

Отчёт по по лабораторной работе №5

Операционные системы

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Цель работы

Настройка рабочей среды с помощью менеджера паролей pass.

Задание

1. Установить необходимое программное обеспечение.
2. Изучить принцип работы менеджера паролей pass.
3. Установить дополнительное программное обеспечение.

Теоретическое введение

Менеджер паролей pass создан в рамках идеологии Unix. В нём данные хранятся в файловой системе в виде каталогов и файлов. Файлы шифруются с помощью GPG-ключа.

Структура базы паролей может быть произвольной. Если необходимо использовать дополнительное программное обеспечение, семантику необходимо заложить в структуру базы паролей.

На данный момент существует 2 основных реализации: pass и gopass.

Выполнение лабораторной работы

Устанавливаю gopass.

```

asvedjmina@asvedjmina-Modern-15-B12M:~$ sudo apt-get install gopass
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  gopass
0 upgraded, 1 newly installed, 0 to remove and 88 not upgraded.
Need to get 635 kB of archives.
After this operation, 2 037 kB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 gopass amd64 1.2.0-2 [635 kB]
Fetched 635 kB in 0s (1 639 kB/s)
Selecting previously unselected package gopass.
(Reading database ... 206067 files and directories currently installed.)
Preparing to unpack .../gopass_1.2.0-2_amd64.deb ...
Unpacking gopass (1.2.0-2) ...
Setting up gopass (1.2.0-2) ...
Processing triggers for man-db (2.9.1-1) ...
asvedjmina@asvedjmina-Modern-15-B12M:~$

```

Установка gopass

Устанавливаю менеджер паролей pass.

```

asvedjmina@asvedjmina-Modern-15-B12M:~$ sudo apt-get install pass
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libqrencode4 qrencode tree
Suggested packages:
  python libxml-simple-perl ruby
The following NEW packages will be installed:
  libqrencode4 pass qrencode tree
0 upgraded, 4 newly installed, 0 to remove and 88 not upgraded.
Need to get 128 kB of archives.
After this operation, 404 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 libqrencode4 amd64 4.0.2-2 [23,6 kB]
Get:2 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 tree amd64 1.8.0-1 [43,0 kB]
Get:3 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 pass all 1.7.3-2 [37,6 kB]
Get:4 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 qrencode amd64 4.

```

Установка pass

Просматриваю список имеющихся ключей. Так как список пуст, создаю новый ключ.

```

asvedjmina@asvedjmina-Modern-15-B12M:~$ gpg --list-secret-keys
asvedjmina@asvedjmina-Modern-15-B12M:~$ gpg --full-generate-key
gpg (GnuPG) 2.2.19; Copyright (C) 2019 Free Software Foundation, Inc.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.

Please select what kind of key you want:
  (1) RSA and RSA (default)
  (2) DSA and Elgamal
  (3) DSA (sign only)
  (4) RSA (sign only)
  (14) Existing key from card
Your selection? 1
RSA keys may be between 1024 and 4096 bits long.
What keysize do you want? (3072) 1024
Requested keysize is 1024 bits
Please specify how long the key should be valid.
    0 = key does not expire
    <n> = key expires in n days
    <n>w = key expires in n weeks
    <n>m = key expires in n months
    <n>y = key expires in n years
Key is valid for? (0) 0
Key does not expire at all
Is this correct? (y/N) y

GnuPG needs to construct a user ID to identify your key.

Real name: alexandra

```

Создание ключа GPG

Инициализирую хранилище.

```

asvedjmina@asvedjmina-Modern-15-B12M:~$ pass init vedmina027@gmail.com
mkdir: created directory '/home/asvedjmina/.password-store/'
Password store initialized for vedmina027@gmail.com
asvedjmina@asvedjmina-Modern-15-B12M:~$

