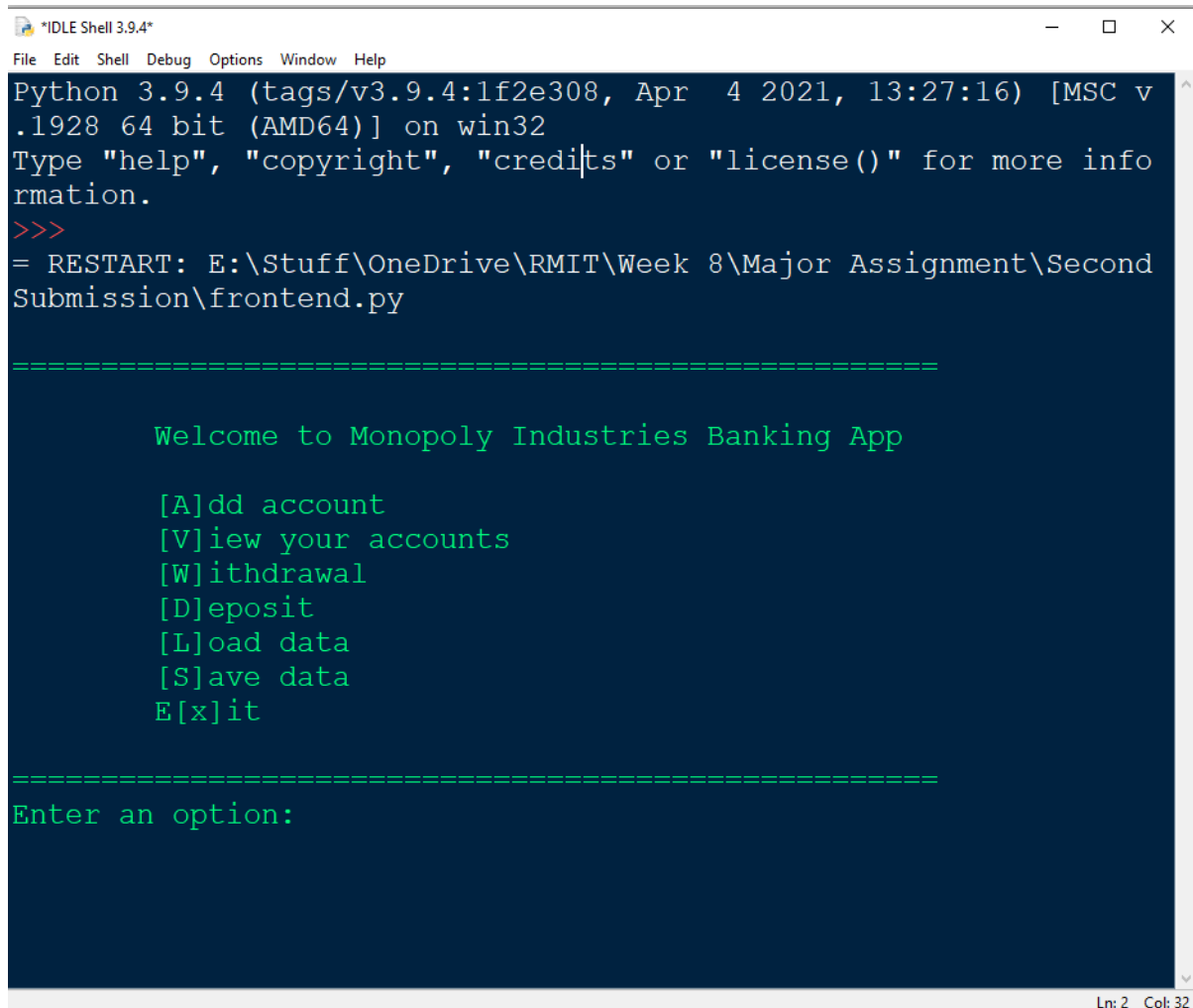# Table of Contents

Introduction

What is the purpose of this app?

The inspiration of this application was taken from the CommBank app, I personally use my app every day, since the start of the pandemic I have made an effort to save money rather than living paycheck to paycheck. During the past year, I have made small saving goals by creating different accounts and separating the money to visually see where my spending goes, and how I can improve in certain areas.

This app has basic functionality, such as creating new bank accounts with account number, name of account and the balance. Withdrawals and deposits from specified accounts is possible which changes the balance available. The user may also save and load files by entering the file name.

Walk through of the App

Here we have included samples and screenshots of the program with some brief instructions on what you can or cannot do within the program. All the operations listed in the menu below, are listed in the following sections.

Add account

Account creation is very simple from the main menu, enter A, a capital or lower case will be accepted.

The program will prompt you to enter your account number. If for some reason you make a typo such as entering a letter or symbol. In the example below, I have made a few errors and the program has confirmed that the answer I gave was not right.

Finally, I have entered my account number 12345, the program now prompts for an account name.

```
*IDLE Shell 3.9.4*                                          —  □  ×
File  Edit  Shell  Debug  Options  Window  Help

.1920 04 bit (AMD04)] on win32
Type "help", "copyright", "credits" or "license()" for more info
rmation.
>>>
= RESTART: E:\Stuff\OneDrive\RMIT\Week 8\Major Assignment\Second
Submission\frontend.py


========================================================


        Welcome to Monopoly Industries Banking App


        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


========================================================
Enter an option: A

Enter your account number: 15%45
That wasn't right. Re-enter: 254p4
That wasn't right. Re-enter: 12345
Enter the account name: Christmas2021
Enter an opening balance: |

                                                   Ln: 25   Col: 26
```

```
*IDLE Shell 3.9.4*                                              —  □  ×
File  Edit  Shell  Debug  Options  Window  Help
         [L]oad data
         [S]ave data
         E[x]it


    =================================================
Enter an option: A

Enter your account number: 15%45
That wasn't right. Re-enter: 254p4
That wasn't right. Re-enter: 12345
Enter the account name: Christmas2021
Enter an opening balance: 500


    =================================================


         Welcome to Monopoly Industries Banking App

         [A]dd account
         [V]iew your accounts
         [W]ithdrawal
         [D]eposit
         [L]oad data
         [S]ave data
         E[x]it


    =================================================
Enter an option: |
                                                    Ln: 40   Col: 17
```

Symbols and numbers are accepted as an account name. The opening balance above is $500.

