

РОССИЙСКИЙ УНИВЕРСИТЕТ ДРУЖБЫ НАРОДОВ

презентация **ПО ЛАБОРАТОРНОЙ РАБОТЕ № 7**

дисциплина: *Операционные системы*

Студент группы НПИбд-01-21

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МОСКВА

2022 г.

Цель работы:

Освоить основные возможности командной оболочки Midnight Commander. А также приобрести навыки практической работы по просмотру каталогов и файлов, манипуляций с ними.

Ход работы:

Задание по МС:

- Изучили информацию о mc, вызвав в командной строке man mc.

```
dabedasa@fedora:~ — man mc
MC(1)                               GNU Midnight Commander                               MC(1)

NAME
mc — Visual shell for Unix-like systems.

SYNOPSIS
mc [-abcCdfhPstuUVx] [-l log] [dir1 [dir2]] [-e [file] ...] [-v file]

DESCRIPTION
GNU Midnight Commander is a directory browser/file manager for Unix-like operating systems.

OPTIONS
-a, --stickchars
    Disable usage of graphic characters for line drawing.

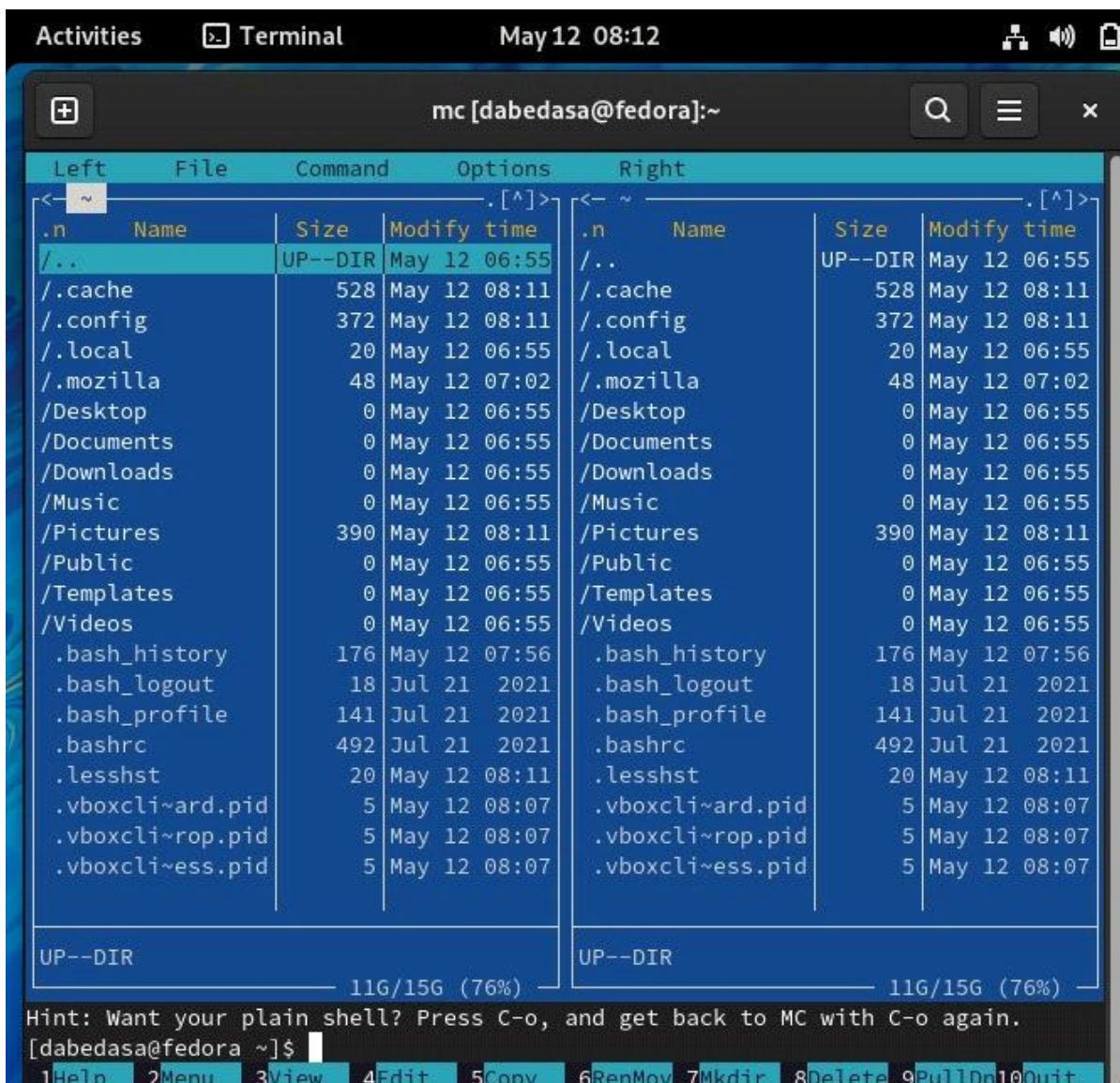
-b, --nocolor
    Force black and white display.

-c, --color
    Force color mode, please check the section Colors for more information.

Manual page mc(1) Line 1 (press h for help or q to quit)
```

```
[dabedasa@fedora ~]$ man mc
[dabedasa@fedora ~]$
```

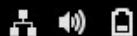
- Запустили, изучили его структуру и меню.
- Выполнили е несколько операций в mc, используя управляющие клавиши (операции с панелями; выделение/отмена выделения файлов, копирование/перемещение файлов, получение информации о размере и правах доступа на файлы и/или каталоги и т.п.).



Activities

Terminal

May 12 08:13



mc [dabedasa@fedora]:~

Left Right

File Options

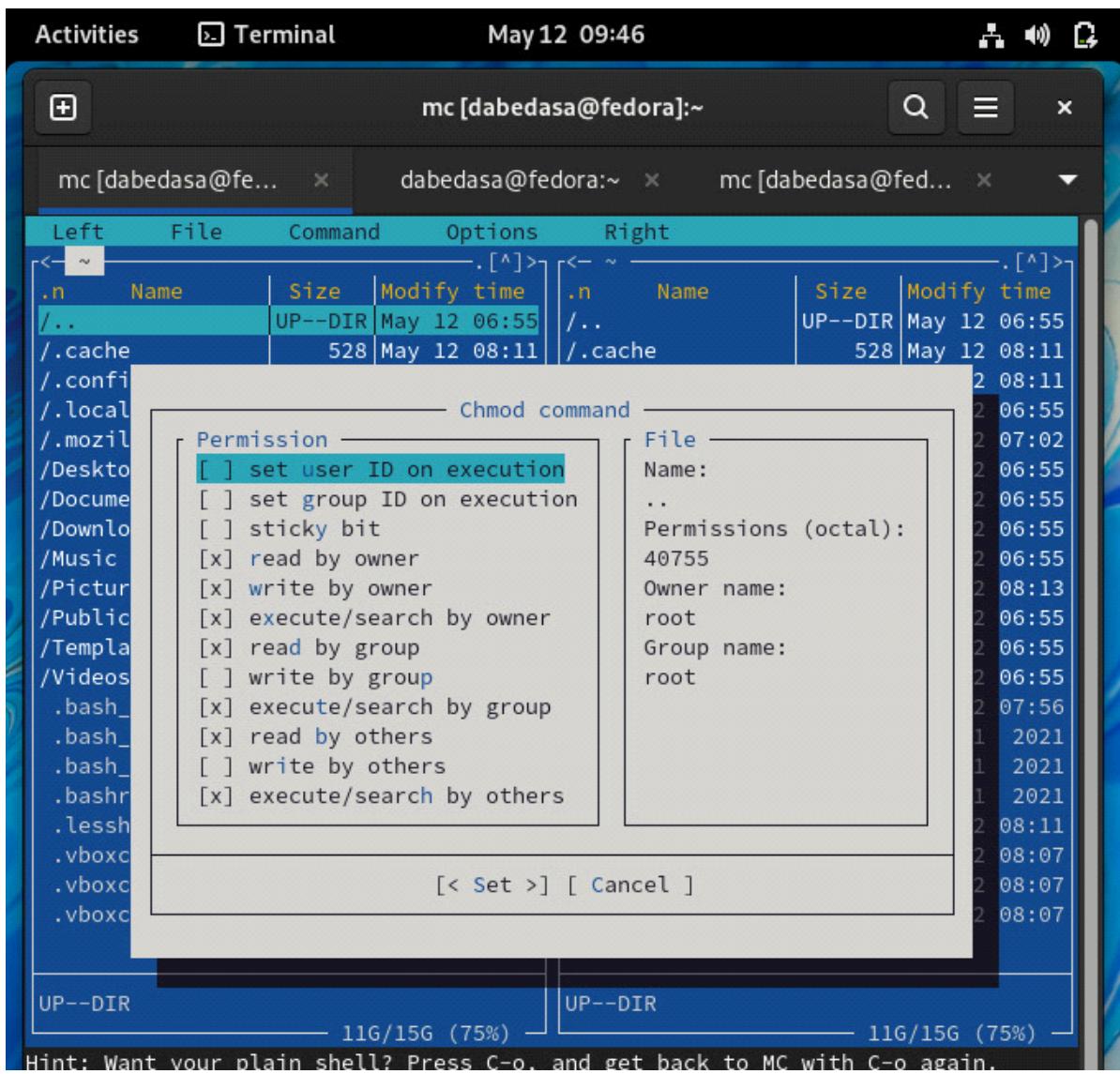
		Name	Size	Modify time
.	e	..	55	May 12 06:55
..		./cache	528	May 12 08:11
/.cache		/.config	372	May 12 08:11
/.config		/.local	20	May 12 06:55
/.local		/.mozilla	48	May 12 07:02
/.mozilla		/Desktop	0	May 12 06:55
/Desktop		/Documents	0	May 12 06:55
/Documents		/Downloads	0	May 12 06:55
/Downloads		/Music	0	May 12 06:55
/Music		/Pictures	390	May 12 08:11
/Pictures		/Public	0	May 12 06:55
/Public		/Templates	0	May 12 06:55
/Templates		/Videos	0	May 12 06:55
/Videos		.bash_history	176	May 12 07:56
.bash_history		.bash_logout	18	Jul 21 2021
.bash_logout		.bash_profile	141	Jul 21 2021
.bash_profile		.bashrc	492	Jul 21 2021
.bashrc		.lessht	20	May 12 08:11
.lessht		.vboxcli~ard.pid	5	May 12 08:07
.vboxcli~ard.pid		.vboxcli~rop.pid	5	May 12 08:07
.vboxcli~rop.pid		.vboxcli~ess.pid	5	May 12 08:07

