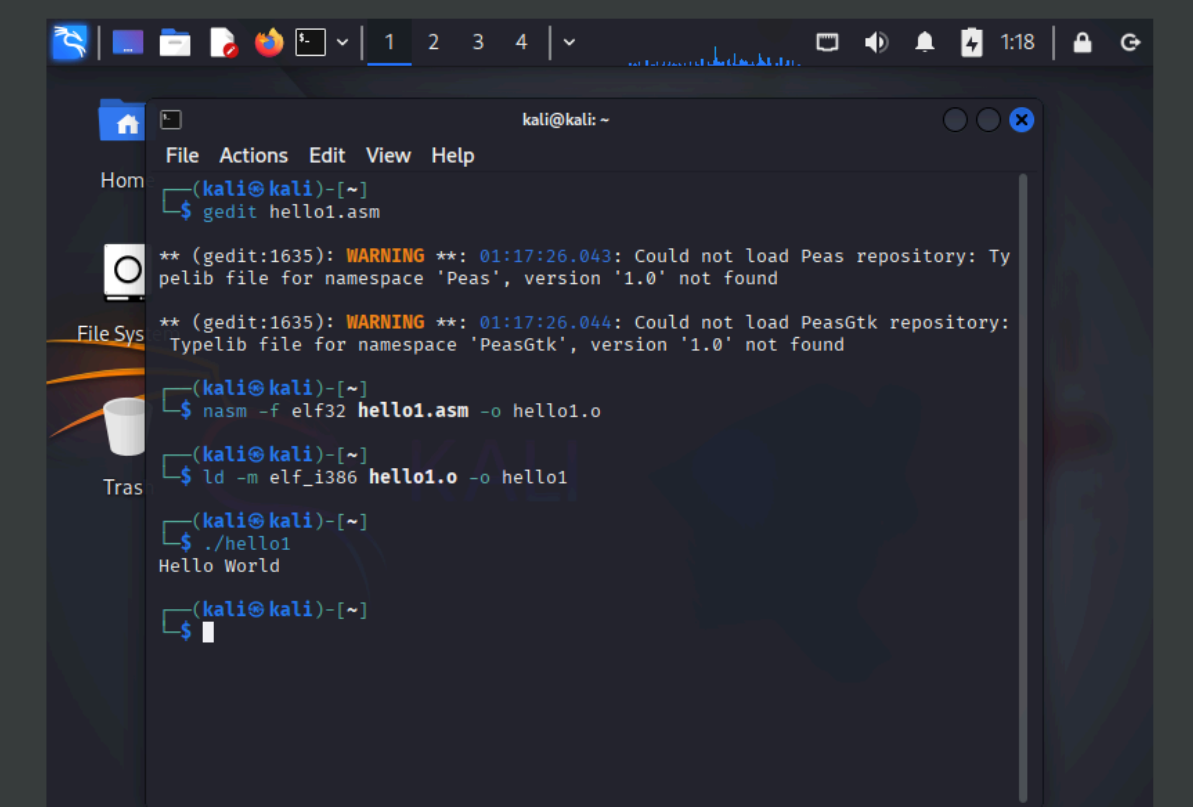


```
section .data
msg db 'Hello World',0xa
len equ $-msg
```

```
section .text
global _start
```

```
_start:
    mov eax,4
    mov ebx,1
    mov ecx,msg
    mov edx,len
    int 0x80
    mov eax,1
    xor ebx,ebx
    int 0x80
```