If for some reason a typo was entered on the opening balance amount, the program will request a number, or decimal without any symbols or letters.

```
*IDLE Shell 3.9.4*                                                    —  □  ×
File  Edit  Shell  Debug  Options  Window  Help
        [S]ave data
        E[x]it


========================================================
Enter an option:
Error! Input cannot be blank. Re-enter:   a

Enter your account number: 23456
Enter the account name: Christmas2022
Enter an opening balance: r500
That wasn't right. Re-enter: !300
That wasn't right. Re-enter: 500


========================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


========================================================
Enter an option: |
                                                    Ln: 62  Col: 17
```

Successful creation of account!

View your accounts

You can view all existing accounts created and/or loaded into the program, by pressing v or V to get the accounts to display on the screen.

As you can see in the previous screenshot, I have 4 accounts listed, which were created and saved to a file. The main menu automatically prompts for another option.

If the customer chooses view accounts without loading an existing account or creating an account, the program will advise no accounts found as shown below.

```
Python 3.9.4 (tags/v3.9.4:1f2e308, Apr  4 2021, 13:27:16) [MSC v.1928 64 bit (A
MD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
====== RESTART: E:\Stuff\OneDrive\RMIT\Week 8\second attempt\frontend.py ======


=======================================================


        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


=======================================================
Enter an option: v



        View all accounts



No accounts found.
=======================================================


        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


=======================================================
Enter an option:
```
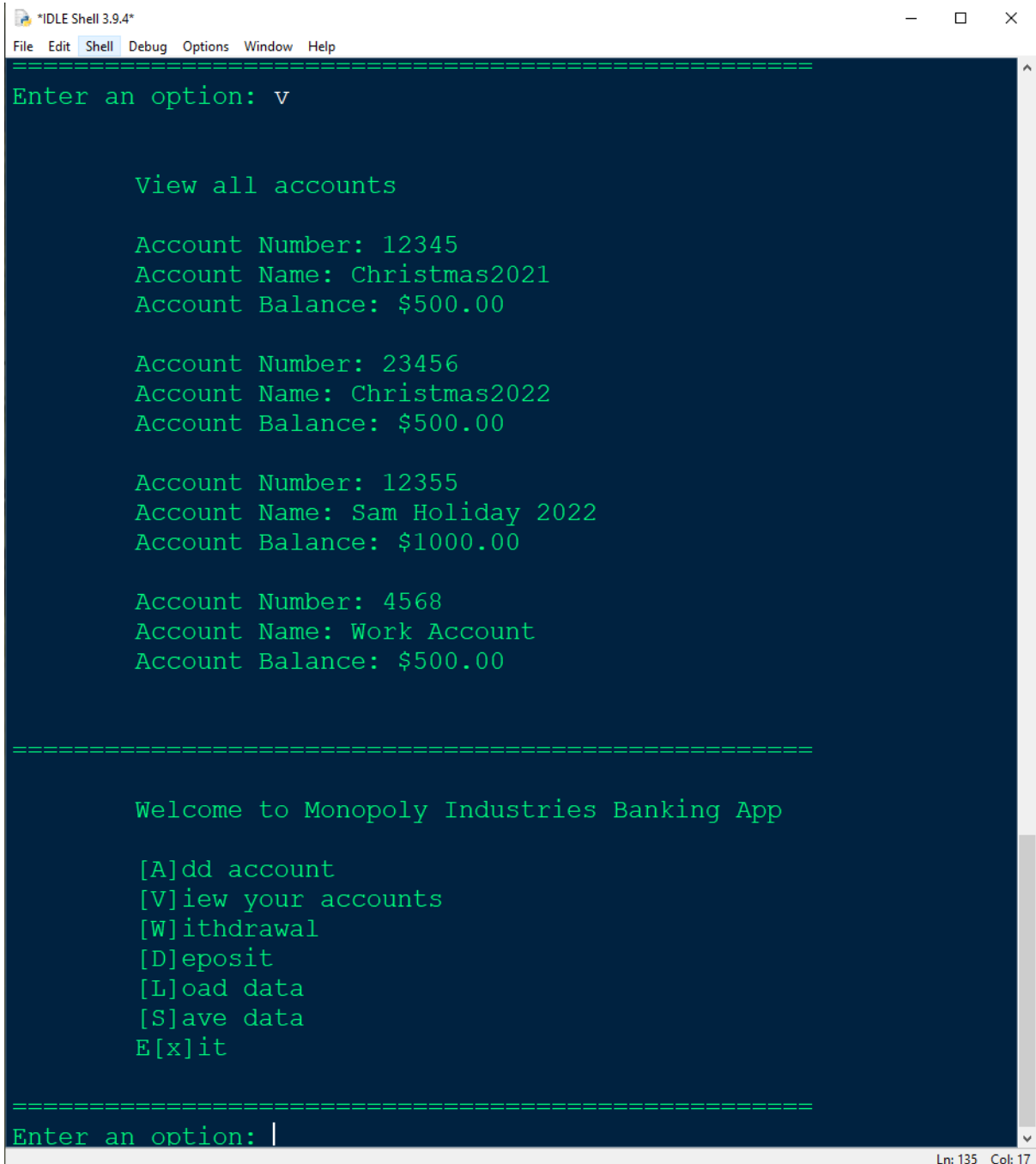
Withdrawals

For withdrawals, enter W or w at the main menu to start the operation.