UP--DIR UP--DIR

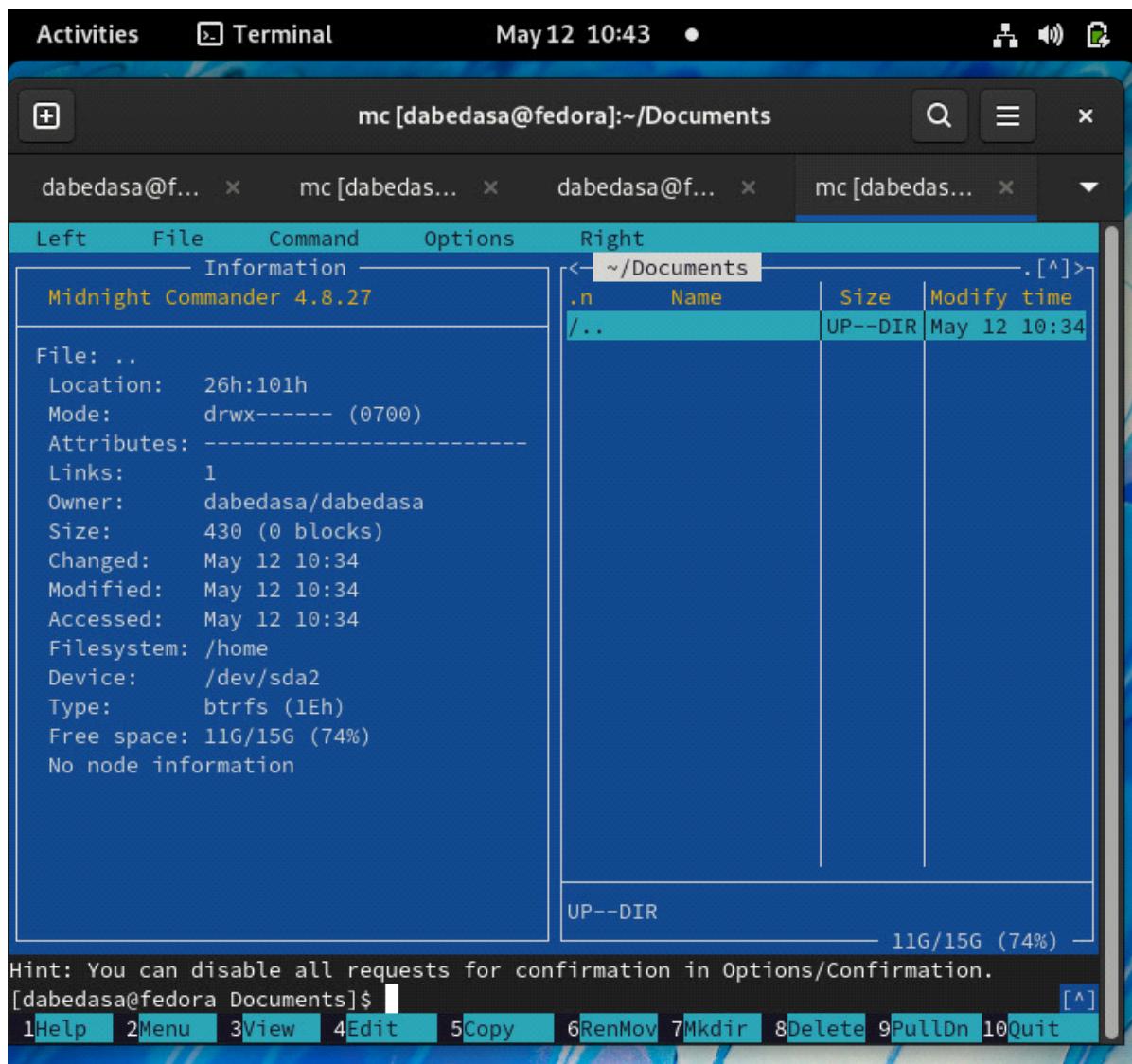
Hint: Want your plain shell? Press C-o, and get back to MC with C-o again.

[dabedasa@fedora ~]\$

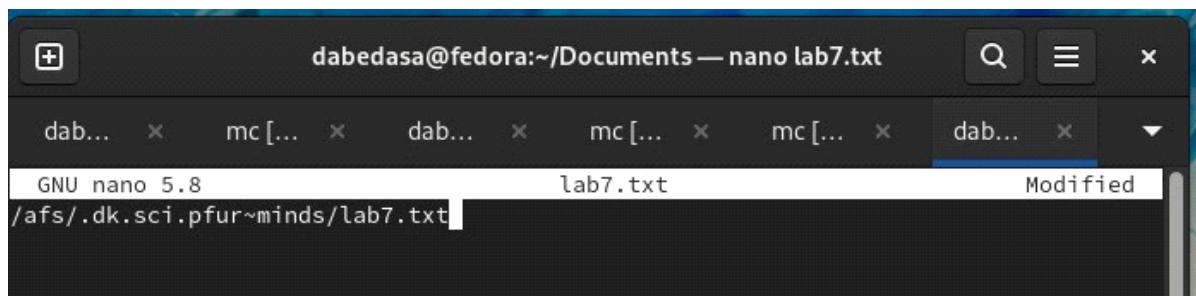
1Help 2Menu 3View 4Edit 5Copy 6RenMov 7Mkdir 8Delete 9PullDn 10Quit



- Выполните основные команды меню левой и правой панелей. Оцените степень подробности вывода информации о файлах.



- Используя возможности подменю «Файл» выполнили:
 - просмотр содержимого текстового файла;



- редактирование содержимого текстового файла (без сохранения результатов редактирования);

GNU nano 5.8 lab7.txt Modified
Hello, World!

– создание каталога;

Activities Terminal May 12 11:57

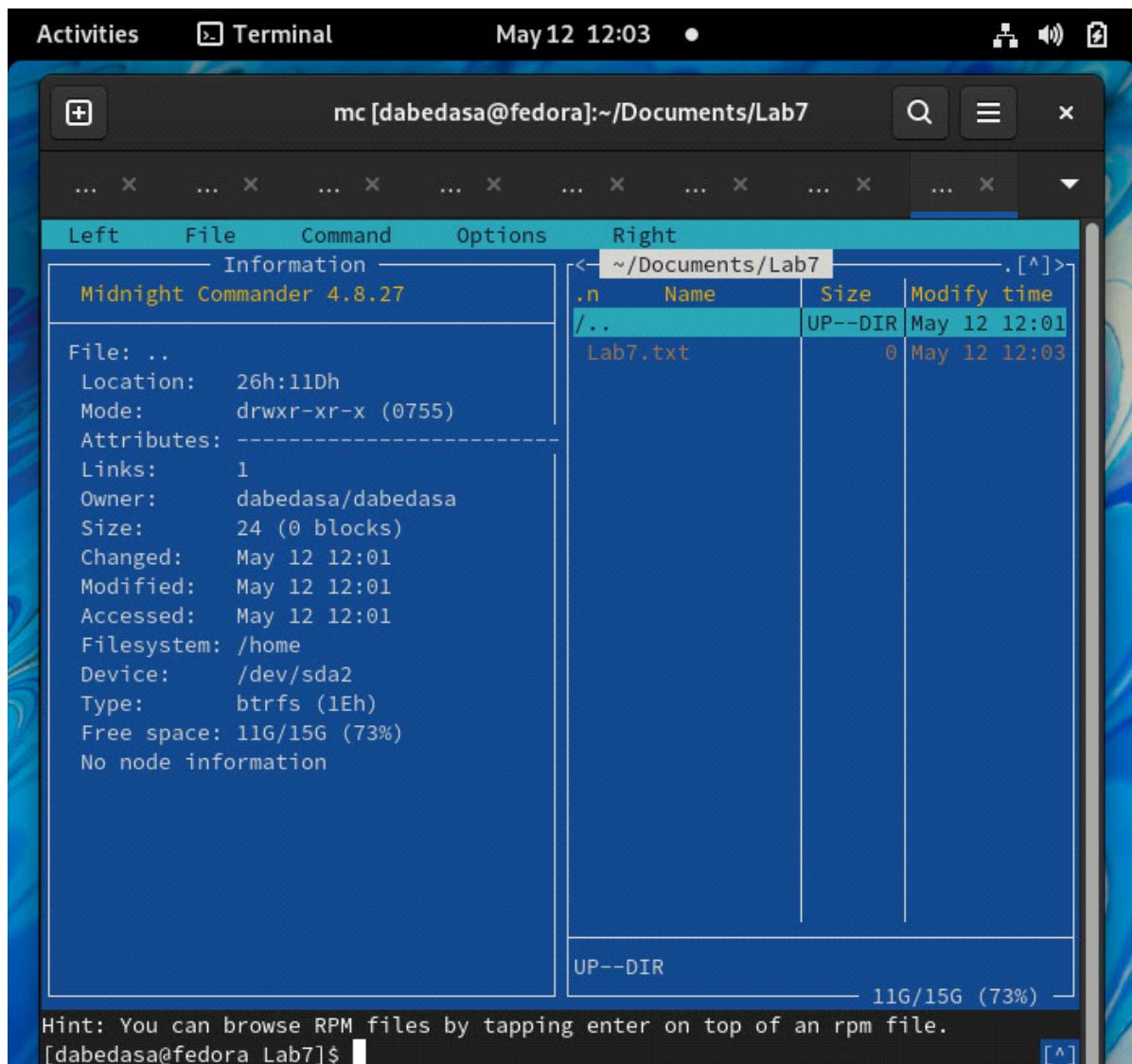
mc [dabedasa@fedora]:~/Documents

.n	Name	Size	Modify time
/..	lab7.txt	UP--DIR 32	May 12 11:51

File: ...
Location: 26h:101h
Mode: drwx----- (0700)
Attributes: -----
Links: 1
Owner: dabedasa/dabedasa
Size: 454 (0 blocks)
Changed: May 12 11:48
Modified: May 12 11:48
Accessed: May 12 11:49
Filesystem: /home
Device: /dev/sda2
Type: btrfs (1Eh)
Free space: 11G/15G (73%)
No node information

Hint: Need to quote a character? Use Control-q and the character.
[dabedasa@fedora Documents]\$

– копирование файлов в созданный каталог.

