Seminar #6

## Project example

In this example we are working with a very simple database and we have functions for adding, deleting, searching and updating the records in our database. Our “database” will contain information about the students of a faculty: name and surname, group number, phone number and date of birth. The file that will contain this information is called ***stud****.*

We also assume that the functions are defined in a file called ***functions****.*

## Here are the definitions of the functions:

function add\_f()

{ while true

do

echo "Adding info..."

read -p "Name and surname of the student:" name

read -p "Group no of the student:" group

read -p "Phone no:" phone

read -p "Date of birth: (dd/mm/yyyy)" bdate

echo $name:$group:$phone:$bdate

read -p "The data is correct?(y/n)" answ

case "$answ" in

[Yy])

echo "Adding info to the database..."

echo $name:$group:$phone:$bdate >> stud

sort -u stud -o stud

echo "Do you want to continue?(y/n)"

read answ

if [ $answ = "Y" -o $answ = "y" ]

then continue

else return

fi;;

\*) echo "Try it again?(y/n)"

read answ

case "$answ" in

[Yy]) continue;;

[Nn]) return;;

\*) echo "Invalid option!";;

esac;;

esac

done

}

function delete\_f()

{

echo "Deleting info..."

echo -e "Enter name to delete (<ENTER> to exit):\c"

read name

if [ "$name" = "" ]

then continue

fi

sed -e /"$name"/d stud > stud.new

mv stud.new stud

cat stud

read -p "Press ENTER to continue..." key

}

function search\_f()

{

echo -e "\n Enter name to search:\c"; read name

grep -i "$name" stud > /dev/null

if [ "$?" -eq 0 ]

then

echo "--------------------"

grep -i "$name" stud

echo "--------------------"

else

echo "$name not found in the phone list!!"

fi

read -p "Press ENTER to continue" key

}

function update\_f()

{

echo -e "\n Enter phone number to modify:\c"; read old\_phone

echo -e "\n Enter the new phone number to modify:\c"; read new\_phone

sed s/"$old\_phone"/"$new\_phone"/ stud > stud.new

if [ $? -eq 0 ]

then

echo "Ok! Change made!"

mv stud.new stud

else

echo "Error!"

fi

}

## Here is the main program (shell-script) that calls the functions from the *functions file*:

#!/bin/bash

# The name of the shell-script: db\_program

# This shell-script will call the functions

f=./stud # f stores the filename with students, called *stud*, which is located in the

# current directory

.functions # The dot command loads the functions in memory

if [ ! -f $f ]

then

echo "`basename $f` does not exist!" 1>&2

exit 1

fi

while true

**do**

select OPTION in view add delete update search out

**do**

case $OPTION in

view) more stud;;

add) add\_f # Calling the *add* function

;;

delete) delete\_f # Calling the *delete* function

;;

update) update\_f # Calling the *update* function

;;

search) search\_f # Calling the *search* function

;;

exit) echo Bye-bye!; exit 0;;

\*) echo "ERROR: Invalid selection";;

esac

**done**

**done**