User Records Scripts Report

Contents

MS-DOS script program

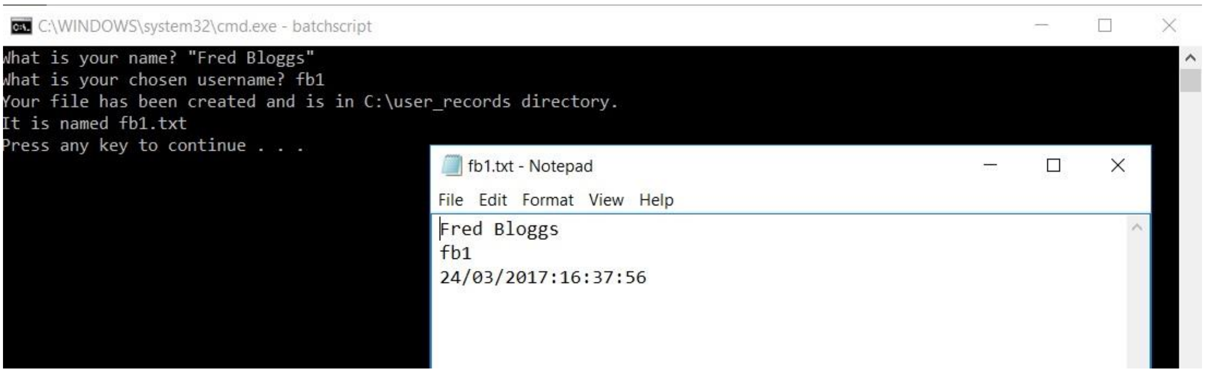
The code layout

```
@echo off

REM creating the user_records directory
mkdir C:\user_records
cls

REM remove any quotation marks
set tempName=%~1

REM check if the first parameter is empty and run interative mode if
REM it is
if "%tempName%"=="" (

goto imode
)

REM check the existence of a second parameter
REM inform the user that we are missing 1 parameter and then run
REM interactive mode
if "%2"=="" (
@echo Error: There is no second parameter.
@echo Starting the interactive mode.

goto imode
)

REM check the existence of more than 2 parameters
REM inform the user that they entered more than 2 parameters and then
REM run interactive mode
if not "%3"=="" (
@echo Error: No more than two parameters are accepted.
@echo Starting the interactive mode.

goto imode
)

REM set variables used as data for the file creation
set nameInput=%tempName%
set textfileName=%2

REM check if the file already exists with the same name
REM if exists print an error message to the user and go to imode
if exist c:\user_records\%textfileName%.txt (
@echo Error: Invalid UserName. File already exists.
@echo Starting the interactive mode.

goto imode
)

REM getting the date and time for the file creation
for /f "tokens=2 delims==" %%a in ('wmic OS Get localdatetime /value')
do set "dt=%%a"
set "YY=%dt:~2,2%" & set "YYYY=%dt:~0,4%" & set "MM=%dt:~4,2%" & set
"DD=%dt:~6,2%"
```

```
set "HH=%dt:~8,2%" & set "Min=%dt:~10,2%" & set "Sec=%dt:~12,2%"
set "fullstamp=%DD%/%MM%/%YYYY%:%HH%:%Min%:%Sec%"

REM print the user data in the file
(
echo(%nameInput%
echo(%textfileName%
echo(%fullstamp%

) >> C:\user_records\%textfileName%.txt

REM display success message to the user
goto displayMessage

REM this is the interactive mode asking the user for input
:imode
set /p tempName=What is your name?
set /p textfileName=What is your chosen username?

REM Check if the user didn't input anything
REM if so print an error message and ask for the input again by
REM restarting interactive mode
if "%tempName%"=="" (
@echo Error: Name input was empty/blank.
@echo Please insert your data again.

goto imode
)

REM Check if the user didn't input anything
REM if so print an error message and ask for the input again by
REM restarting interactive mode
if "%textfileName%%"=="" (
@echo Error: User Name input was empty/blank.
@echo Please insert your data again.

goto imode
)

REM remove any quotation marks
set tempName=%tempName:"=%

set nameInput=%tempName%

if exist c:\user_records\%textfilename%.txt (
@echo Error: Invalid UserName. File already exists.
@echo Restarting the interactive mode.

goto imode
)

REM getting the date and time for the file creation
REM Based on code found on the web(check references) (Selix, 2005)
for /f "tokens=2 delims==" %%a in ('wmic OS Get localdatetime /value')
do set "dt=%%a"
set "YY=%dt:~2,2%" & set "YYYY=%dt:~0,4%" & set "MM=%dt:~4,2%" & set
"DD=%dt:~6,2%"
set "HH=%dt:~8,2%" & set "Min=%dt:~10,2%" & set "Sec=%dt:~12,2%"
set "fullstamp=%DD%/%MM%/%YYYY%:%HH%:%Min%:%Sec%"
```

```
REM print the user data in the file
(
echo(%nameInput%
echo(%textfileName%
echo(%fullstamp%

) >> C:\user_records\%textfileName%.txt

REM display success message to the user
:displayMessage
@echo Your file has been created and is in C:\user_records directory.
@echo It is named %textfileName%.txt

REM deleting the variables stored
set nameInput=
set textfileName=
set fullstamp=
set tempName=
set YY=
set YYYY=
set MM=
set DD=
set HH=
set Min=
set Sec=

pause
```