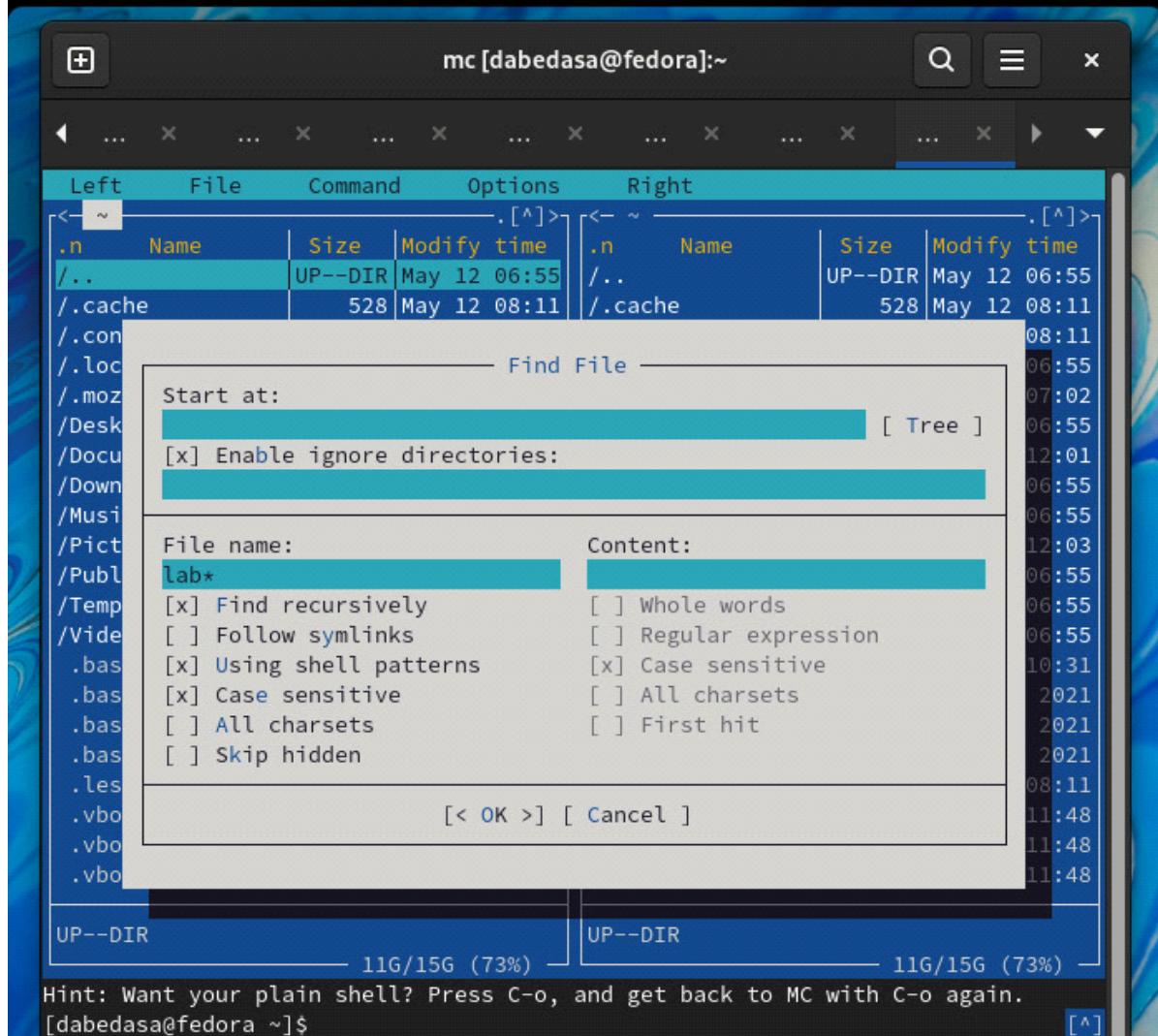


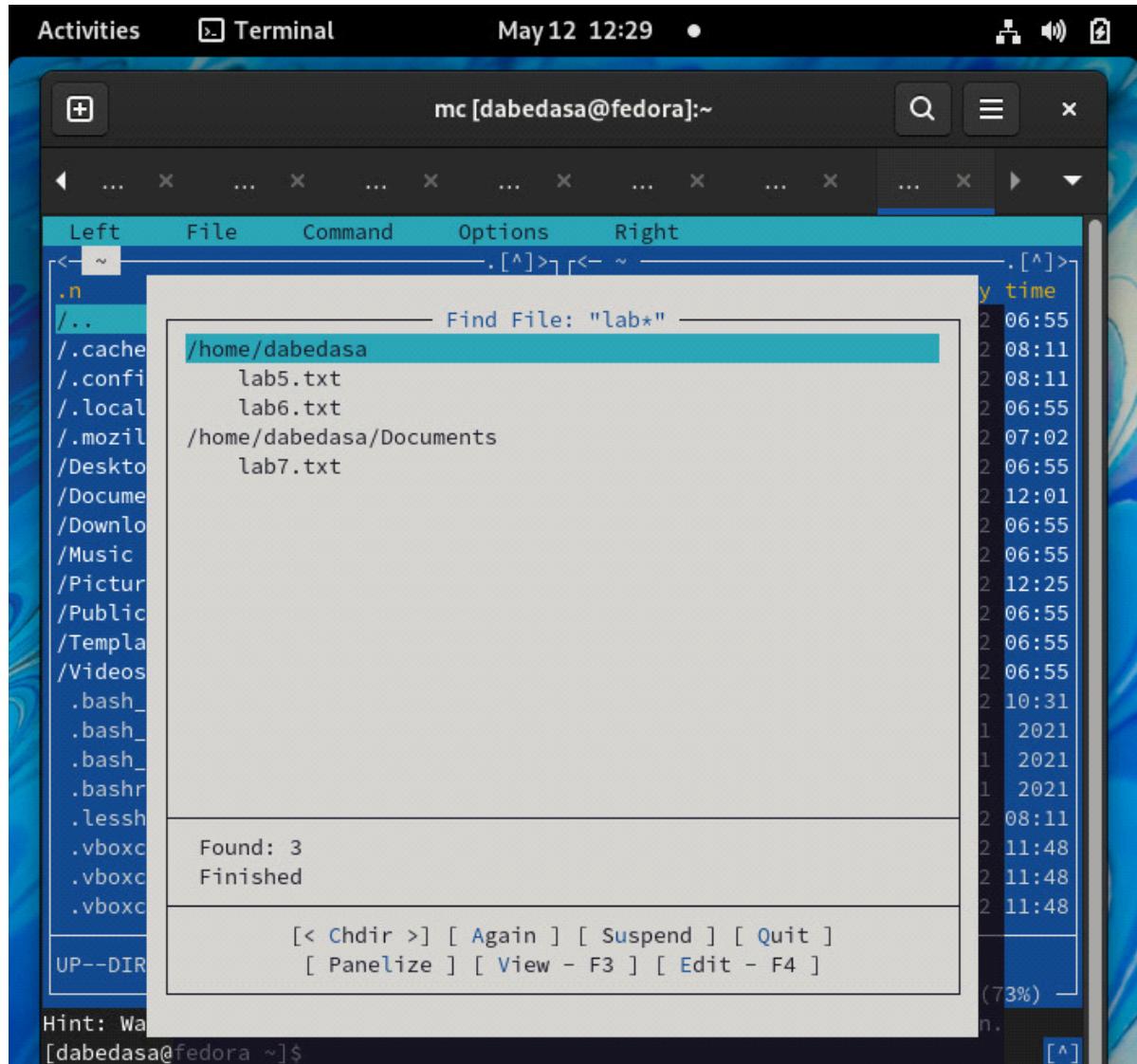
- С помощью соответствующих средств подменю «Команда» осуществили:
 - поиск в файловой системе файла с заданными условиями (имя файла начинается с lab);