```

Инициализация хранилища

Синхронизирую хранилище с git, создавая структуру git и задавая адрес репозитория на хостинге.

```
asvedjmina@asvedjmina-Modern-15-B12M:~$ cd work
asvedjmina@asvedjmina-Modern-15-B12M:~/work$ pass init vedmina027@gmail.com
Password store initialized for vedmina027@gmail.com
asvedjmina@asvedjmina-Modern-15-B12M:~/work$ pass git init
Initialized empty Git repository in /home/asvedjmina/.password-store/.git/
[master (root-commit) ab35fec] Add current contents of password store.
1 file changed, 1 insertion(+)
create mode 100644 .pgp-id
[master 6953ea0] Configure git repository for gpg file diff.
1 file changed, 1 insertion(+)
create mode 100644 .gitattributes
asvedjmina@asvedjmina-Modern-15-B12M:~/work$ pass git remote add origin https://github.
com/asvedjmina/pass.git
asvedjmina@asvedjmina-Modern-15-B12M:~/work$ pass git pull
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.

git pull <remote> <branch>

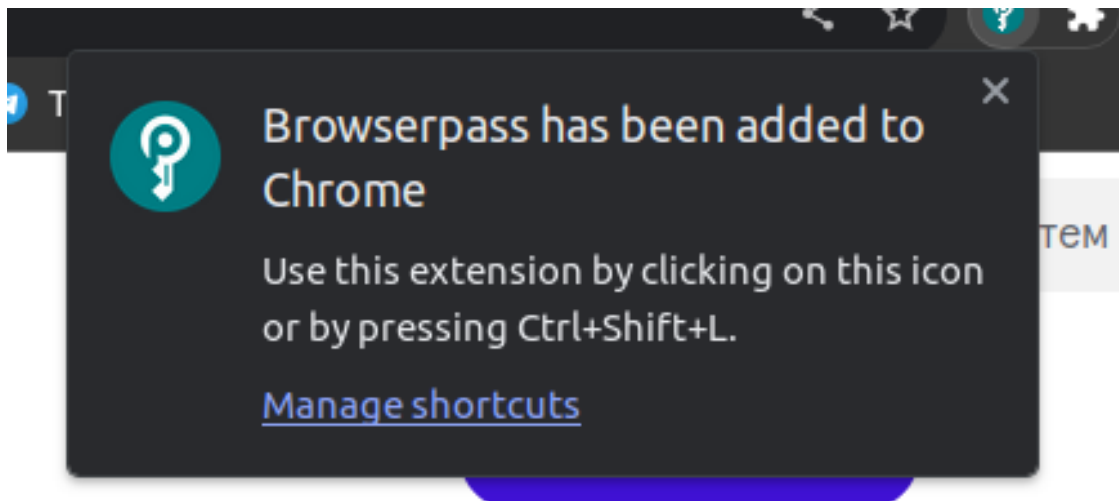
If you wish to set tracking information for this branch you can do so with:

git branch --set-upstream-to=origin/<branch> master

asvedjmina@asvedjmina-Modern-15-B12M:~/work$
```

Синхронизация с git

Добавляю browserpass в Chrome.



Добавление browserpass

Скачиваю browserpass с помощью sudo apt.

```

asvedjmina@asvedjmina-Modern-15-B12M:~$ sudo apt-get install webext-browserpass
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  fonts-open-sans
The following NEW packages will be installed:
  fonts-open-sans webext-browserpass
0 upgraded, 2 newly installed, 0 to remove and 88 not upgraded.
Need to get 1 874 kB of archives.
After this operation, 7 326 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 fonts-open-sans al
l 1.11-1 [575 kB]
Get:2 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 webext-browserpass
amd64 3.4.1-3 [1 299 kB]
Fetched 1 874 kB in 1s (1 539 kB/s)
Selecting previously unselected package fonts-open-sans.
(Reading database ... 206073 files and directories currently installed.)
Preparing to unpack .../fonts-open-sans_1.11-1_all.deb ...
Unpacking fonts-open-sans (1.11-1) ...
Selecting previously unselected package webext-browserpass.
Preparing to unpack .../webext-browserpass_3.4.1-3_amd64.deb ...

```

Установка browserpass

Устанавливаю дополнительное программное обеспечение.

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt-get install dunst
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  dunst
0 upgraded, 1 newly installed, 0 to remove and 88 not upgraded.
Need to get 70,7 kB of archives.
After this operation, 181 kB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 dunst amd64 1.4.1-
1 [70,7 kB]
Fetched 70,7 kB in 0s (370 kB/s)
Selecting previously unselected package dunst.
(Reading database ... 206140 files and directories currently installed.)
Preparing to unpack .../dunst_1.4.1-1_amd64.deb ...
Unpacking dunst (1.4.1-1) ...
Setting up dunst (1.4.1-1) ...
Created symlink /etc/systemd/user/default.target.wants/dunst.service → /usr/lib/s
ystemd/user/dunst.service.
Processing triggers for man-db (2.9.1-1) ...
asvedjmina@asvedjmina-Modern-15-B12M:~/work$

```

Установка dunst

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install fonts-font-awesome
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  fonts-font-awesome
0 upgraded, 1 newly installed, 0 to remove and 88 not upgraded.
Need to get 514 kB of archives.
After this operation, 1 395 kB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/main amd64 fonts-font-awesome all
5.0.10+really4.7.0~dfsg-1 [514 kB]
Fetched 514 kB in 0s (1 639 kB/s)
Selecting previously unselected package fonts-font-awesome.
(Reading database ... 206151 files and directories currently installed.)
Preparing to unpack .../fonts-font-awesome_5.0.10+really4.7.0~dfsg-1_all.deb ...
Unpacking fonts-font-awesome (5.0.10+really4.7.0~dfsg-1) ...
Setting up fonts-font-awesome (5.0.10+really4.7.0~dfsg-1) ...
Processing triggers for fontconfig (2.13.1-2ubuntu3) ...
asvedjmina@asvedjmina-Modern-15-B12M:~/work$