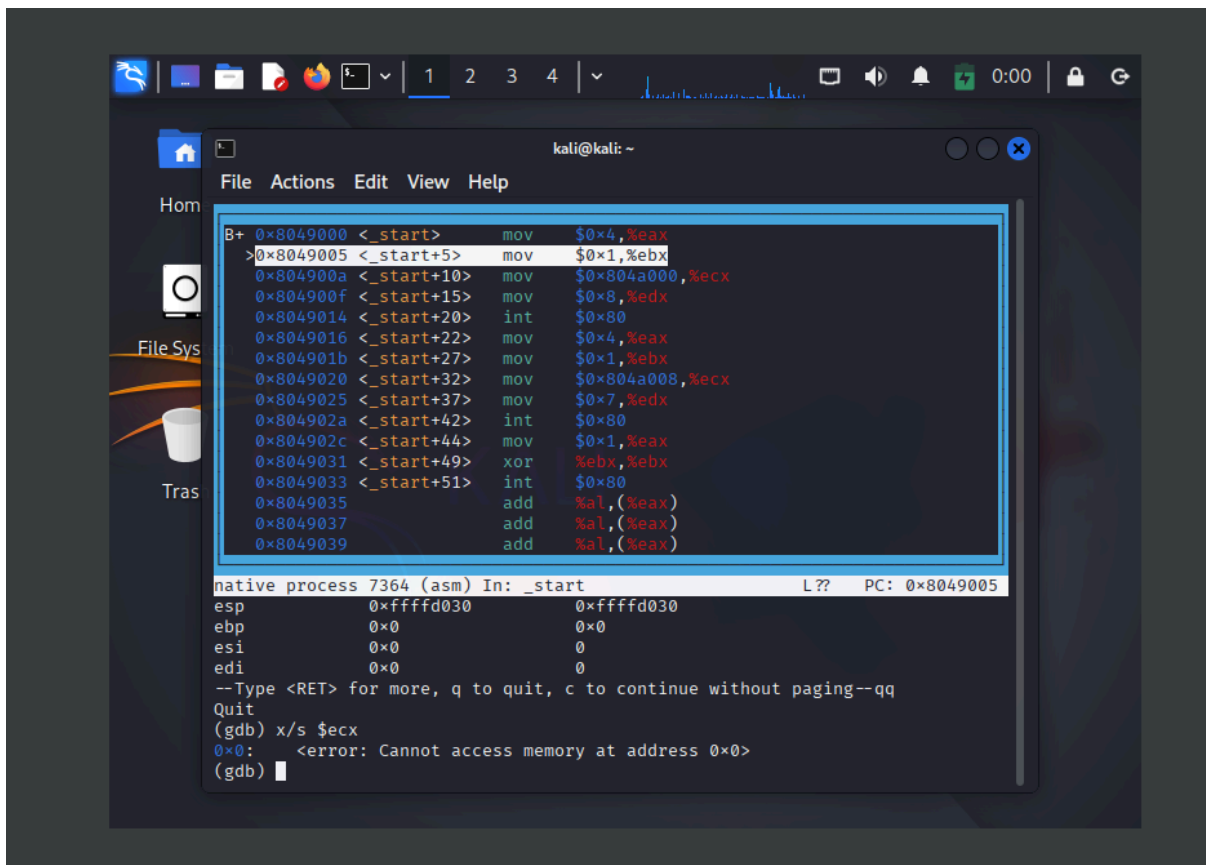


The screenshot shows a terminal window on a Kali Linux system. The user has opened a file named `hello1.asm` in the `gedit` editor. The terminal output shows two warnings from `gedit` regarding missing Peas repositories. The user then compiles the assembly file using `nasm -f elf32 hello1.asm -o hello1.o` and links it using `ld -m elf_i386 hello1.o -o hello1`. Finally, the user runs the executable `./hello1`, which outputs "Hello World".

```
kali@kali: ~  
File Actions Edit View Help  
Hom (kali@kali)-[~]  
$ gedit hello1.asm  
  
** (gedit:1635): WARNING **: 01:17:26.043: Could not load Peas repository: Ty  
pelib file for namespace 'Peas', version '1.0' not found  
  
** (gedit:1635): WARNING **: 01:17:26.044: Could not load PeasGtk repository:  
Typelib file for namespace 'PeasGtk', version '1.0' not found  
  
(kali@kali)-[~]  
$ nasm -f elf32 hello1.asm -o hello1.o  
  
(kali@kali)-[~]  
$ ld -m elf_i386 hello1.o -o hello1  
  
(kali@kali)-[~]  
$ ./hello1  
Hello World  
  
(kali@kali)-[~]  
$
```

```
gdb ./hello
```

```
set disassembly-flavor intel  
break _start  
run  
layout asm  
stepi
```



; hello.asm - Prints first name and second name on different lines (32-bit NASM, Linux)

section .data

firstName db "Atharva", 0x0A ; First name + newline

firstLen equ \$ - firstName

secondName db "Gadgil", 0x0A ; Second name + newline

secondLen equ \$ - secondName

section .text

global _start

_start:

; Print first name

mov eax, 4 ; sys_write

mov ebx, 1 ; stdout

mov ecx, firstName ; message address

mov edx, firstLen ; message length

int 0x80

; Print second name

mov eax, 4

mov ebx, 1

mov ecx, secondName

mov edx, secondLen

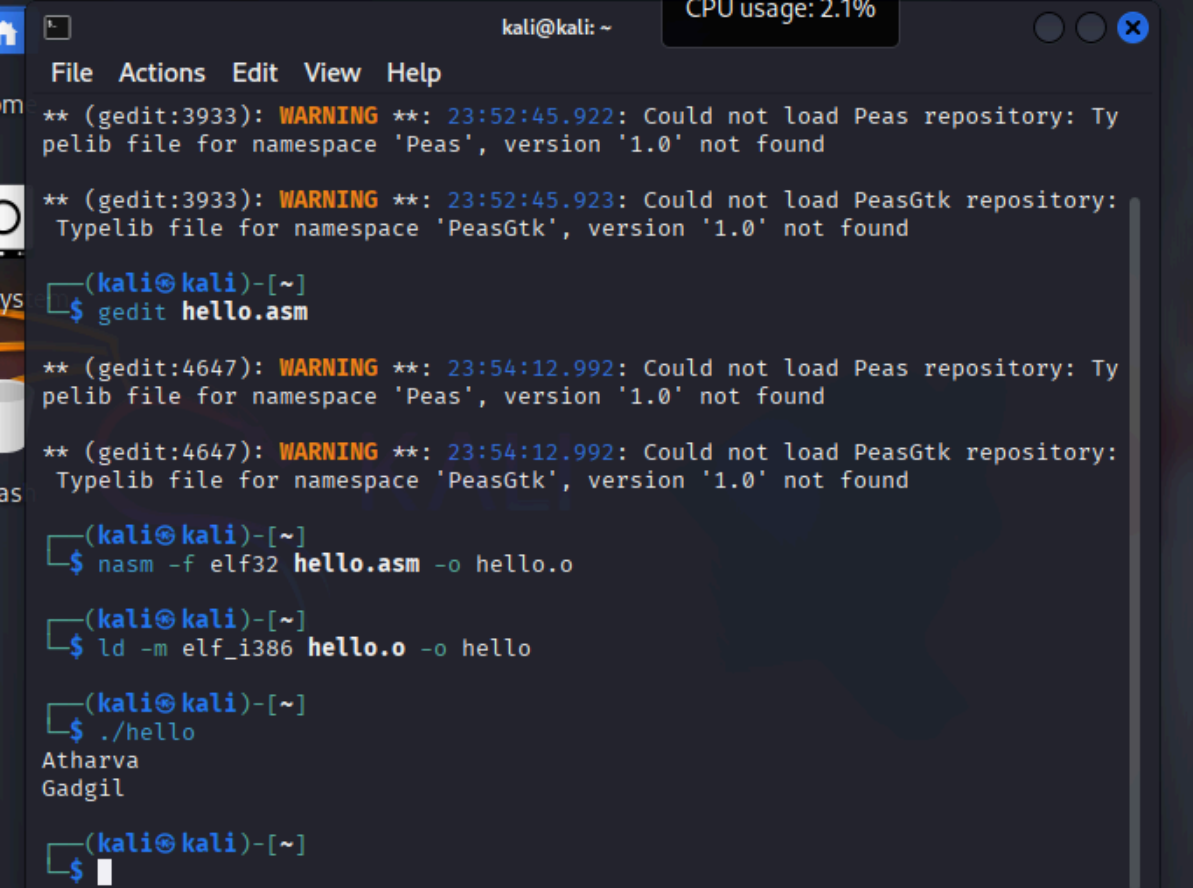
int 0x80

; Exit program

mov eax, 1 ; sys_exit

xor ebx, ebx ; exit code 0

int 0x80



The screenshot shows a terminal window titled 'kali@kali: ~' with a CPU usage indicator of 2.1%. The window contains the following text:

```
File Actions Edit View Help
** (gedit:3933): WARNING **: 23:52:45.922: Could not load Peas repository: Ty
pelib file for namespace 'Peas', version '1.0' not found
** (gedit:3933): WARNING **: 23:52:45.923: Could not load PeasGtk repository:
Typelib file for namespace 'PeasGtk', version '1.0' not found
(kali@kali)-[~]
$ gedit hello.asm
** (gedit:4647): WARNING **: 23:54:12.992: Could not load Peas repository: Ty
pelib file for namespace 'Peas', version '1.0' not found
** (gedit:4647): WARNING **: 23:54:12.992: Could not load PeasGtk repository:
Typelib file for namespace 'PeasGtk', version '1.0' not found
(kali@kali)-[~]
$ nasm -f elf32 hello.asm -o hello.o
(kali@kali)-[~]
$ ld -m elf_i386 hello.o -o hello
(kali@kali)-[~]
$ ./hello
Atharva
Gadgil
(kali@kali)-[~]
$
```