The program will prompt you to enter you account number that you wish to withdraw money from.

If for some reason you have forgotten the account number or you do not have enough money in the account to make that withdrawal, the program will advise the customer of an error as shown below.

As the program cannot find a match it will loop back to the bank menu as shown above.

In this example we will withdraw $1 from account 12345 that has a balance of $500.

```
*IDLE Shell 3.9.4*                                                    —  □  ×
File  Edit  Shell  Debug  Options  Window  Help

        Account Name: work Account
        Account Balance: $500.00


    ======================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


    ======================================================
Enter an option: W

Enter your account number: 12345
Enter withdraw amount: 1

You have withdrawn $1.00 from account 12345
    ======================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


    ======================================================
Enter an option: |
                                                        Ln: 154  Col: 17
```
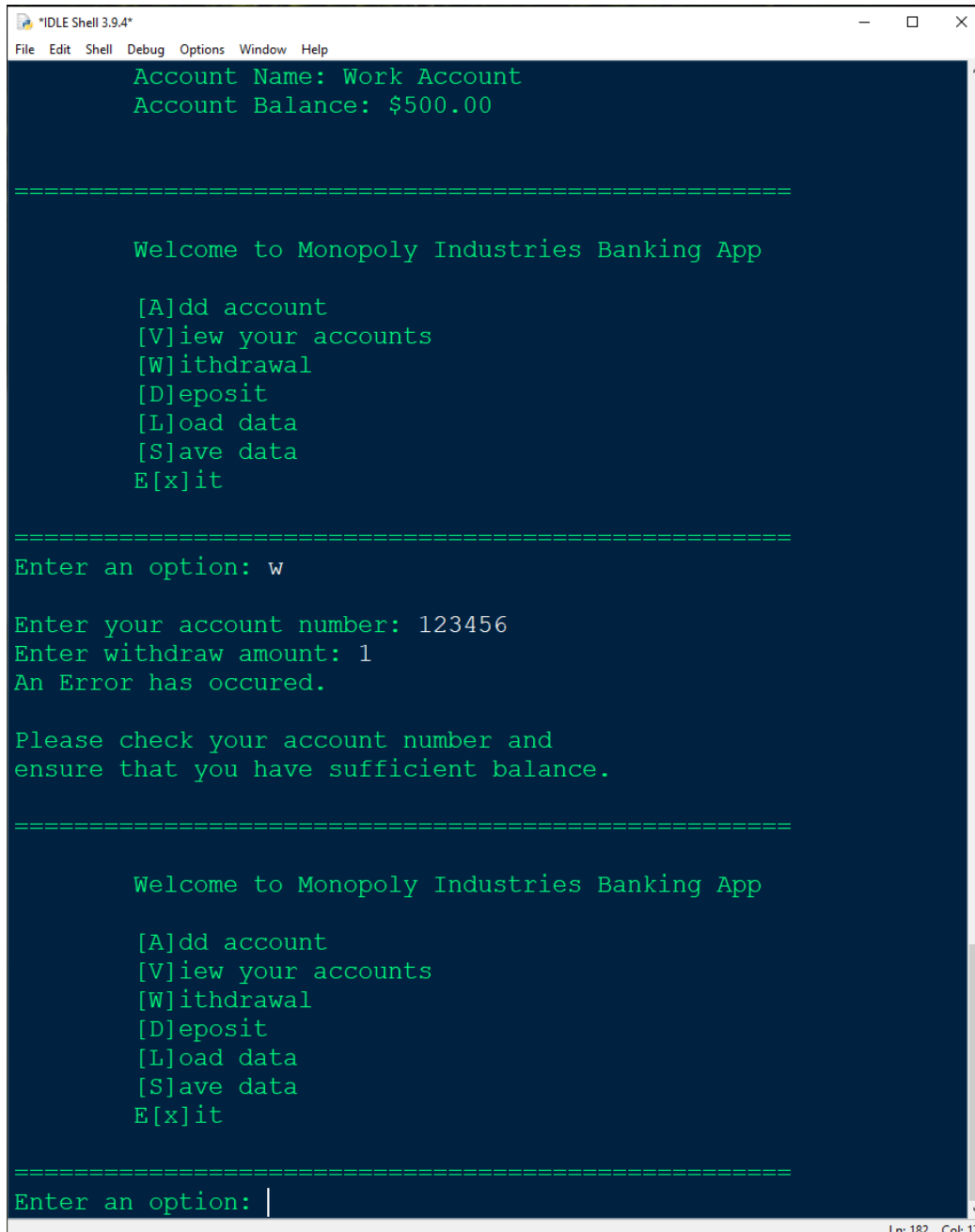
The program confirms the withdraw was successful.