```

Установка fonts-awesome

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install fonts-powerline
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  fonts-powerline
0 upgraded, 1 newly installed, 0 to remove and 88 not upgraded.
Need to get 5 492 B of archives.
After this operation, 25,6 kB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 fonts-powerline al
l 2.7-3 [5 492 B]
Fetched 5 492 B in 0s (38,0 kB/s)
Selecting previously unselected package fonts-powerline.
(Reading database ... 206211 files and directories currently installed.)
Preparing to unpack .../fonts-powerline_2.7-3_all.deb ...
Unpacking fonts-powerline (2.7-3) ...
Setting up fonts-powerline (2.7-3) ...
Processing triggers for fontconfig (2.13.1-2ubuntu3) ...
asvedjmina@asvedjmina-Modern-15-B12M:~/work$

```

Установка powerline-fonts

```
asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install light
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  light
0 upgraded, 1 newly installed, 0 to remove and 88 not upgraded.
Need to get 18,2 kB of archives.
After this operation, 59,4 kB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 light amd64 1.2.1-3 [18,2 kB]
Fetched 18,2 kB in 0s (108 kB/s)
Selecting previously unselected package light.
(Reading database ... 206217 files and directories currently installed.)
Preparing to unpack .../light_1.2.1-3_amd64.deb ...
Unpacking light (1.2.1-3) ...
Setting up light (1.2.1-3) ...
Processing triggers for man-db (2.9.1-1) ...
asvedjmina@asvedjmina-Modern-15-B12M:~/work$
```

Установка light

```
asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install swaylock
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  swaylock
0 upgraded, 1 newly installed, 0 to remove and 88 not upgraded.
Need to get 28,4 kB of archives.
After this operation, 114 kB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 swaylock amd64 1.5-2 [28,4 kB]
Fetched 28,4 kB in 0s (157 kB/s)
Selecting previously unselected package swaylock.
(Reading database ... 206226 files and directories currently installed.)
Preparing to unpack .../swaylock_1.5-2_amd64.deb ...
Unpacking swaylock (1.5-2) ...
Setting up swaylock (1.5-2) ...
Processing triggers for man-db (2.9.1-1) ...
```

Установка swaylock


```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install kitty
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  kitty-doc kitty-terminfo libjs-jquery libjs-sphinxdoc libjs-underscore
The following NEW packages will be installed:
  kitty kitty-doc kitty-terminfo libjs-jquery libjs-sphinxdoc libjs-underscore
0 upgraded, 6 newly installed, 0 to remove and 88 not upgraded.
Need to get 2 815 kB/3 144 kB of archives.
After this operation, 10,8 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 kitty-term
info all 0.15.0-1ubuntu0.2 [8 740 B]
Get:2 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 kitty amd6
4 0.15.0-1ubuntu0.2 [1 108 kB]
Get:3 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 libjs-undersco
re all 1.9.1-dfsg-1ubuntu0.20.04.1 [99,5 kB]
Get:4 http://ru.archive.ubuntu.com/ubuntu focal/main amd64 libjs-sphinxdoc all 1.
8.5-7ubuntu3 [97,1 kB]
Get:5 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 kitty-doc

```

Установка kitty

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install waybar swaybg
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libjsoncpp1 libmpdclient2
Suggested packages:
  sway
The following NEW packages will be installed:
  libjsoncpp1 libmpdclient2 swaybg waybar
0 upgraded, 4 newly installed, 0 to remove and 88 not upgraded.
Need to get 349 kB/425 kB of archives.
After this operation, 1 434 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 libmpdclient2 amd6
4 2.18-1 [42,5 kB]
Get:2 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 swaybg amd64 1.0-2
[14,2 kB]
Get:3 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 waybar amd64 0.9.0
-1 [293 kB]
Fetched 349 kB in 0s (1 078 kB/s)
Selecting previously unselected package libmpdclient2:amd64