Activities

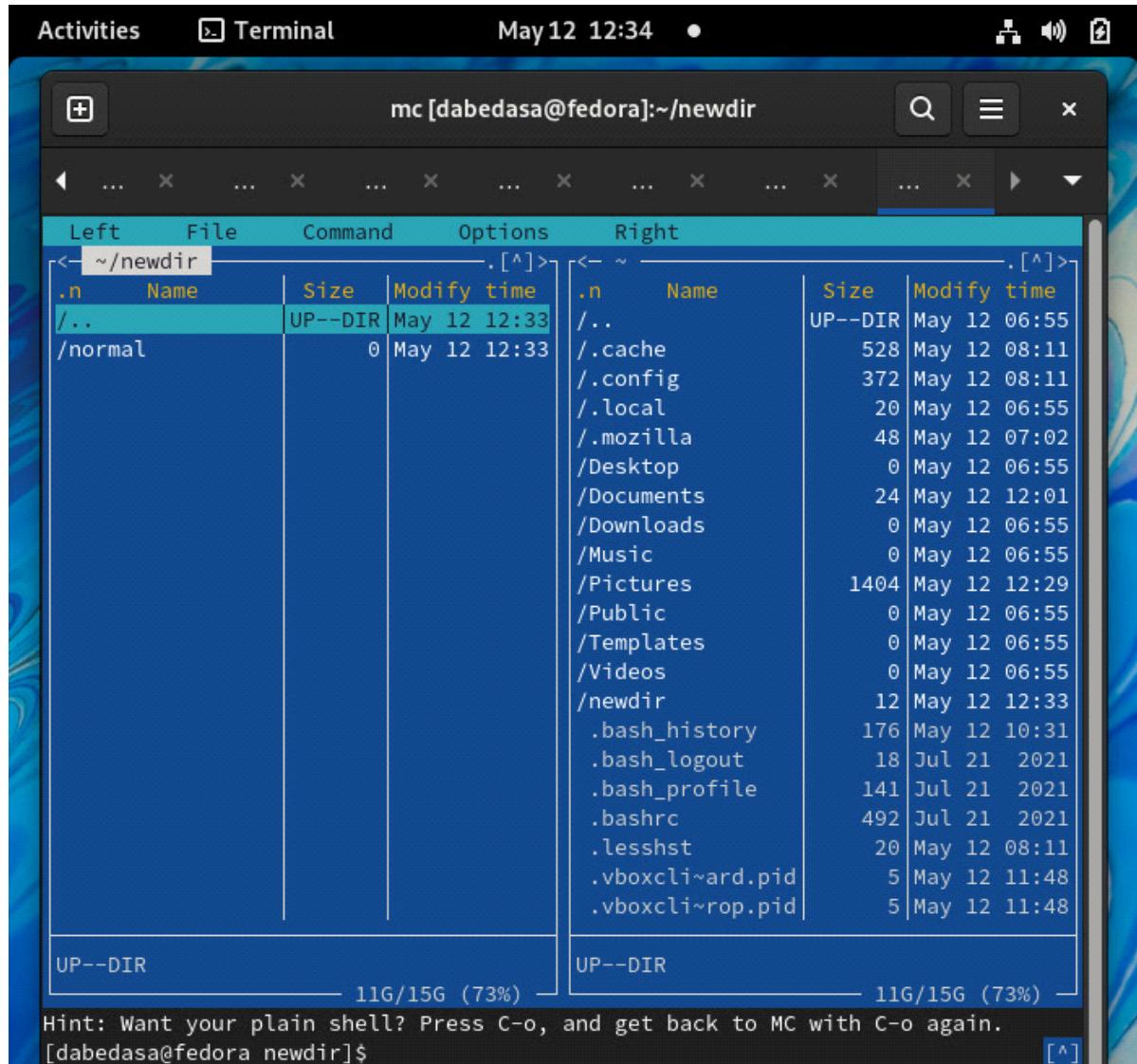
Terminal

May 12 12:25

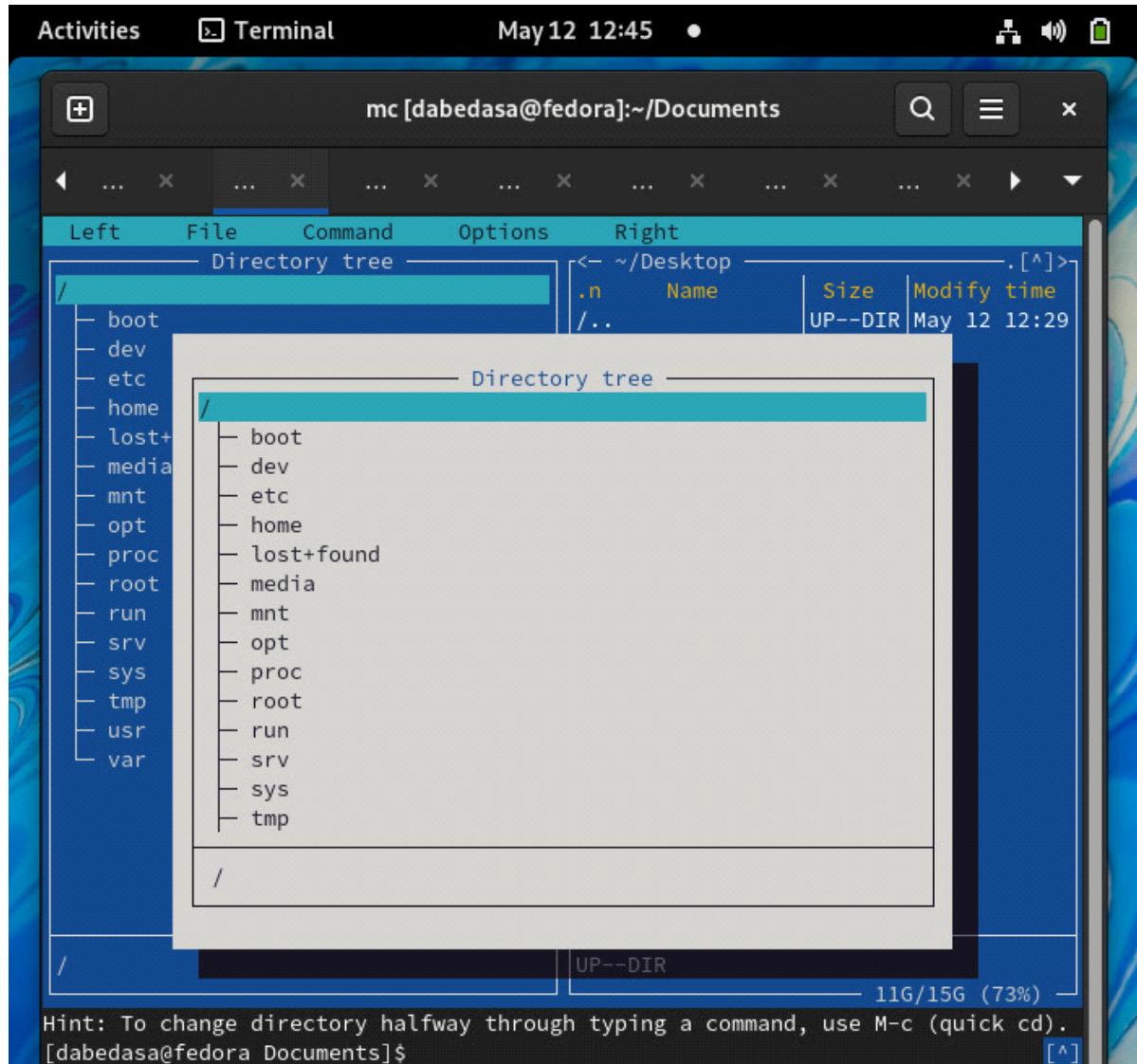




– выбор и повторение одной из предыдущих команд;



– переход в домашний каталог;

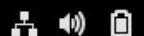


– анализ файла меню и файла расширений.

Activities

Terminal

May 12 12:48



mc [dabedasa@fedora]:~

Left File Command Options Right

.n	Name	Size	Modify time	.n	Name	Size	Modify time
.	..	UP--DIR	May 12 06:55	.	..	UP--DIR	May 12 06:55
./.cache		528	May 12 08:11	./.cache		528	May 12 08:11
./.config		372	May 12 08:11	./.config		372	May 12 08:11
./.local		20	May 12 06:55	./.local		20	May 12 06:55
./.mozilla		48	May 12 07:02	./.mozilla		48	May 12 07:02
./Desktop						0	May 12 06:55
./Documents						24	May 12 12:01
./Downloads						0	May 12 06:55
./Music						0	May 12 06:55
./Pictures						1560	May 12 12:45
./Public						0	May 12 06:55
./Templates						0	May 12 06:55
./Videos						0	May 12 06:55
./dabedasa		80	May 12 12:39	./dabedasa		80	May 12 12:39
./newdir		12	May 12 12:33	./newdir		12	May 12 12:33
./.bash_history		176	May 12 10:31	./.bash_history		176	May 12 10:31
./.bash_logout		18	Jul 21 2021	./.bash_logout		18	Jul 21 2021
./.bash_profile		141	Jul 21 2021	./.bash_profile		141	Jul 21 2021
./.bashrc		492	Jul 21 2021	./.bashrc		492	Jul 21 2021
./.lessht		20	May 12 08:11	./.lessht		20	May 12 08:11
./vboxcli~ard.pid		5	May 12 11:48	./vboxcli~ard.pid		5	May 12 11:48
UP--DIR				UP--DIR			

Hint: Want your plain shell? Press C-o, and get back to MC with C-o again.
[dabedasa@fedora ~]\$

[^]

Activities Terminal May 12 13:20

dabedasa@fedora:~ — mcedit

```
[--M--] 0 L:[ 1+19 20/ 20] *(371 / 371b) <EOF> [*][X]
shell patterns=0
+ ! t t
@<---->Do something on the current file.
<----->CMD=%{Enter commad}
<----->$CMD %f
<----->
+ t t
@<---->Do something on the tagged files
<----->set %t; CMD=%{Enter commad}
<----->while [ -n "&1" ]; do
<-----> $CMD "%1"
<-----> shift
<----->done
<----->
0<---->Edit a bug report and send it to root
<----->I='mktemp "${MC_TMDIR:-/tmp}/mail.XXXXXX"' || exit 1
<----->${EDITOR:-vi} "$I"
<----->test -r $I && mail root < $I
<----->rm -f "$I"
```

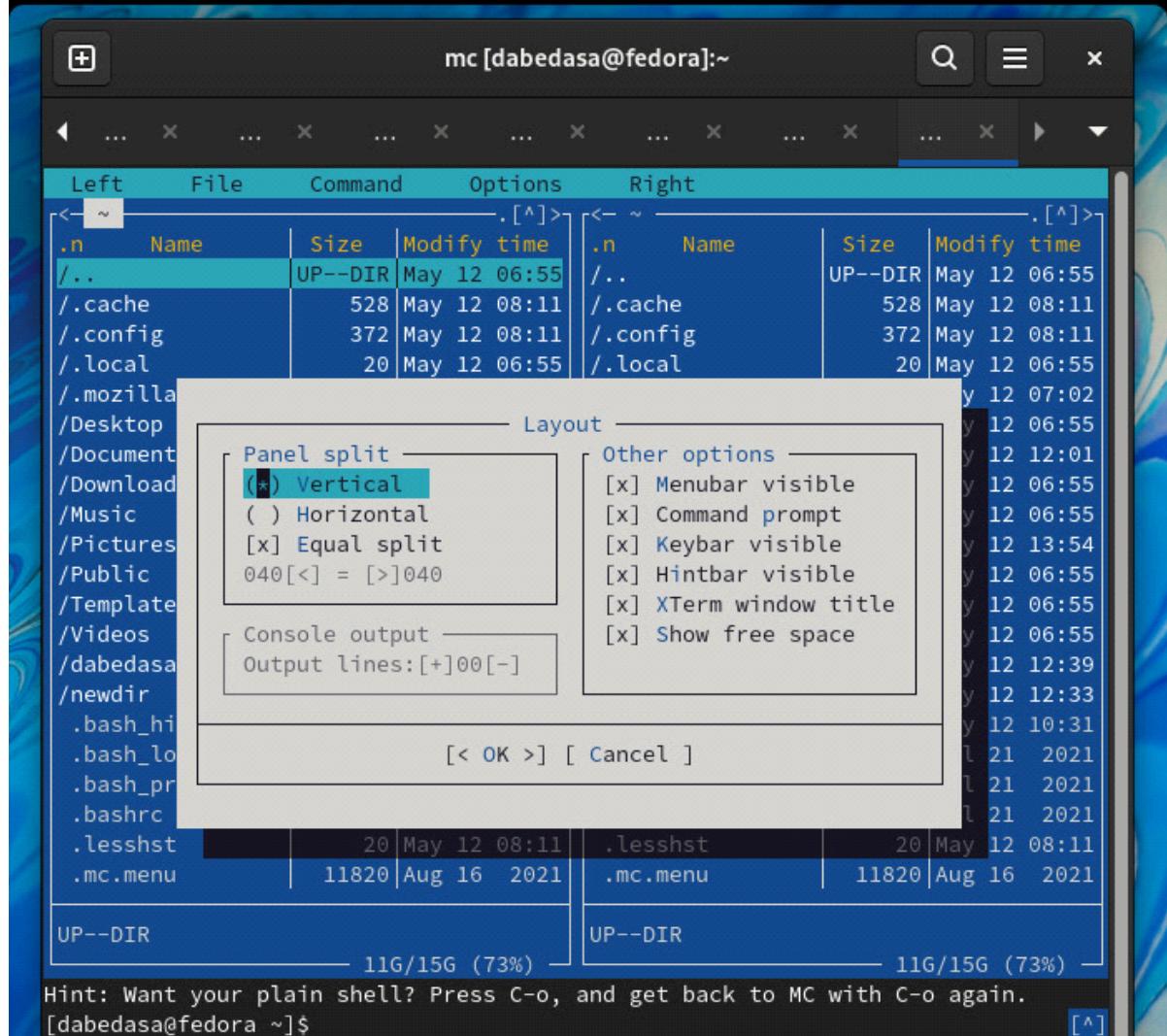
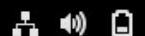
```
mc [dabedasa@fedora]:~  
mc.ext      [----]  0 L:[ 1+ 0   1/848] *(0   /22252b) 0035 0x023 [*][X]  
# Midnight Commander 3.0 extension file  
# Warning: Structure of this file has changed completely with version 3.0  
#  
# All lines starting with # or empty lines are thrown away.  
# Lines starting in the first column should have following format:  
#  
# keyword/descNL, i.e. everything after keyword/ until new line is desc  
#  
# keyword can be:  
#  
#   shell (desc is, when starting with a dot, any extension (no wildcars),  
#         i.e. matches all the files *desc . Example: .tar matches *.tar;  
#         if it doesn't start with a dot, it matches only a file of that name)  
#  
#   shell/i (desc is, when starting with a dot, any extension (no wildcars),  
#             The same as shell but with case insensitive.  
#  
#   regex (desc is an extended regular expression)  
#         Please note that we are using the GNU regex library and thus  
#         \| matches the literal | and | has special meaning (or) and  
#         () have special meaning and \(\ \) stand for literal ( ).  
#  
#   regex/i (desc is an extended regular expression)  
#         The same as regex but with case insensitive.  
#  
#   type  (file matches this if `file %f` matches regular expression desc  
#          (the filename: part from `file %f` is removed))
```