If we return to view accounts, we can see the account balance of account 12345 is now $499.00

```
Enter an option: V


        View all accounts

        Account Number: 12345
        Account Name: Christmas2021
        Account Balance: $499.00

        Account Number: 23456
        Account Name: Christmas2022
        Account Balance: $500.00

        Account Number: 12355
        Account Name: Sam Holiday 2022
        Account Balance: $1000.00

        Account Number: 4568
        Account Name: Work Account
        Account Balance: $500.00


========================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


========================================================
Enter an option: |
```
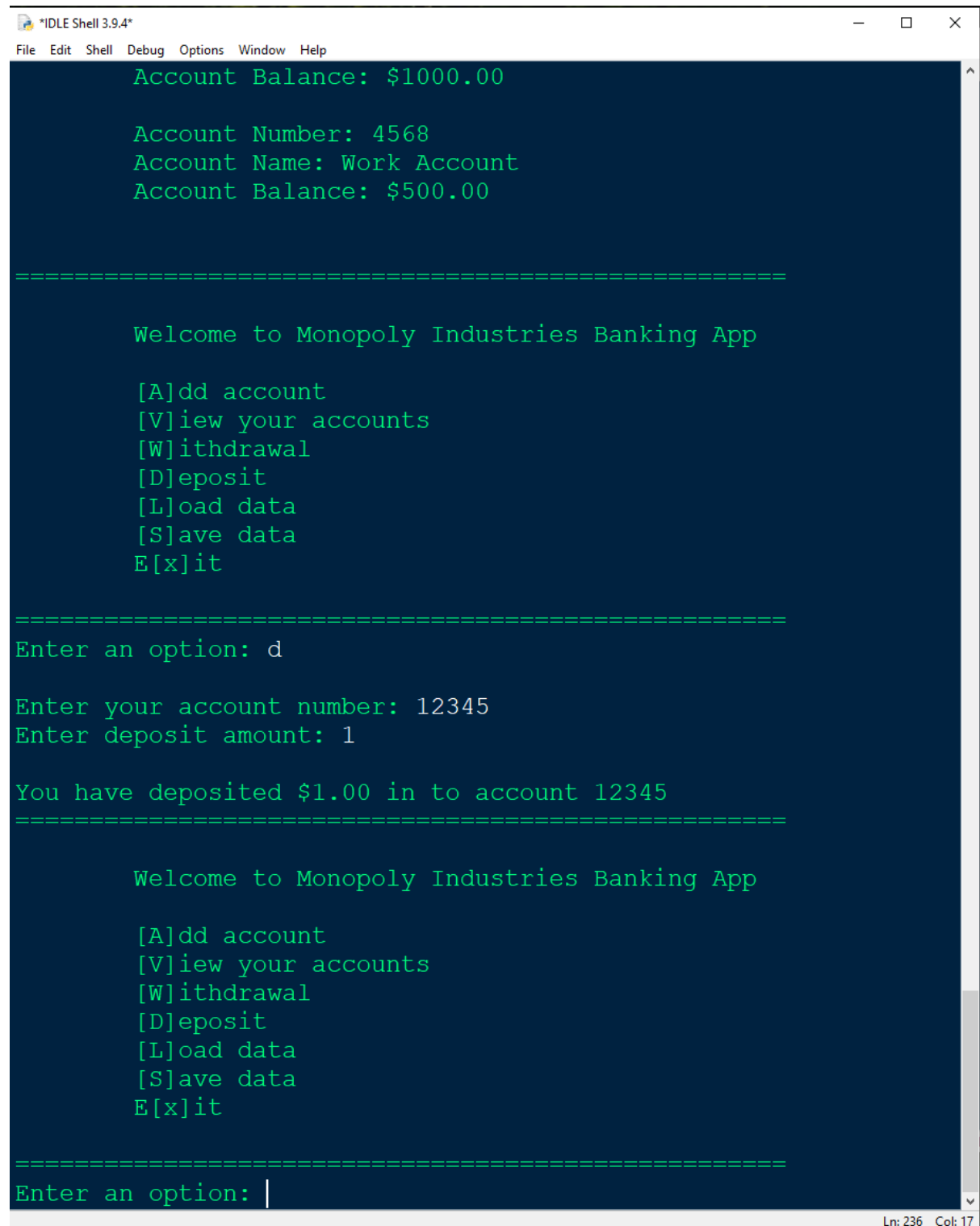
Deposits

To deposit money into an account, enter d or D at the main menu.

The program will ask you for the account number and deposit amount.

Following from the previous example, where we withdrew $1.00 from account number 12345 We will deposit the $1.00 back into the account.

The program has confirmed the deposit is successful and now we view the accounts and can see that the balance on account 12345 has been updated to $500 again.

```
IDLE Shell 3.9.4                                              —    □    ×
File  Edit  Shell  Debug  Options  Window  Help
        [S]ave data
        E[x]it


========================================================
Enter an option: v


        View all accounts

        Account Number: 12345
        Account Name: Christmas2021
        Account Balance: $500.00

        Account Number: 23456
        Account Name: Christmas2022
        Account Balance: $500.00

        Account Number: 12355
        Account Name: Sam Holiday 2022
        Account Balance: $1000.00

        Account Number: 4568
        Account Name: Work Account
        Account Balance: $500.00



========================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


========================================================
Enter an option: |
                                                    Ln: 271  Col: 17
```