```

Установка warbar swaybg


```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install mpv
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libdvdnav4 libdvdread7 libva-wayland2 python3-pyxdm rtmpdump youtube-dl
Suggested packages:
  libdvdcss2 python3-pyxdm-dbg python-pyxdm-doc libfribidi-bin | bidiv
  phantomjs
The following NEW packages will be installed:
  libdvdnav4 libdvdread7 libva-wayland2 mpv python3-pyxdm rtmpdump youtube-dl
0 upgraded, 7 newly installed, 0 to remove and 88 not upgraded.
Need to get 2 164 kB of archives.
After this operation, 8 793 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 libdvdread7 amd64
6.1.0+really6.0.2-1 [49,9 kB]
Get:2 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 libdvdnav4 amd64 6
.0.1-1build1 [39,0 kB]
Get:3 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 libva-wayland2 amd

```

Установка mpv

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sudo apt install grim
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  grim
0 upgraded, 1 newly installed, 0 to remove and 88 not upgraded.
Need to get 13,1 kB of archives.
After this operation, 49,2 kB of additional disk space will be used.
Get:1 http://ru.archive.ubuntu.com/ubuntu focal/universe amd64 grim amd64 1.3.0+ds-1 [13,1 kB]
Fetched 13,1 kB in 0s (88,8 kB/s)
Selecting previously unselected package grim.
(Reading database ... 207457 files and directories currently installed.)
Preparing to unpack .../grim_1.3.0+ds-1_amd64.deb ...
Unpacking grim (1.3.0+ds-1) ...
Setting up grim (1.3.0+ds-1) ...
Processing triggers for man-db (2.9.1-1) ...
asvedjmina@asvedjmina-Modern-15-B12M:~/work$

```

Установка grim

Устанавливаю бинарный файл.

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ sh -c "$(wget -qO- chezmoi.io/get)"
info found version 2.47.1 for latest/linux/amd64
info installed ./bin/chezmoi
asvedjmina@asvedjmina-Modern-15-B12M:~/work$

```

Установка бинарного файла

Создаю свой репозиторий для конфигурационных файлов на основе шаблона.

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ gh repo create dotfiles --template="
yamadharmadotfiles-template" --private
✓ Created repository asvedjmina/dotfiles on GitHub
asvedjmina@asvedjmina-Modern-15-B12M:~/work$

```

Создание репозитория

Инициализирую chezmoi с моим репозиторием dotfiles.

```
asvedjmina@asvedjmina-Modern-15-B12M:~/work$ chezmoi init git@github.com:asvedjmina/dotfiles.git
Cloning into '/home/asvedjmina/.local/share/chezmoi'...
remote: Enumerating objects: 100, done.
remote: Counting objects: 100% (100/100), done.
remote: Compressing objects: 100% (87/87), done.
remote: Total 100 (delta 0), reused 99 (delta 0), pack-reused 0
Receiving objects: 100% (100/100), 77.86 KiB | 905.00 KiB/s, done.
asvedjmina@asvedjmina-Modern-15-B12M:~/work$
```

Инициализация chezmoi

Запускаю chezmoi. Просматриваю внесённые им изменения.

```

asvedjmina@asvedjmina-Modern-15-B12M:~/work$ chezmoi diff
diff --git a/.XCompose b/.XCompose
new file mode 100664
index 00000000000000000000000000000000..df8f370233d31851300fcd63eef033aa469f1e76
--- /dev/null
+++ b/.XCompose
@@ -0,0 +1,4 @@
+include "%L"
+
+<Multi_key><minus><p>:"#"
+<Multi_key><apostrophe><apostrophe> : " U0301 # COMBINING ACUTE ACCENT
diff --git a/.bash_logout b/.bash_logout
old mode 100644
new mode 100664
index de4f5f75d7ccd3a5b62bd2ce683ed678a5cb72c2..af7c6fd8fd1d77b1081711bd0e497161446cc7d0
--- a/.bash_logout
+++ b/.bash_logout
@@ -1,7 +1,2 @@
-# ~/.bash_logout: executed by bash(1) when login shell exits.
-
-# when leaving the console clear the screen to increase privacy
+# ~/.bash_logout

-if [ "$SHLV" = 1 ]; then
+    [ -x /usr/bin/clear_console ] && /usr/bin/clear_console -q
-fi
diff --git a/.bash_profile b/.bash_profile
new file mode 100664
index 00000000000000000000000000000000..41823fe34aa12749bc86f9a40b6fc709b82ddc56
--- /dev/null
+++ b/.bash_profile
@@ -0,0 +1,8 @@
+# /etc/skel/.bash_profile
+
+# This file is sourced by bash for login shells. The following line
+# runs your .bashrc and is recommended by the bash info pages.
+[[ -f ~/.bashrc ]] && . ~/.bashrc
+
+# load .profile
+[[ -f ~/.profile ]] && . ~/.profile

```

Зануцк chezmoi

Сохраняю изменения.

Выводы

В ходе лабораторной работы я освоила навыки использования менеджера паролей pass.