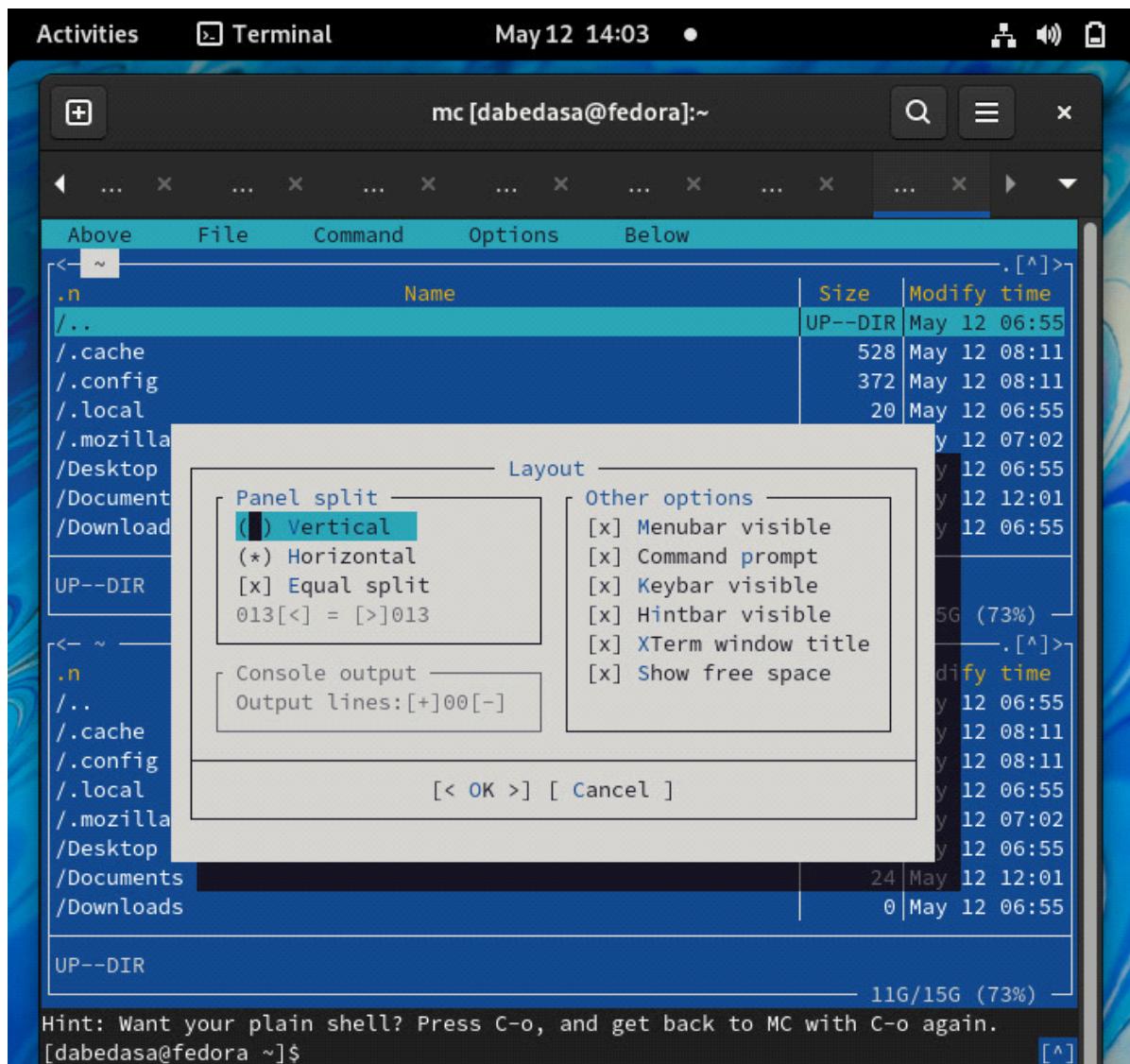
- Вызывали подменю «Настройки» и освоили операции, определяющие структуру экрана mc (Full screen, Double Width, Show Hidden Files и т.д.)

Activities

Terminal

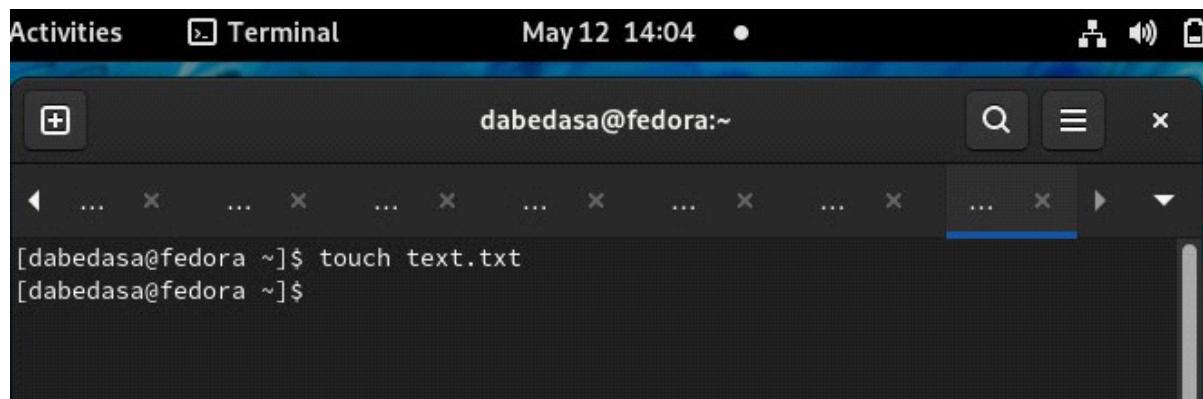
May 12 14:00





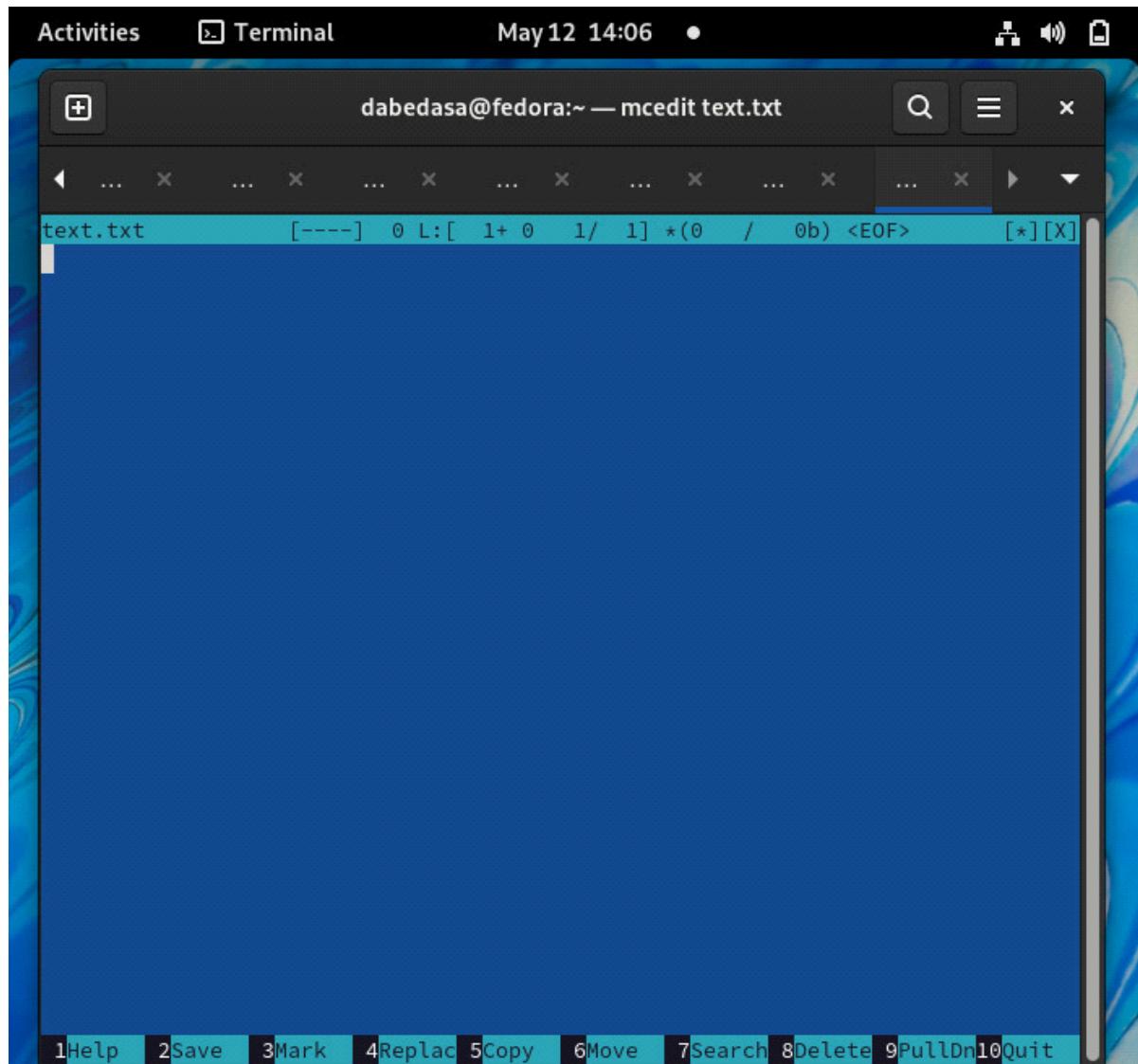
Задание по встроенному редактору MC:

- Создали текстовой файл text.txt.