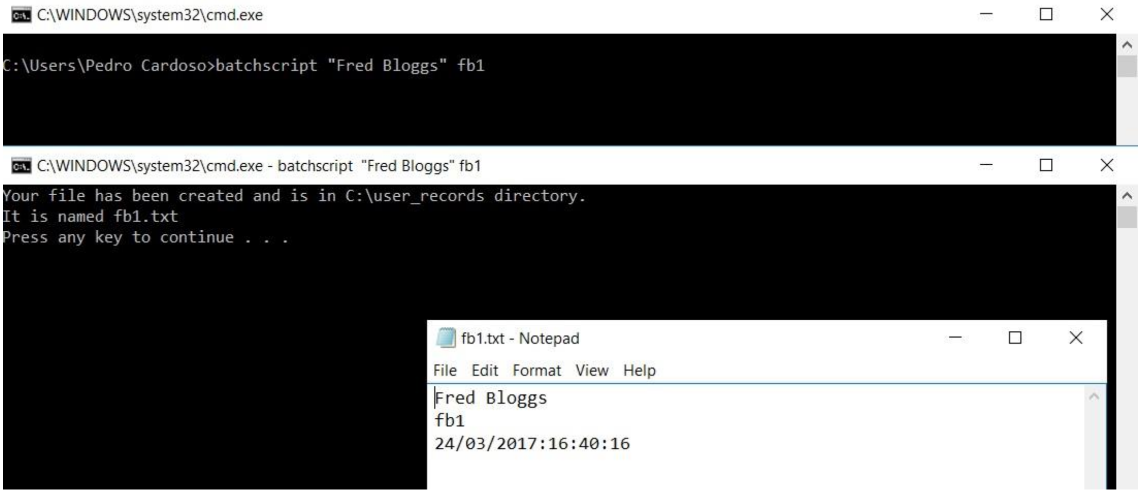
Screenshots


C:\WINDOWS\system32\cmd.exe - batchscript
fb1.txt - Notepad
File Edit Format View Help

```
What is your name? "Fred Bloggs"
What is your chosen username? fb1
Your file has been created and is in C:\user_records directory.
It is named fb1.txt
Press any key to continue . . .
```

```
Fred Bloggs
fb1
24/03/2017:16:37:56
```

Figure 1-Screenshot of the program working in interactive mode.

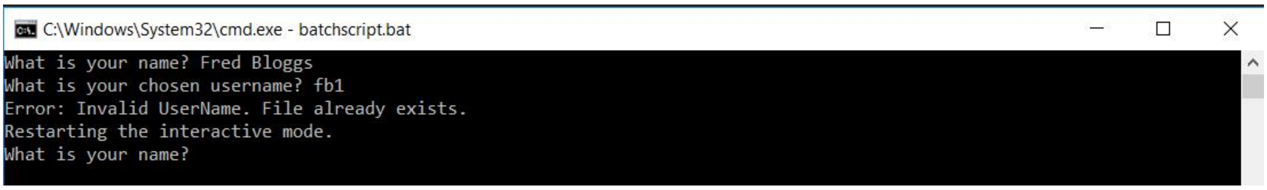

C:\WINDOWS\system32\cmd.exe
C:\WINDOWS\system32\cmd.exe - batchscript "Fred Bloggs" fb1
fb1.txt - Notepad
File Edit Format View Help

```
C:\Users\Pedro Cardoso>batchscript "Fred Bloggs" fb1
```

```
Your file has been created and is in C:\user_records directory.
It is named fb1.txt
Press any key to continue . . .
```

