Home work Bash 3.

1. Создаём функцию в существующем скрипте для проверки пустого значения аргумента.

```
#Assignment of arguments
user_name=$1
home_folder=$2
ssh_access=$3
enable=$4

#function for checking empty value
empty_value()
{
   if [ -z $user_name ]
   then
      echo "Argument user_name is empty"
      exit 1
   fi

   if [ -z $home_folder ]
   then
      echo "Argument home_folder is empty. ""/home/$user_name"" will be used as the home directory"
   else
      echo "Home directory will be created and named $home_folder"
   fi
}

empty_value
```

```
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh
Argument user_name is empty
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh Oleg
Argument home_folder is empty. /home/Oleg will be used as the home directory
Creating user: Oleg
Oleg has been created
Home directory /home/Oleg has been created
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: password updated successfully
./create_user_full_script.sh: line 114: [: ==: unary operator expected
./create_user_full_script.sh: line 121: [: ==: unary operator expected
Disable account: Oleg
--------------------------------
User Oleg has been created!
alex@alex-VirtualBox:~/projects/TeachMeSkills$ cd /home
alex@alex-VirtualBox:/home$ ls
alex  aliaksei  Oleg
alex@alex-VirtualBox:/home$ ./create_user_full_script.sh Maksim /home/Maksim
bash: ./create_user_full_script.sh: No such file or directory
alex@alex-VirtualBox:/home$ cd
alex@alex-VirtualBox:~$ cd projects/TeachMeSkills/
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh Maksim /home/Maksim
Home directory will be created and named /home/Maksim
Creating user: Maksim
Maksim has been created
Home directory /home/Maksim has been created
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: password updated successfully
./create_user_full_script.sh: line 114: [: ==: unary operator expected
./create_user_full_script.sh: line 121: [: ==: unary operator expected
Disable account: Maksim
--------------------------------
User Maksim has been created!
alex@alex-VirtualBox:~/projects/TeachMeSkills$
```

2. Создаём функцию для проверки количества символов в имени пользователя и его домашней директории.

```
empty_value

#function for checking string lenght
str_lenght()
{
    if [ ${#user_name} -gt 10 ]
    then
        echo "Value $user_name is longer than 10 characters"
        exit 1
    fi

    if [ ${#home_folder} -gt 15 ]
    then
        echo "Value $home_folder is longer than 15 characters"
        exit 1
    fi
}

str_lenght
```

```
alex@alex-VirtualBox:~/projects/TeachMeSkills$ nano create_user_full_script.sh
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh zzzzzzzzzzzzzzzzzzzz
zzzzzzz
Argument home_folder is empty. /home/zzzzzzzzzzzzzzzzzzzzzzzzzzzz will be used as the home direct
ory
Value zzzzzzzzzzzzzzzzzzzzzzzzzzzz is longer than 10 characters
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh zzzzz /home/zzzzzzzzz
zzzzzzzzzzzzzzzzzzzzzzzzz
Home directory will be created and named /home/zzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzz
Value /home/zzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzz is longer than 15 characters
alex@alex-VirtualBox:~/projects/TeachMeSkills$
```

3. Создаём массив, который выводит на экран все введённые аргументы пользователя.

```bash
#print array of values
declare -A user_data

for ((i=1; i<=$#; i++))
do
    argument="${!i}"
    user_data[$i]=$argument
done

echo "You entered the following data to create a user:"
for key in "${!user_data[@]}"
do
    echo "Argument $key: ${user_data[$key]}"
done
```

```
vutue /home/zzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzz tu tunger chun 15 churucters
alex@alex-VirtualBox:~/projects/TeachMeSkills$ nano create_user_full_script.sh
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh zzzzz /home/zzzzz yes n
o
Home directory will be created and named /home/zzzzz
You entered the following data to create a user:
Argument 4: no
Argument 3: yes
Argument 2: /home/zzzzz
Argument 1: zzzzz
```

4. Создаём форму запроса STDIN от пользователя.

```bash
#STDIN for user
declare -A user_data

echo "Enter username:"
read user_data["User name"]

echo "Enter work directory"
read user_data["Work directory"]

echo "Enter ssh access yes or no:"
read user_data["ssh access"]

echo "Enter enable user yes or no:"
read user_data["enable"]

for key in "${!user_data[@]}"
do
    echo "Argument $key: ${user_data[$key]}"
done
```

```
alex@alex-VirtualBox:~/projects/TeachMeSkills$ nano create_user_full_script.sh
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh
Enter username:
Jon
Enter work directory
/home/Jon
Enter ssh access yes or no:
no
Enter enable user yes or no:
yes
Argument User name: Jon
Argument ssh access: no
Argument enable: yes
Argument Work directory: /home/Jon
Argument user_name is empty
```

5. Добавляем функционал создания группы пользователя через STDIN.

```
#Create user group
echo "Enter user group name:"
read group_name

sudo groupadd "$group_name"
sudo usermod -aG "$group_name" "$user_name"

echo "Group - $group_name was created and user - $user_name was added to $group_name"
```

```
alex@alex-VirtualBox:~/projects/TeachMeSkills$ nano create_user_full_script.sh
alex@alex-VirtualBox:~/projects/TeachMeSkills$ ./create_user_full_script.sh Sam /home/Sam yes yes
Home directory will be created and named /home/Sam
You entered the following data to create a user:
Argument 4: yes
Argument 3: yes
Argument 2: /home/Sam
Argument 1: Sam
Sam has been created
Home directory /home/Sam has been created
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: password updated successfully
Enabling user ssh access: Sam
Enable account: Sam
usermod: no changes
---------------------------------
User Sam has been created!
Enter user group name:
Sam_group
Group - Sam_group was created and user - Sam was added to Sam_group
alex@alex-VirtualBox:~/projects/TeachMeSkills$ id -Gn Sam
Sam ssh Sam_group
```