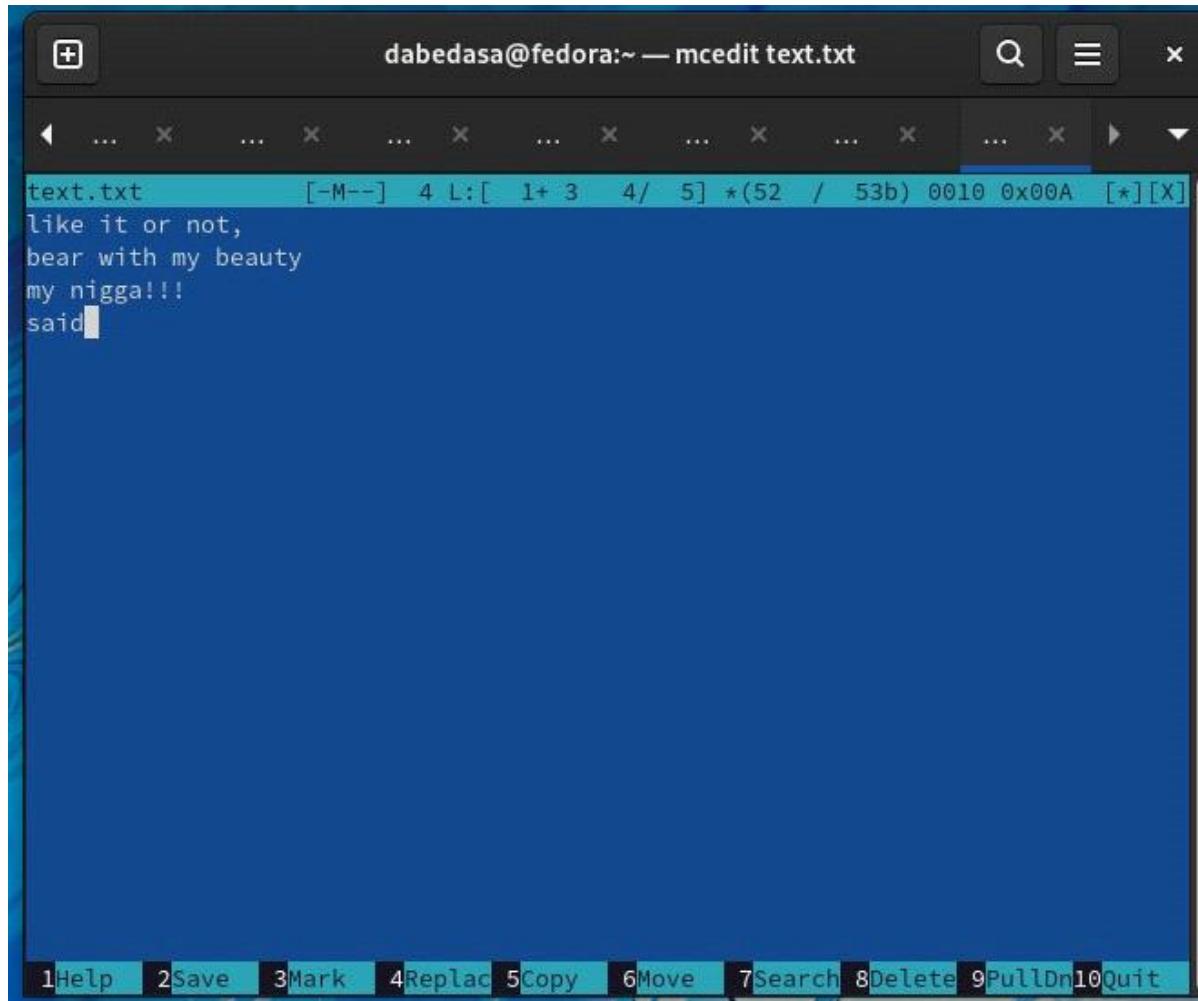


A screenshot of a terminal window titled "Terminal". The window shows the command line interface of a Linux system. The title bar says "dabedasa@fedora:~". The terminal window contains the following text:
[dabedasa@fedora ~]\$ touch text.txt
[dabedasa@fedora ~]\$

- Открыли этот файл с помощью встроенного в mc редактора.



- Вставили в открытый файл небольшой фрагмент текста.

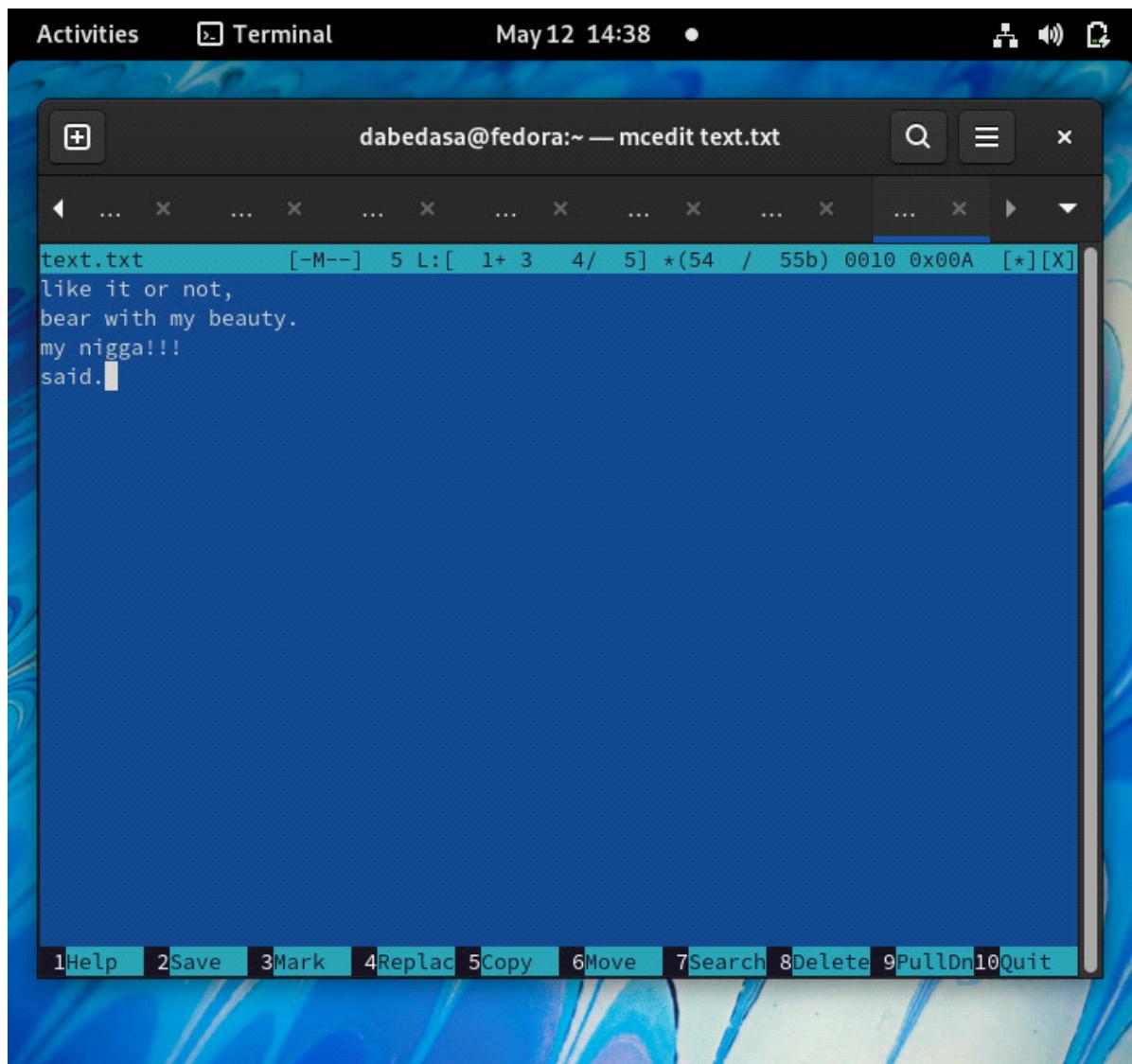


The screenshot shows a terminal window titled "dabedasa@fedora:~ — mcedit text.txt". The file "text.txt" contains the following text:

```
text.txt      [-M--] 4 L:[ 1+ 3 4/ 5] *(52 / 53b) 0010 0x00A [*][X]
like it or not,
bear with my beauty
my nigga!!!
said
```

The status bar at the bottom of the window lists various keyboard shortcuts: 1Help, 2Save, 3Mark, 4Replace, 5Copy, 6Move, 7Search, 8Delete, 9PullDn, 10Quit.

- Проделали с текстом следующие манипуляции, используя горячие клавиши:
 - Удалили строку текста.

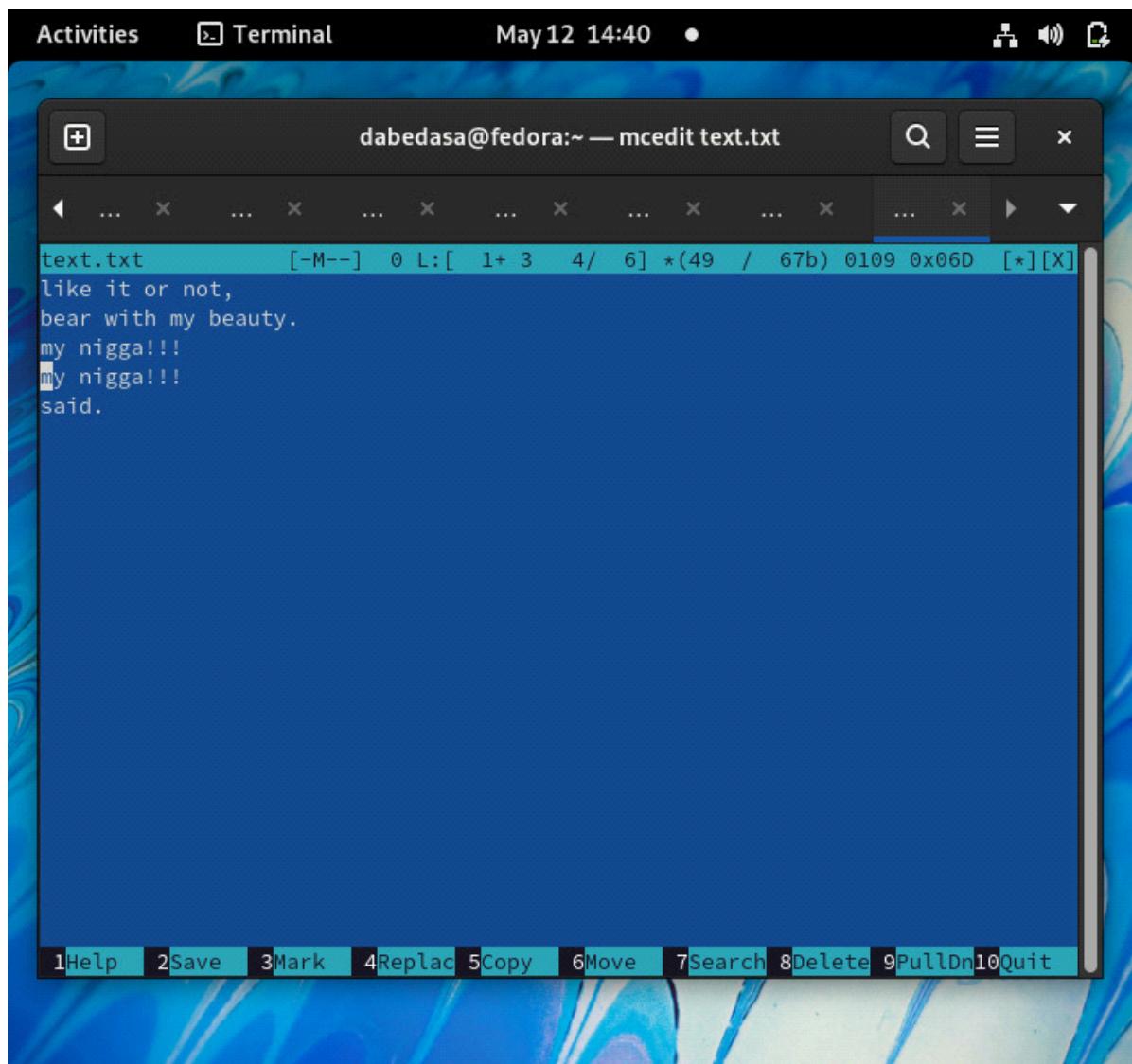


- Выделили фрагмент текста и скопировали его на новую строку.