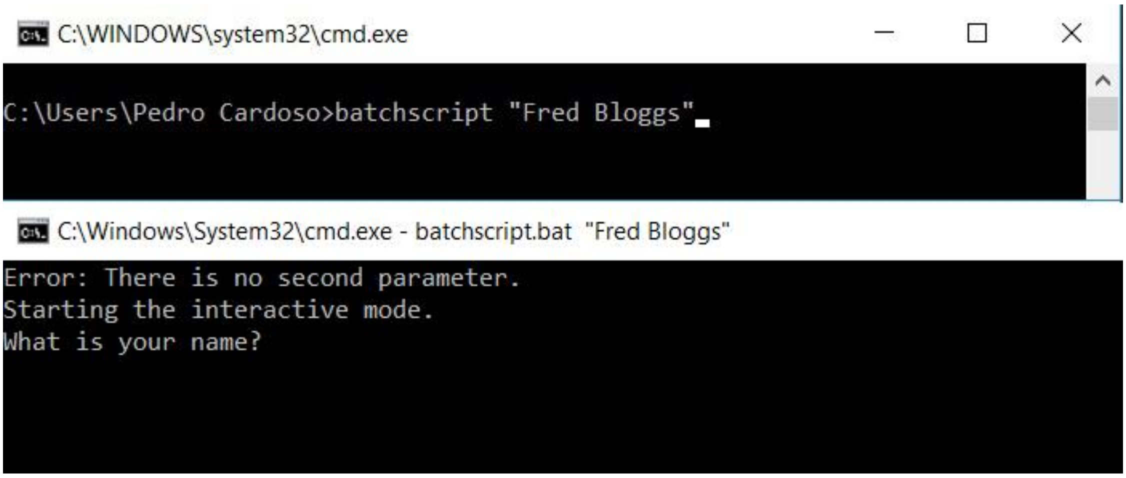
```
Fred Bloggs
fb1
24/03/2017:16:40:16
```

Figure 2-Screenshot of the program working in non-interactive mode.



```
What is your name? Fred Bloggs
What is your chosen username? fb1
Error: Invalid UserName. File already exists.
Restarting the interactive mode.
What is your name?
```

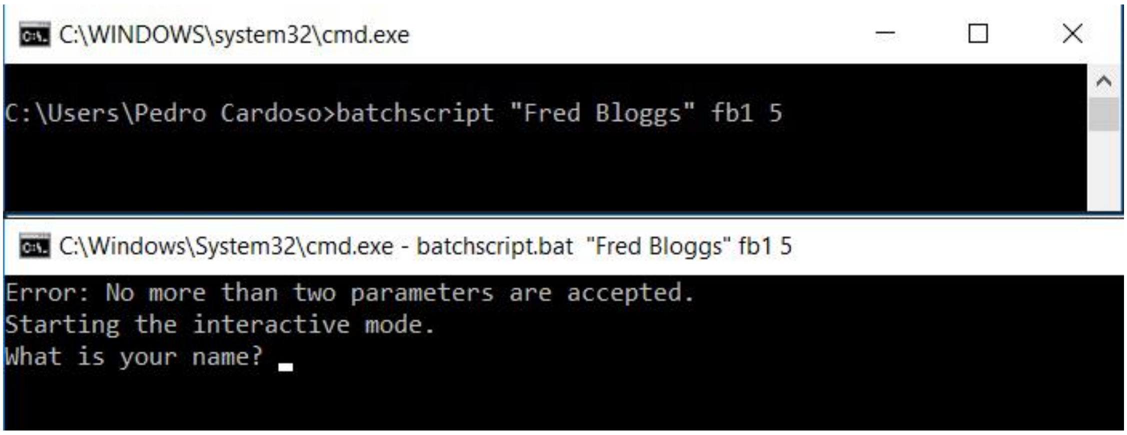
Figure 3- Inserting a user name that already exists makes the program ask for input again. Preventing the user from overwritting an existing file.