Errors when typing the account number, will prompt the customer to re-enter the account number. If the number entered does not match an existing account, the program will ask the customer to check the account number and try again later.

```
            Account Name: Work Account
            Account Balance: $500.00



    ====================================================

            Welcome to Monopoly Industries Banking App

            [A]dd account
            [V]iew your accounts
            [W]ithdrawal
            [D]eposit
            [L]oad data
            [S]ave data
            E[x]it

    ====================================================
    Enter an option: d

    Enter your account number: 12345p
    That wasn't right. Re-enter: 12345!
    That wasn't right. Re-enter: 123456
    Enter deposit amount: 1

    No matches found, please check your account number and try agai
    n later
    ====================================================

            Welcome to Monopoly Industries Banking App

            [A]dd account
            [V]iew your accounts
            [W]ithdrawal
            [D]eposit
            [L]oad data
            [S]ave data
            E[x]it

    ====================================================
    Enter an option: |
```
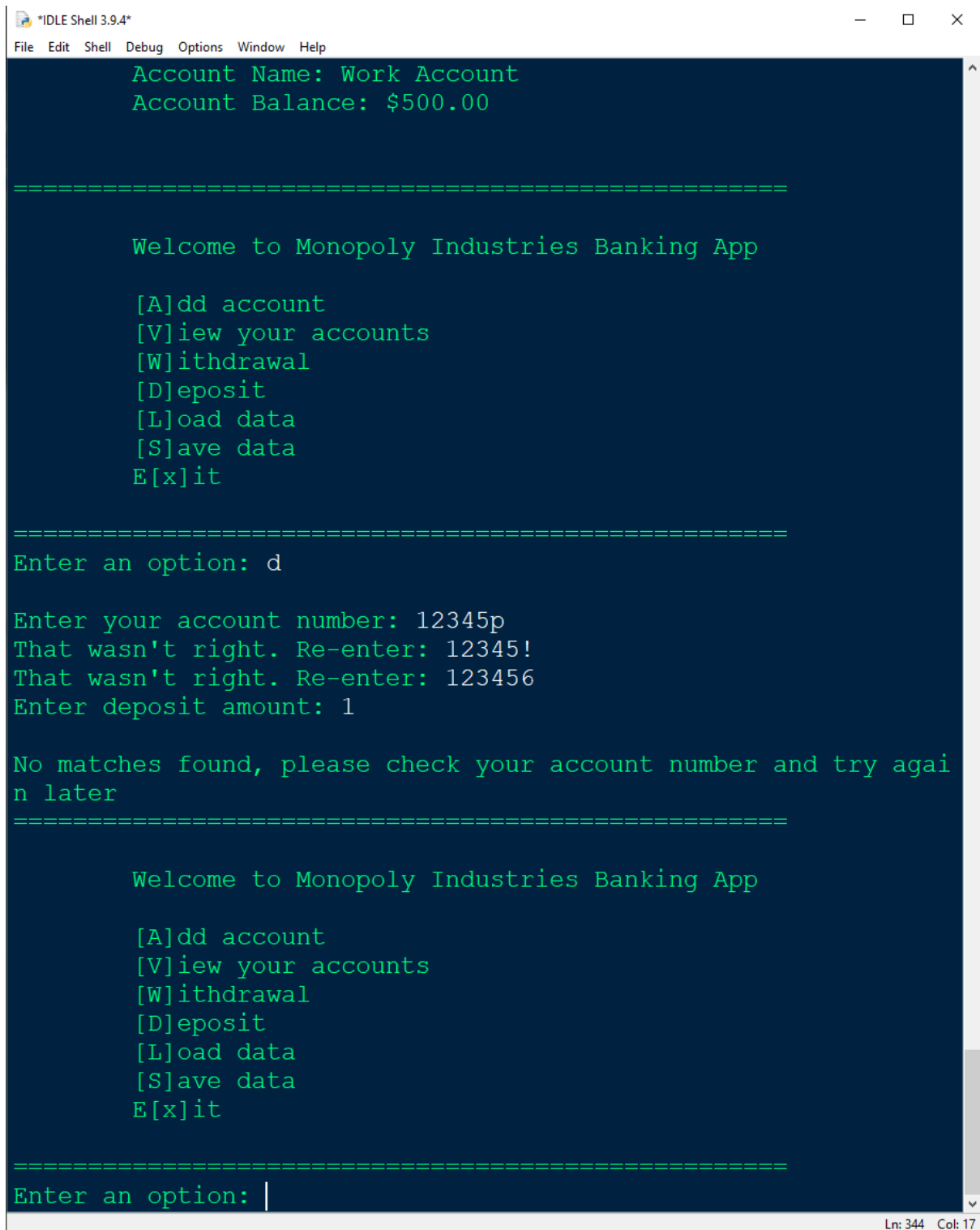
Load data

Loading an existing file is very simple, just enter l or L at the main menu.

In the screenshot below, I have seem to forgotten the file name and written filename. As this file does not exist, the program has confirmed an error.