The screenshot shows a terminal window titled "dabedasa@fedora:~ — mcedit text.txt". The window contains a text editor interface with a dark blue background. At the top, there are icons for file operations like new, open, save, and exit. The status bar at the bottom displays file information: "text.txt [BM--] 0 L:[1+ 2 3/ 5] *(37 / 55b) 0109 0x06D [*][X]". The main area of the editor shows the following text:

```
like it or not,  
bear with my beauty.  
my nigga!!!  
said.
```

At the bottom of the editor window, there is a menu bar with the following options: 1Help, 2Save, 3Mark, 4Replace, 5Copy, 6Move, 7Search, 8Delete, 9PullDn, 10Quit.

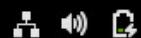


- Выделили фрагмент текста и перенесли его на новую строку.

Activities

Terminal

May 12 14:40



dabedasa@fedora:~ — mcedit text.txt



```
text.txt      [BM--]  0 L:[ 1+ 3  4/  6] *(49 /  67b) 0109 0x06D [*][X]
like it or not,
bear with my beauty.
my nigga!!!
my nigga!!!
said.
```

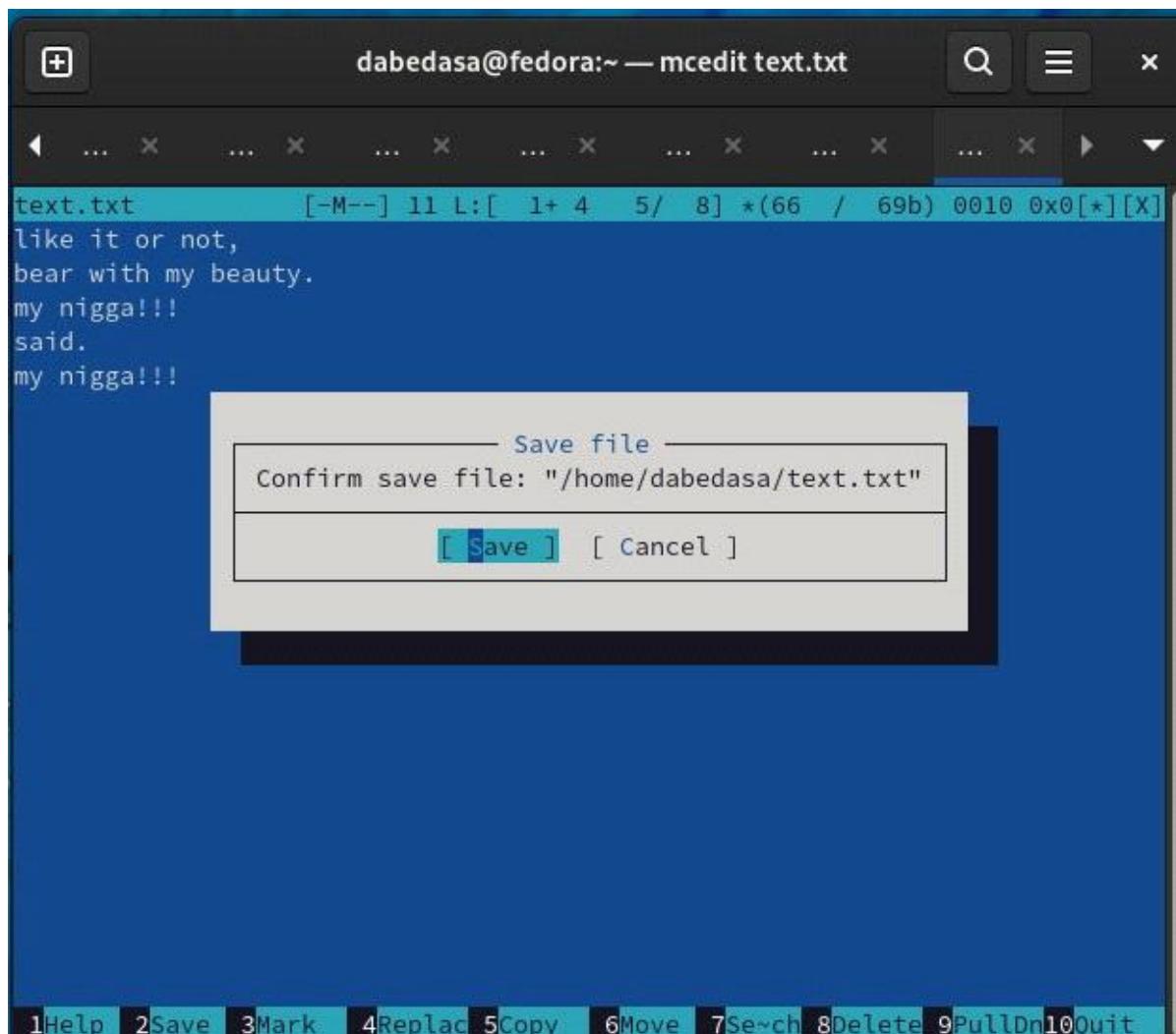
1Help 2Save 3Mark 4Replace 5Copy 6Move 7Search 8Delete 9PullDown 10Quit

A screenshot of a terminal window titled "dabedasa@fedora:~ — mcedit text.txt". The window displays the following text:

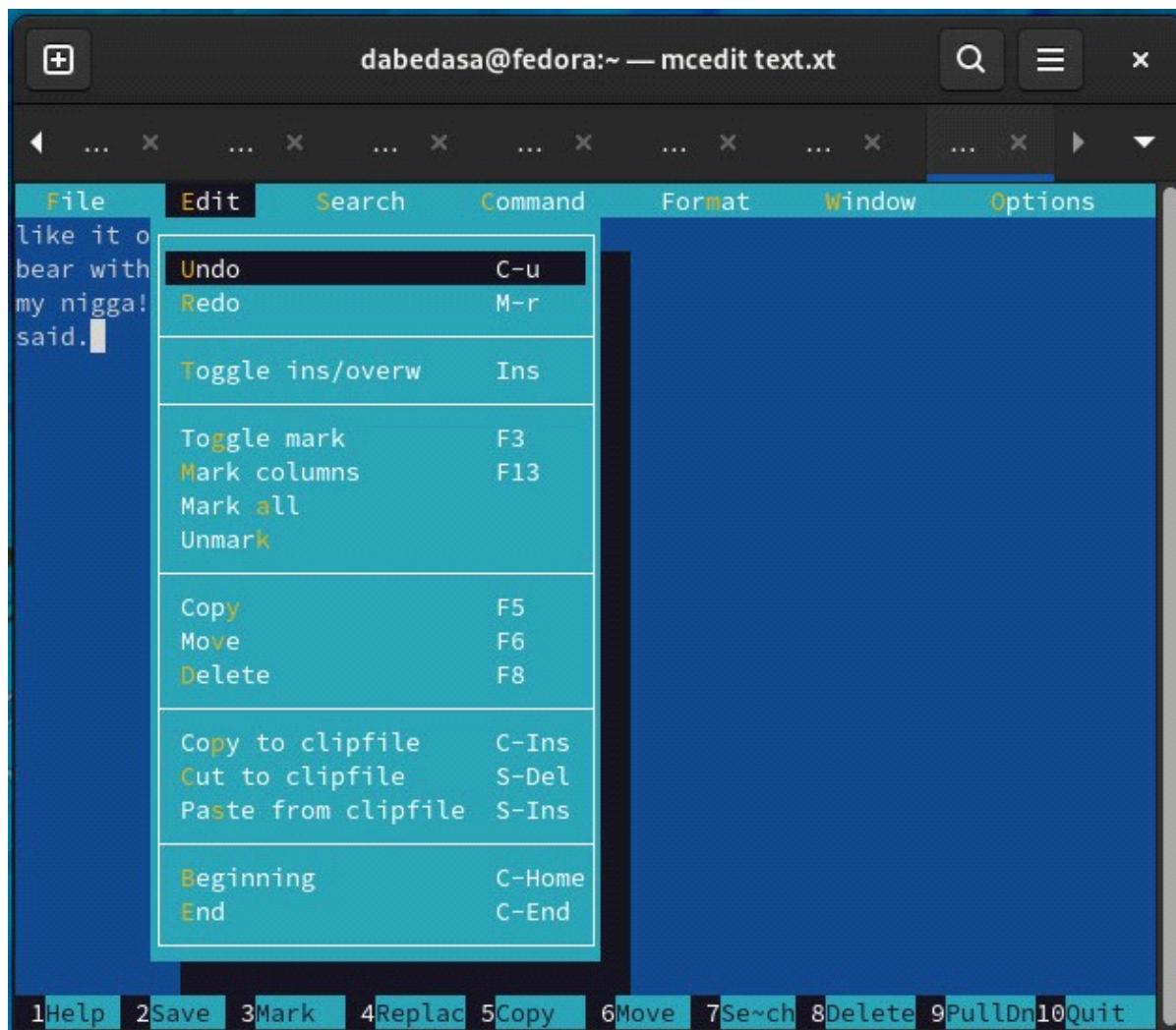
```
text.txt      [-M--] 11 L:[ 1+ 4  5/  8] *(66  /  69b) 0010 0x0[*][X]
like it or not,
bear with my beauty.
my nigga!!!
said.
my nigga!!!■
```

The bottom of the window shows a menu bar with the following options: 1Help, 2Save, 3Mark, 4Replace, 5Copy, 6Move, 7Se~ch, 8Delete, 9PullDn, 10Quit.

- Сохранили файл.



- Отменили последнее действие.



A screenshot of the mcedit text editor window. The title bar reads "dabedasa@fedora:~ — mcedit text.txt". The status bar at the bottom shows file information: "text.txt [-M--] 5 L:[1+ 3 4/ 4] *(54 / 54b) <EOF> [*][X]". The main text area contains the following poem:

```
like it or not,  
bear with my beauty.  
my nigga!!!  
said.
```

The bottom menu bar has items: 1Help, 2Save, 3Mark, 4Replace, 5Copy, 6Move, 7Search, 8Delete, 9PullDn, 10Quit. The "5Copy" item is highlighted in blue.

- Перешли в конец файла (нажав комбинацию клавиш) и написали текст.