C:\WINDOWS\system32\cmd.exe
C:\Windows\System32\cmd.exe - batchscript.bat "Fred Bloggs"

```
C:\Users\Pedro Cardoso>batchscript "Fred Bloggs"_
```

```
Error: There is no second parameter.
Starting the interactive mode.
What is your name?
```

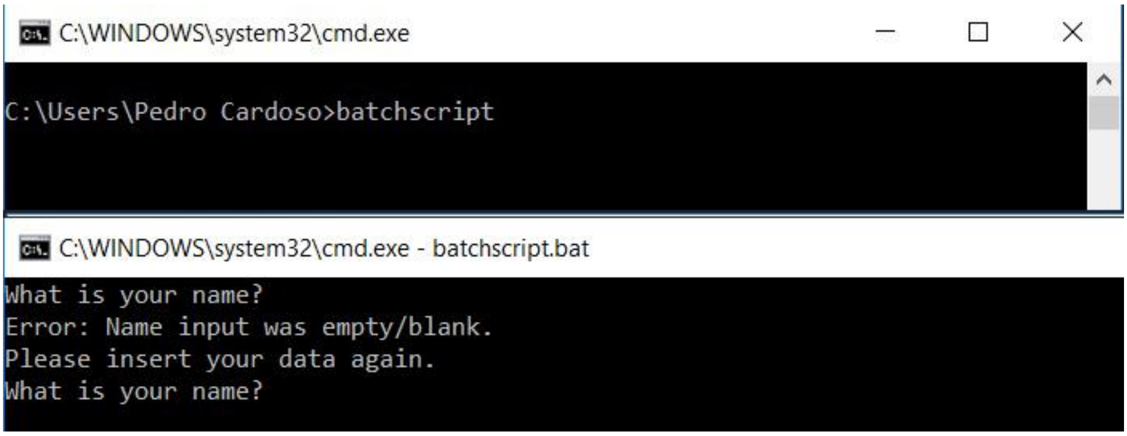
Figure 4- Running the non-interactive mode with just one parameter will cause the program to start interactive mode and ask for user input again.


C:\WINDOWS\system32\cmd.exe
C:\Windows\System32\cmd.exe - batchscript.bat "Fred Bloggs" fb1 5

```
C:\Users\Pedro Cardoso>batchscript "Fred Bloggs" fb1 5
```

```
Error: No more than two parameters are accepted.
Starting the interactive mode.
What is your name? _
```

Figure 5-Running the non-interactive mode with more than two parameters will cause the program to start interactive mode and ask for user input again.


C:\WINDOWS\system32\cmd.exe
C:\WINDOWS\system32\cmd.exe - batchscript.bat

```
C:\Users\Pedro Cardoso>batchscript
```

```
What is your name?
Error: Name input was empty/blank.
Please insert your data again.
What is your name?
```

Figure 6- The program will check if the input is empty. If that is true the program will then ask for the user input once again.