I have saved a file from my last session into a file name called userguide.csv, I have loaded the file successfully as shown below.

```
                [S]ave data
                E[x]it


===================================================
Enter an option: v


No accounts found.
===================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


===================================================
Enter an option: l

Enter filename: userguide.csv

File loaded successfully.
===================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


===================================================
Enter an option: |
```
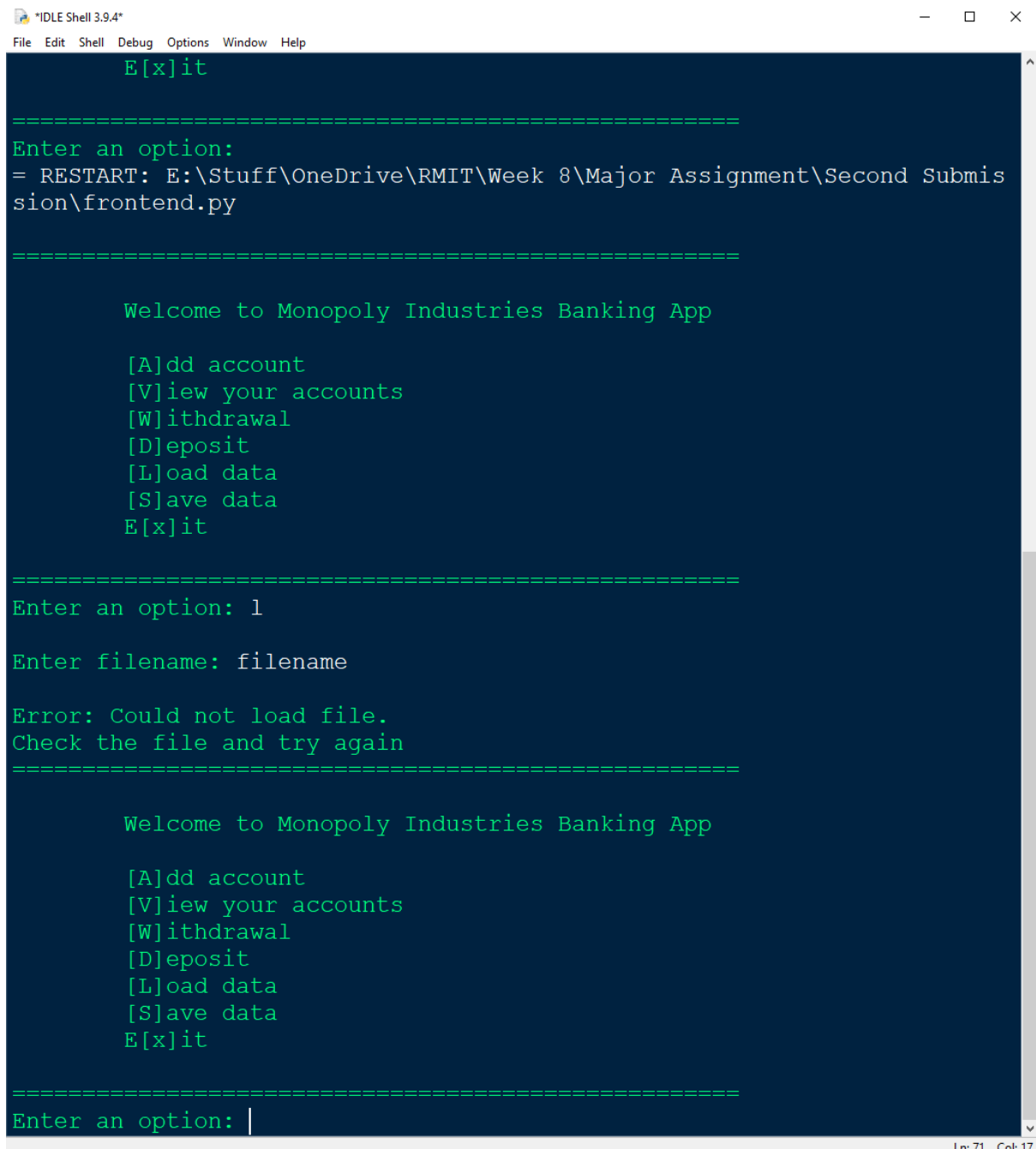
File data can be displayed on view accounts below.

```
                                    ^
        [S]ave data
        E[x]it

====================================================
Enter an option: v


        View all accounts

        Account Number: 12345
        Account Name: Christmas2021
        Account Balance: $500.00

        Account Number: 23456
        Account Name: Christmas2022
        Account Balance: $500.00

        Account Number: 12355
        Account Name: Sam Holiday 2022
        Account Balance: $1000.00

        Account Number: 4568
        Account Name: Work Account
        Account Balance: $500.00


====================================================


        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


====================================================
Enter an option: |
```

Save data

The saving option is a bit tricky, when saving a file, ensure that the file extension can be opened on your computer.

In this example, I have entered s from the menu, to bring up the save file prompt below.

Unfortunately, I have made an error saving the file without a file extension.

```
                                               ─   □   ×
 *IDLE Shell 3.9.4*
File  Edit  Shell  Debug  Options  Window  Help
        E[x]it


================================================
Enter an option: L

Enter filename: userguide.csv

File loaded successfully
================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


================================================
Enter an option: s

Enter filename: userguide

Saved to file.
================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


================================================
Enter an option: |
                                            Ln: 301  Col: 1
```

The result on my computer is as shown below, as I have window OS, I have an option to right click on the file and open with notepad.

| userguide | ⊘ | 24/10/2021 10:07 AM | File |
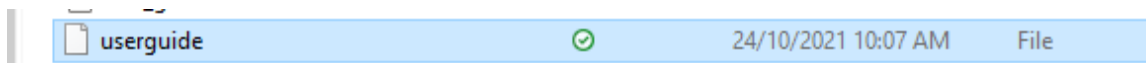
You can manually change the file name by renaming it with userguide.csv or userguide.txt.

