# Solution M7 (@VasAtanasov)

### Solution Details

**CHECK:** <https://courses.zahariev.pro/check.php?20250421153958gCtz1V9IuL>

1. Create a script named **user-data.sh** that when started will ask the user for:
   1. First name
   2. Last name
   3. Place of birth

Then it will append the collected data to a file **/tmp/user-data.dat**.

vasil@debian:~$ vi user-data.sh

#!/bin/bash

# If 3 arguments are passed, use them directly

if [ "$#" -eq 3 ]; then

fname="$1"

lname="$2"

place="$3"

else

# Otherwise, ask the user interactively

read -p "Enter First Name: " fname

read -p "Enter Last Name: " lname

read -p "Enter Place of Birth: " place

fi

# Append to file

echo "${fname};${lname};${place}" | tee -a /tmp/user-data.dat

vasil@debian:~$ chmod +u user-data.sh

vasil@debian:~$ ./user-data.sh

1. Execute the script several times (**3 to 5**) with **different** **answers** each time using a test data file.

vasil@debian:~$ cat << EOL > test-users.txt

John Doe London

Jane Smith Paris

Alice Brown Berlin

Mark Twain Vienna

Lara Croft Sofia

EOL

vasil@debian:~$ xargs -n 3 ./user-data.sh < test-users.txt

1. Create a script named **show-data.sh** that when started with a parameter **a file name** (the one from the previous exercise) will display the information from it in the following format. If executed **without** parameters or with **incorrect** number of parameters to **display** help **message** and **quit**.

vasil@debian:~$ vi show-data.sh

#!/bin/bash

# Check for exactly one parameter

if [ "$#" -ne 1 ]; then

echo "Usage: $0 <data-file>"

exit 1

fi

file="$1"

# Check if file exists

if [ ! -f "$file" ]; then

echo "Error: File '$file' does not exist."

exit 2

fi

# Display formatted output+5

n=1

while IFS= read -r line; do

echo "Row #$n: $line"

((n++))

done < "$file"

vasil@debian:~$ chmod +u show-data.sh

vasil@debian:~$ ./show-data.sh /tmp/user-data.dat

1. Create a script named **archiver.sh** that will accept two parameters on the command line (without the a.,b.):
   1. Folder to archive
   2. Name (and path) of the resulting archive

When **executed** with the **two** **parameters** to create a **tar+gz** archive. If executed with **incorrect** **number** of parameters or their **values** are **incorrect** (parameters should follow the rules):

1. First parameter should be always an existing folder
2. Second parameter should be non-existing file
3. To display **help message** and to **exit**.

vasil@debian:~$ vi archiver.sh

#!/bin/bash

# Help function

show\_help() {

echo "Usage: $0 <folder-to-archive> <archive-name.tar.gz>"

echo " - First argument must be an existing folder."

echo " - Second argument must be a non-existing file."

}

# Check arguments

if [ "$#" -ne 2 ]; then

show\_help

exit 1

fi

folder="$1"

archive="$2"

# Validate folder

if [ ! -d "$folder" ]; then

echo "Error: '$folder' is not a valid directory."

show\_help

exit 2

fi

# Validate archive

if [ -e "$archive" ]; then

echo "Error: Archive file '$archive' already exists."

show\_help

exit 3

fi

# Create the archive

tar -czf "$archive" "$folder"

echo "Archive created at $archive"

vasil@debian:~$ chmod +x archiver.sh

vasil@debian:~$ ./archiver.sh /path/to/folder /path/to/archive.tar.gz

### Result

vasil@debian:~$ wget -q https://courses.zahariev.pro/m7.sh -O - | bash

\* Working on Debian-based x86\_64 machine (BIOS) using wget to report

\* Testing if ~/user-data.sh file exists and is executable ...

... PASS

\* Testing if ~/user-data.sh file has the required parts ...

... PASS

\* Testing if ~/user-data.sh file is working as expected ...

... PASS

\* Testing if ~/user-data.sh has been executed at least 3 times ...

... PASS

\* Testing if ~/show-data.sh file exists and is executable ...

... PASS

\* Testing if ~/show-data.sh file has the required parts ...

... PASS

\* Testing if ~/show-data.sh file is working as expected #1 (with params) ...

... PASS

\* Testing if ~/show-data.sh file is working as expected #2 (no params) ...

... PASS

\* Testing if ~/archiver.sh file exists and is executable ...

... PASS

\* Testing if ~/archiver.sh file has the required parts ...

... PASS

\* Testing if ~/archiver.sh file is working as expected #1 (no params) ...

... PASS

\* Testing if ~/archiver.sh file is working as expected #2 (one param - exising file) ...

... PASS

\* Testing if ~/archiver.sh file is working as expected #3 (one param - non existing dir) ...

... PASS

\* Testing if ~/archiver.sh file is working as expected #4 (two params - existing file) ...

... PASS

\* Testing if ~/archiver.sh file is working as expected #5 (two params - correct) ...

... PASS

{"message":"Your solution report is available here: https:\/\/courses.zahariev.pro\/check.php?20250421153958gCtz1V9IuL","status":true}

{

"homework": {

"date": "2025-04-21 18:39:58",

"vm": 1,

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"fware": "BIOS",

"family": "Debian",

"distribution": "Debian GNU/Linux 12 (bookworm)",

"module": 7,

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"result": "PASS"

},

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"name": "Testing if ~/user-data.sh file has the required parts",

"result": "PASS"

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"name": "Testing if ~/user-data.sh file is working as expected",

"result": "PASS"

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"name": "Testing if ~/user-data.sh has been executed at least 3 times",

"result": "PASS"

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"name": "Testing if ~/show-data.sh file exists and is executable",

"result": "PASS"

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"name": "Testing if ~/show-data.sh file has the required parts",

"result": "PASS"

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"name": "Testing if ~/show-data.sh file is working as expected #1 (with params)",

"result": "PASS"

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"name": "Testing if ~/show-data.sh file is working as expected #2 (no params)",

"result": "PASS"

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"result": "PASS"

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"name": "Testing if ~/archiver.sh file is working as expected #1 (no params)",

"result": "PASS"

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"name": "Testing if ~/archiver.sh file is working as expected #2 (one param - exising file)",

"result": "PASS"

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"name": "Testing if ~/archiver.sh file is working as expected #3 (one param - non existing dir)",

"result": "PASS"

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"id": 14,

"name": "Testing if ~/archiver.sh file is working as expected #4 (two params - existing file)",

"result": "PASS"

},

{

"id": 15,

"name": "Testing if ~/archiver.sh file is working as expected #5 (two params - correct)",

"result": "PASS"

}

]

}

}