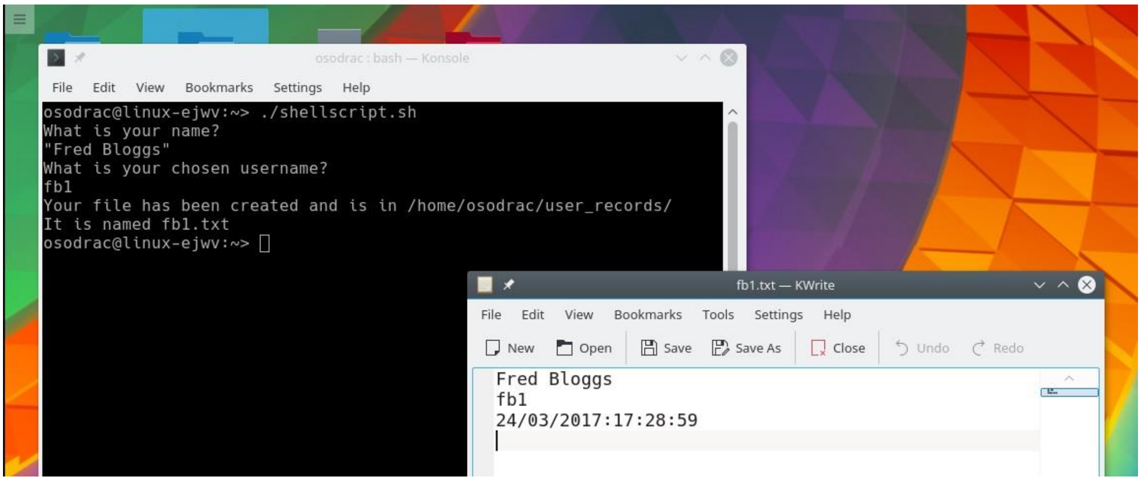
Shell Script Program

The code layout

```
#!/bin/bash

#Creating a directory if it doesnt exist already
mkdir -p -- "user_records"

#index for the loop condition, set default value to 1
loopindex=1

#variable to prevent the loop  to iterate over and over again when an
error occurs
#will be used in an if statement as long as a parameter check
#default value is 1
ifFlag=1

#while loop that keeps iterating untill the user gives the correct
input
while [[ loopindex -eq 1 ]]; do
    #statements

    #if no parameters are added the go to interactive mode
    if [ $# == 0 ] || [[ ifFlag -eq 0 ]]
        then
        #Interactive mode
        #Ask the user for input
        echo What is your name?
        read tempName

        #check if the input is empty
        if [ -z "$tempName" ]
            then
            echo ERROR: The name input was empty/blank.
            echo Please insert your data again.
            #skip the rest of the loop iteration
            continue
        fi

        #removing the double quotes
        nameInput="${tempName%\"}"
        nameInput="${nameInput#\"}"

        #Ask the user for their username
        echo What is your chosen username?
        read textFileName

        #check if the input is empty
        if [ -z "$textFileName" ]
            then
            echo ERROR: The user name input was empty/blank.
            echo Please insert your data again.
            #skip the rest of the loop iteration
            continue
        fi
```

```
      #check if the file already exists
        if [ -f ~/user_records/$textFileName.txt ]
            then
            echo ERROR: Invalid UserName. File already exists.
            echo Please insert your data again.
            #skip the rest of the loop iteration
            continue
        fi

        #get the date and the time
        dateNow=$(date +"%d/%m/%Y")
        timeNow=$(date +"%T")

        #variable that hold data in a single string for the file
        fullStamp=$dateNow:$timeNow

        #append all the information to a file
        echo $nameInput >>~/user_records/$textFileName.txt
        echo $textFileName>>~/user_records/$textFileName.txt
        echo $fullStamp >>~/user_records/$textFileName.txt

        #display to the user a success message
        echo Your file has been created and is in ~/user_records/
        echo It is named $textFileName.txt

        #deleting variable content
        dateNow=""
        timeNow=""
        nameInput=""
        textFileName=""
        fullStamp=""
        tempName=""
        break

    #end of the interactive mode
    fi

    #check if there is a second parameter
    if [ "$2" == "" ]
        then
        echo ERROR: There is no second parameter.

  #change the ifflag value because we want the if statement to run
#but we have more than 0 parameters so this will make it run [ $# == 0
#] || [[ ifFlag -eq 0 ]]
        ifFlag=0

        echo Starting the interactive mode.

        #skip the rest of the loop iteration
        continue

    #check if there is more than 2 parameters
    elif [ $# -gt 2 ]
        then
        echo ERROR: No more than two parameters are accepted.

      #change the ifflag value because we want the if statement to run
      #on the start of the interactive mode
        ifFlag=0
        echo Starting the interactive mode.

        #skip the rest of the loop iteration
        continue

    #Non interactive mode
    else
        nameInput=$1
        textFileName=$2

        #check if the file already exists
        if [ -f ~/user_records/$textFileName.txt ]
            then
            echo ERROR: Invalid UserName. File already exists.

      #change the ifflag value because we want the if statement to run
            #on the start of the interactive mode
            ifFlag=0

            echo Starting the interactive mode.

            #skip the rest of the loop iteration
            continue
        fi

        #get the date and the time
        dateNow=$(date +"%d/%m/%Y")
        timeNow=$(date +"%T")

        #variable that hold data in a single string for the file
        fullStamp=$dateNow:$timeNow

        #append all the data to a file
        echo $nameInput >>~/user_records/$textFileName.txt
        echo $textFileName>>~/user_records/$textFileName.txt
        echo $fullStamp >>~/user_records/$textFileName.txt

        #display to the user a success message
        echo Your file has been created and is in ~/user_records/
        echo It is named $textFileName.txt

        #deleting variable content
        dateNow=""
        timeNow=""
        nameInput=""
        textFileName=""
        fullStamp=""
        tempName=""
        loopindex=""
        ifFlag=""

    #end of the Non interactive mode
    fi

    #break command to stop the loop
    break

done

#exit the program
exit
```