Alternatively, if the program is still open we can save with the correct file extension as shown below.

```
            E[x]it


        ================================================
        Enter an option: s

        Enter filename: userguide

        Saved to file.
        ================================================

                Welcome to Monopoly Industries Banking App

                [A]dd account
                [V]iew your accounts
                [W]ithdrawal
                [D]eposit
                [L]oad data
                [S]ave data
                E[x]it


        ================================================
        Enter an option: s

        Enter filename: userguide.csv

        Saved to file.
        ================================================

                Welcome to Monopoly Industries Banking App

                [A]dd account
                [V]iew your accounts
                [W]ithdrawal
                [D]eposit
                [L]oad data
                [S]ave data
                E[x]it


        ================================================
        Enter an option:
```
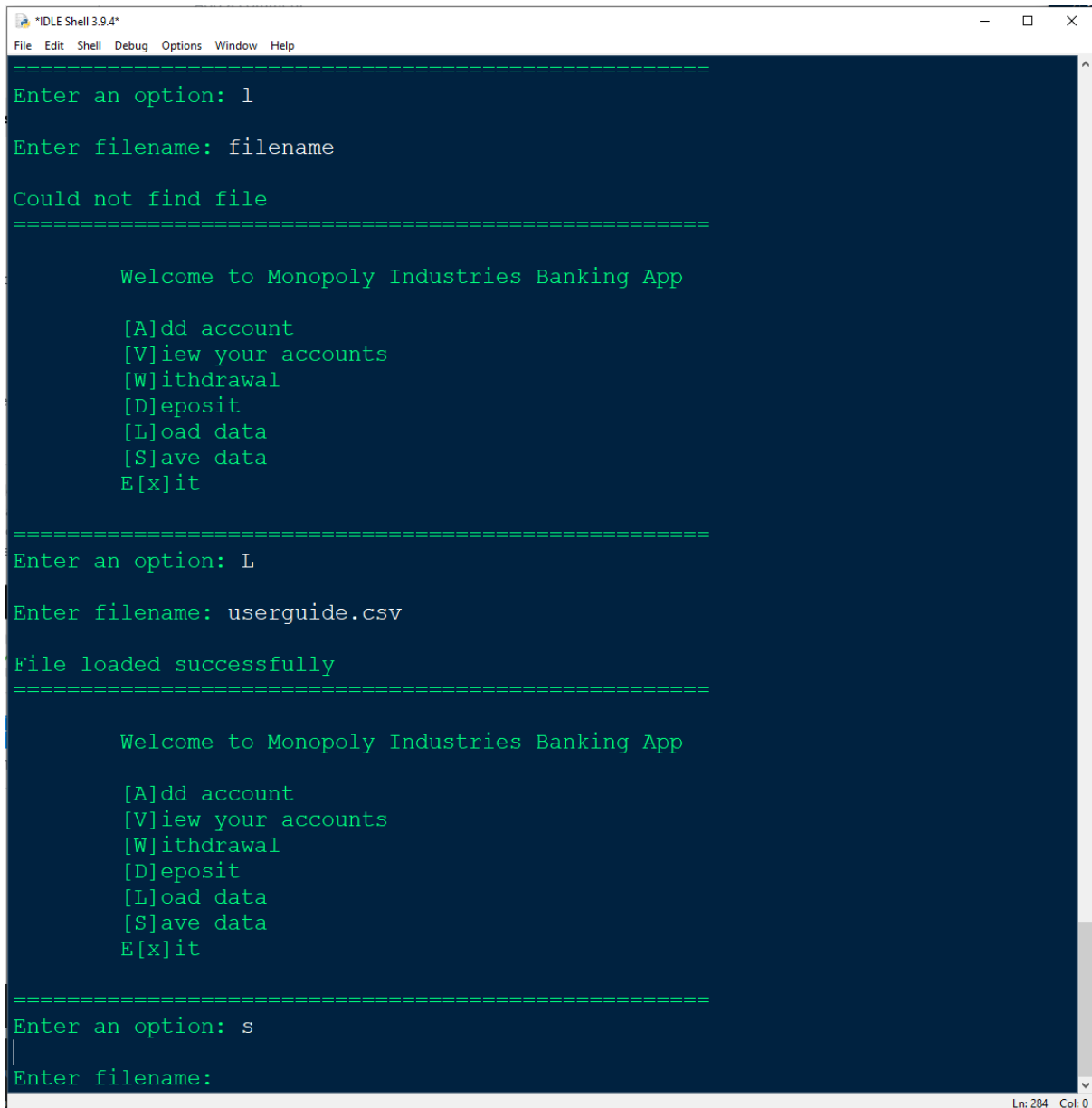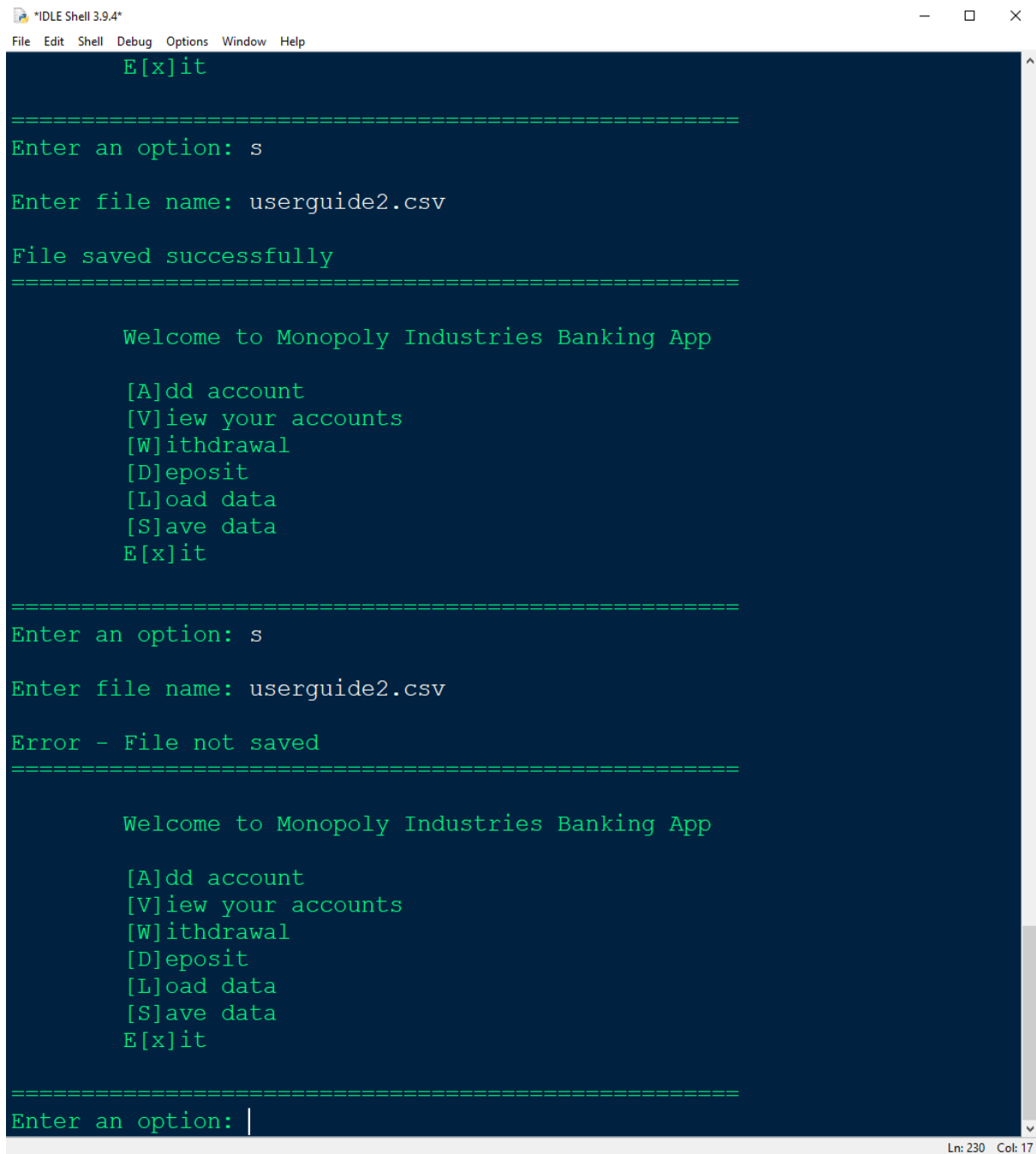
The file on my computer is shown below.