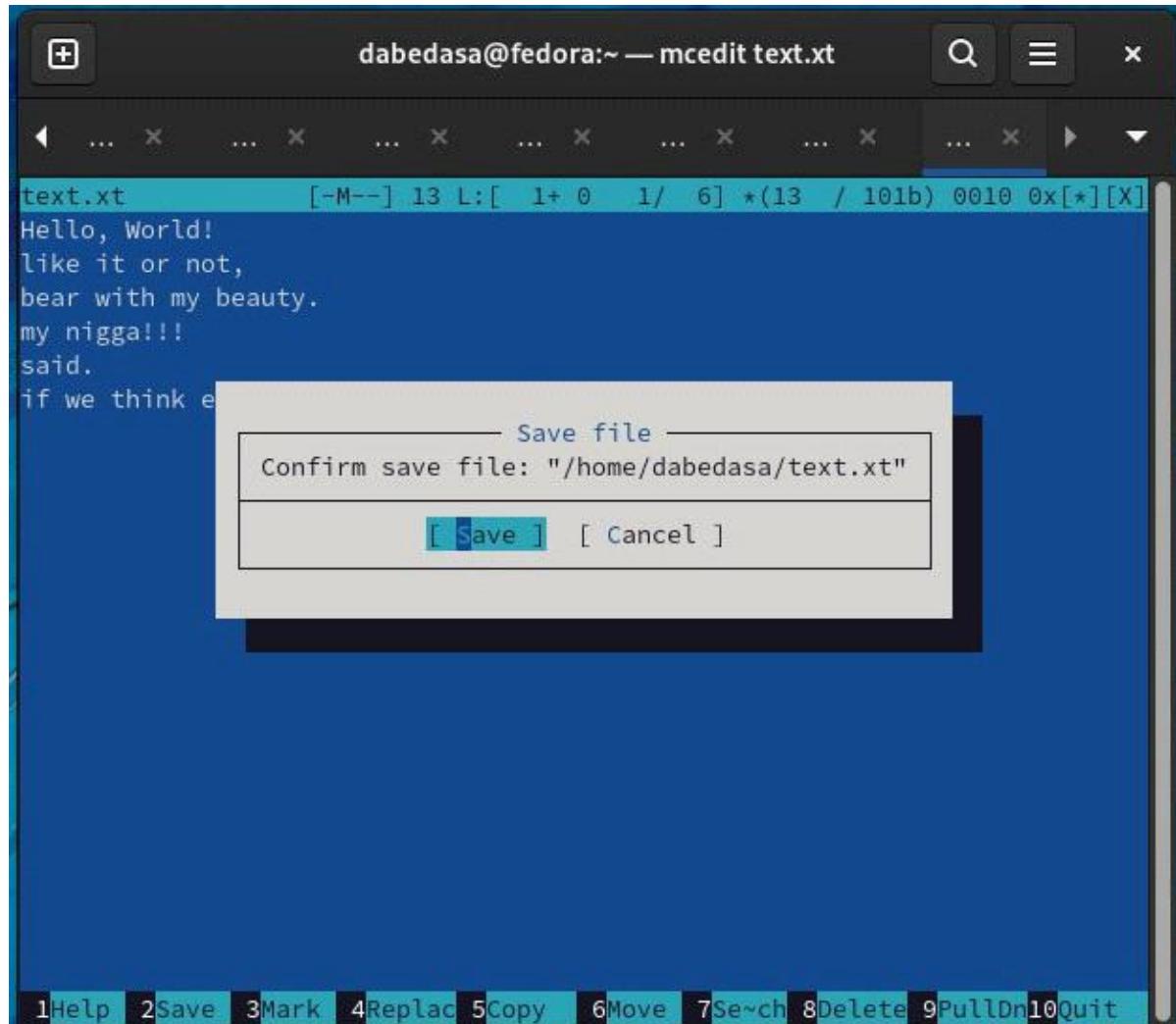
A screenshot of the mcedit text editor window. The title bar shows "dabedasa@fedora:~ — mcedit text.txt". The menu bar has items like File, Edit, View, Insert, Search, and Help. The main area displays the file "text.txt" with the following content:

```
text.txt      [-M--] 32 L:[ 1+ 4 5/ 5] *(87 / 87b) <EOF> [★][X]
like it or not,
bear with my beauty.
my nigga!!!
said.
if we think everthing is simple.
```

The status bar at the bottom shows the file name, line count (32), and other file information. The bottom menu bar includes options: 1Help, 2Save, 3Mark, 4Replace, 5Copy, 6Move, 7Search, 8Delete, 9PullDn, 10Quit.

4.7. Перешли в начало файла (нажав комбинацию клавиш) и написали текст.

4.8. Сохранили и закрыли файл.



- Открыли файл с исходным текстом на языке программирования C++.

The screenshot shows a terminal window titled "dabedasa@fedora:~ — mcedit prog.cpp". The window displays a C++ code file named "prog.cpp". The code defines a class "complex" with private members "re" and "im", and public methods for construction, assignment, and arithmetic operators. The terminal interface includes a menu bar at the bottom with options 1 through 10.

```
prog.cpp      [-M--] 20 L:[ 1+11 12/ 31] *(206 / 476b) 0010 0x00A [.*][X]
#include <stdio.h>
#include <iostream>
using namespace std;
class complex
{
    double re;
    double im;
public:
<----->complex (double r, double i);
<----->complex (double r);
<----->complex (complex &x);
<----->~complex ();
<----->void set (double re, double im);
<----->void print();
<----->complex operator+(complex r);
<----->complex operator=(complex &r);
<----->
};

complex::complex(double r, double i)
{
    re=r;
    im=i;
}
complex::complex(double r)
{
    re=r;
    im=0

```

1Help 2Save 3Mark 4Replac 5Copy 6Move 7Search 8Delete 9PullDn 10Quit

- Используя меню редактора, выключили подсветку синтаксиса, так как изначально она была включена.

Activities Terminal May 12 15:34 •

dabedasa@fedora:~

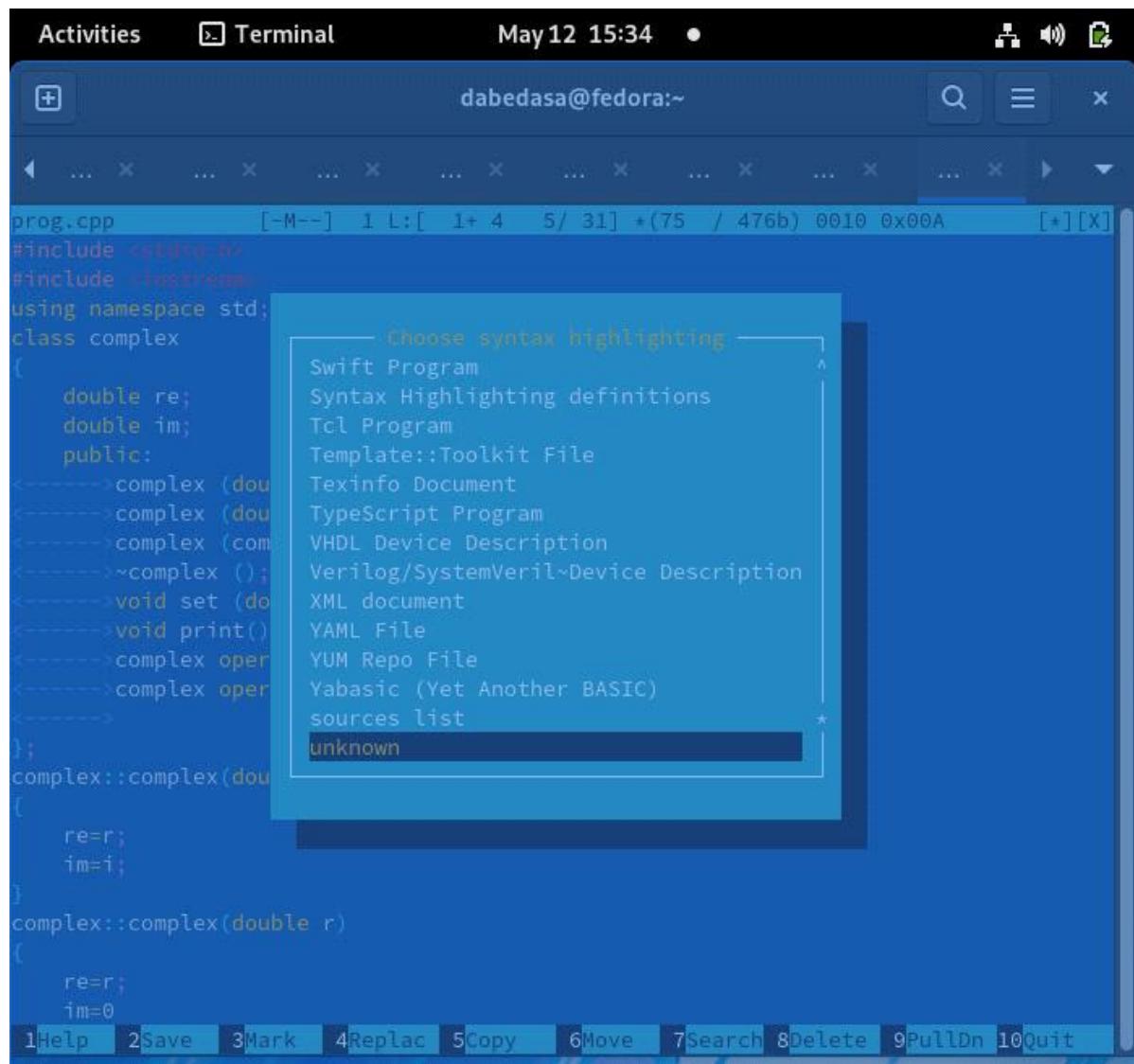
```
prog.cpp [-M--] 1 L:[ 1+ 4 5/ 31] *(75 / 476b) 0010 0x00A [+][X]
```

#include <iostream.h>
#include <iomanip.h>
using namespace std;
class complex
{
 double re;
 double im;
public:
 complex (double r=0, double i=0);
 complex (const complex& c);
 ~complex ();
 void set (double r=0, double i=0);
 void print();
 complex operator+ (const complex& c);
 complex operator* (const complex& c);
};
complex::complex(double r)
{
 re=r;
 im=0;

Choose syntax highlighting

- Swift Program
- Syntax Highlighting definitions
- Tcl Program
- Template::Toolkit File
- Texinfo Document
- TypeScript Program
- VHDL Device Description
- Verilog/SystemVerilog Device Description
- XML document
- YAML File
- YUM Repo File
- Yabasic (Yet Another BASIC)
- sources.list
- unknown

1Help 2Save 3Mark 4Replace 5Copy 6Move 7Search 8Delete 9PullDown 10Quit



The screenshot shows a terminal window titled "Terminal" with the command "dabedasa@fedora:~". The window displays a C++ source code file named "prog.cpp". The code defines a class "complex" with private members "re" and "im", and public methods for construction, setting values, printing, and arithmetic operations. The terminal also shows a menu bar at the bottom with options 1 through 10.

```
prog.cpp [-M--] 1 L:[ 1+ 4 5/ 31 ] *(75 / 476b) 0010 0x00A [*][X]
#include <stdio.h>
#include <iostream>
using namespace std;
class complex
{
    double re;
    double im;
public:
    complex (double r, double i);
    complex (double r);
    complex (complex &x);
    ~complex ();
    void set (double re, double im);
    void print();
    complex operator+(complex r);
    complex operator=(complex &r);
};

complex::complex(double r, double i)
{
    re=r;
    im=i;
}
complex::complex(double r)
{
    re=r;
    im=0;
```

Вывод:

В ходе работы мы освоили основные возможности командной оболочки Midnight Commander и приобрели навыки практической работы по просмотру каталогов и файлов; манипуляций с ними.