Screenshots

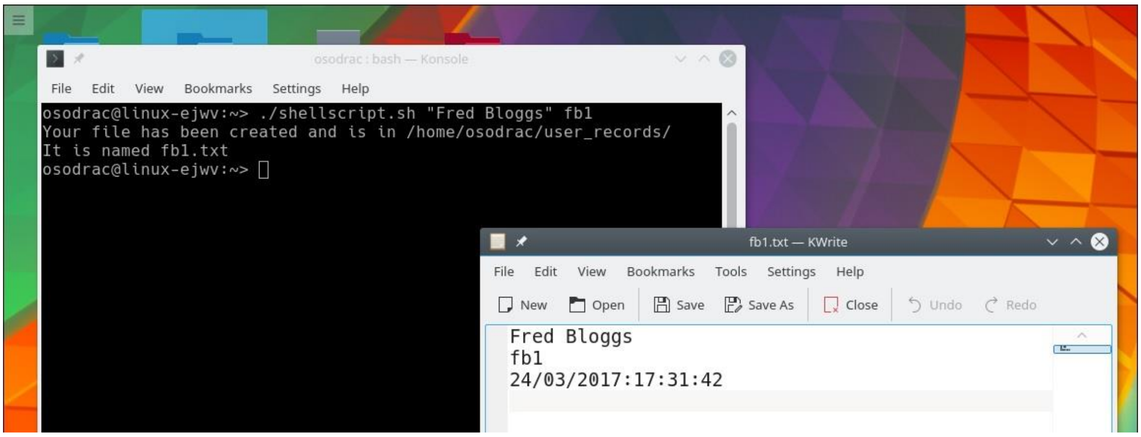


osodrac : bash — Konsole
File Edit View Bookmarks Settings Help
fb1.txt — KWrite
File Edit View Bookmarks Tools Settings Help
New Open Save Save As Close Undo Redo

```
osodrac@linux-ejwv:~> ./shellscript.sh
What is your name?
"Fred Bloggs"
What is your chosen username?
fb1
Your file has been created and is in /home/osodrac/user_records/
It is named fb1.txt
osodrac@linux-ejwv:~>
```

```
Fred Bloggs
fb1
24/03/2017:17:28:59
```

Figure 7-Screenshot of the program working in interactive mode.

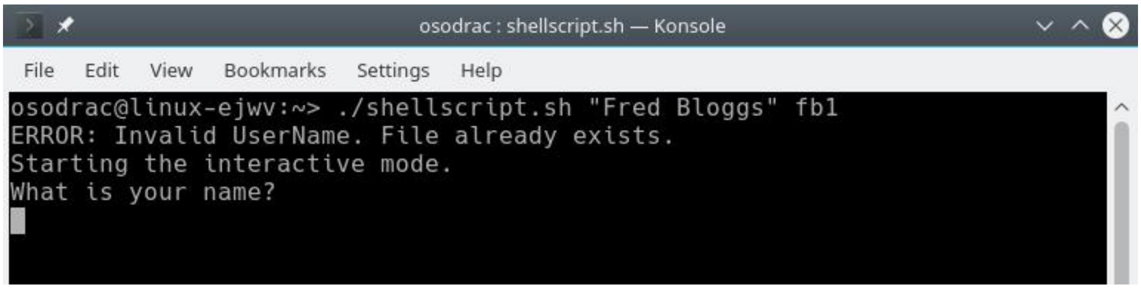


osodrac : bash — Konsole
File Edit View Bookmarks Settings Help
fb1.txt — KWrite
File Edit View Bookmarks Tools Settings Help
New Open Save Save As Close Undo Redo

```
osodrac@linux-ejwv:~> ./shellscript.sh "Fred Bloggs" fb1
Your file has been created and is in /home/osodrac/user_records/
It is named fb1.txt
osodrac@linux-ejwv:~>
```

```
Fred Bloggs
fb1
24/03/2017:17:31:42
```