| Xa userguide | ⊘ | 24/10/2021 10:10 AM | Microsoft Ex‹ |

Errors may occur such as when filename already exists and the file is already opened and locked, the program will confirm there is an error as shown below.
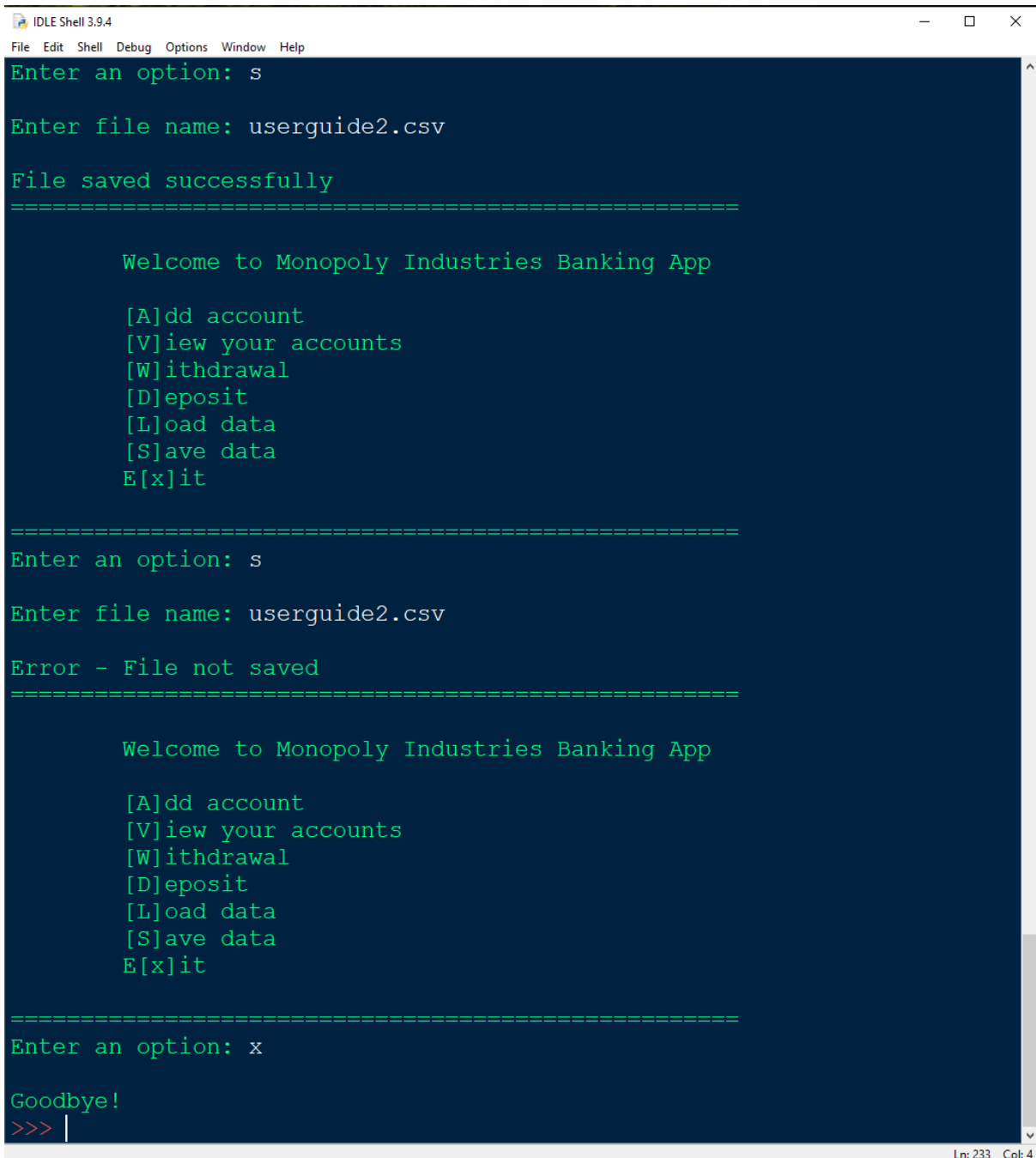
```
*IDLE Shell 3.9.4*                                                    —    □    ×
File  Edit  Shell  Debug  Options  Window  Help

        E[x]it


==================================================
Enter an option: s

Enter file name: userguide2.csv

File saved successfully
==================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


==================================================
Enter an option: s

Enter file name: userguide2.csv

Error - File not saved
==================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


==================================================
Enter an option: |
                                                        Ln: 230   Col: 17
```

Exit

To exist the program simply press X or x at the main menu.

```
IDLE Shell 3.9.4                                                        —    □    ×
File  Edit  Shell  Debug  Options  Window  Help
Enter an option: s

Enter file name: userguide2.csv

File saved successfully
====================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


====================================================
Enter an option: s

Enter file name: userguide2.csv

Error - File not saved
====================================================

        Welcome to Monopoly Industries Banking App

        [A]dd account
        [V]iew your accounts
        [W]ithdrawal
        [D]eposit
        [L]oad data
        [S]ave data
        E[x]it


====================================================
Enter an option: x

Goodbye!
>>>
                                                          Ln: 233   Col: 4
```