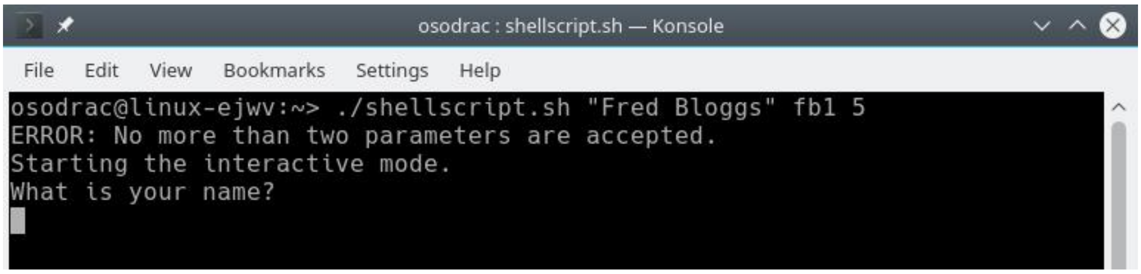
Figure 8- Screenshot of the program working in non-interactive mode.



osodrac : shellscript.sh — Konsole
File Edit View Bookmarks Settings Help

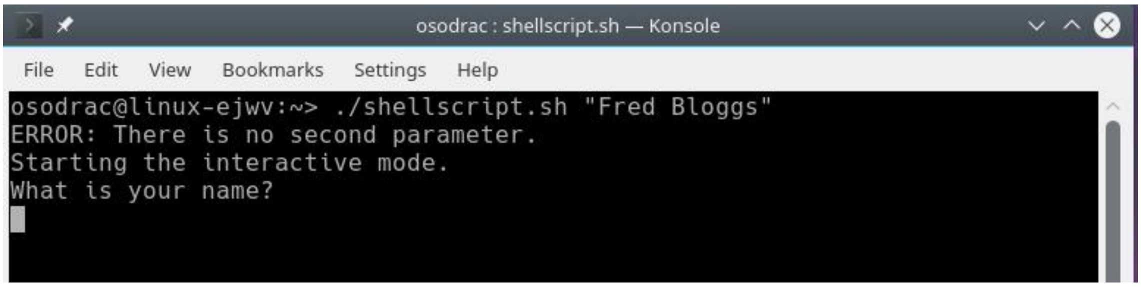
```
osodrac@linux-ejwv:~> ./shellscript.sh "Fred Bloggs" fb1
ERROR: Invalid UserName. File already exists.
Starting the interactive mode.
What is your name?
```

Figure 9- Inserting a user name that already exists makes the program ask for input again. Preventing the user from overwritting an existing file.



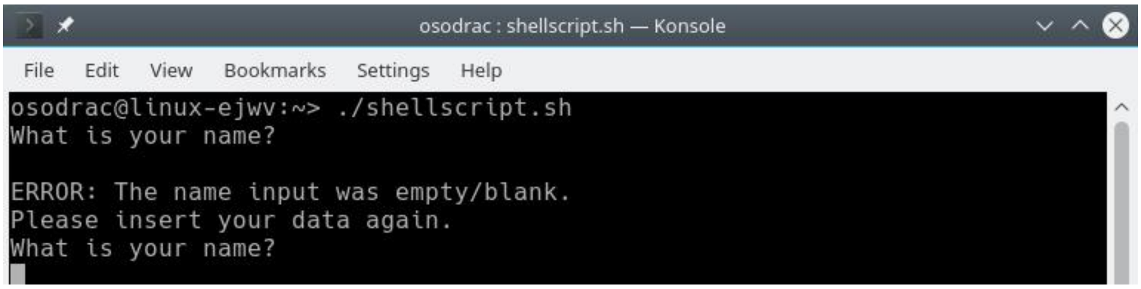
```
osodrac@linux-ejwv:~> ./shellscript.sh "Fred Bloggs" fb1 5
ERROR: No more than two parameters are accepted.
Starting the interactive mode.
What is your name?
```

Figure 10- Running the non-interactive mode with just one parameter will cause the program to start interactive mode and ask for user input again.



```
osodrac@linux-ejwv:~> ./shellscript.sh "Fred Bloggs"
ERROR: There is no second parameter.
Starting the interactive mode.
What is your name?
```

Figure 11- Running the non-interactive mode with more than two parameters will cause the program to start interactive mode and ask for user input again.



```
osodrac@linux-ejwv:~> ./shellscript.sh
What is your name?

ERROR: The name input was empty/blank.
Please insert your data again.
What is your name?
```

Figure 12- The program will check if the input is empty. If that is true the program will then ask for the user input once again.

References

Selix, J., 2005. *Tech-Recipes.* [Online]
Available at: http://www.tech-recipes.com/rx/956/windows-batch-file-bat-to-get-current-date-in-mmddyyyy-format/
[Accessed 27 April 2017].