НАЦІОНАЛЬНИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ УКРАЇНИ

«КИЇВСЬКИЙ ПОЛІТЕХНІЧНИЙ ІНСТИТУТ»

ФАКУЛЬТЕТ ІНФОРМАТИКИ І ОБЧИСЛЮВАЛЬНОЇ ТЕХНІКИ

КАФЕДРА ОБЧИСЛЮВАЛЬНОЇ ТЕХНІКИ

**Лабораторна робота №6**

з дисципліни **«**Архітектура комп’ютерів 2**»**

Виконала:

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Перевірив:

Нікольський С. С.

Київ 2020 р.

**Лістинг програми:**

**hello.c**

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\*/

#include <linux/init.h>

#include <linux/module.h>

#include <linux/moduleparam.h>

#include <linux/printk.h>

#include <linux/types.h>

#include <linux/ktime.h>

#include <linux/slab.h>

struct head\_list {

struct head\_list \*next;

ktime\_t start\_time;

};

MODULE\_AUTHOR("Chuiasova Tetiana IV-82");

MODULE\_DESCRIPTION("Hello world (Linux module for lab6)");

MODULE\_LICENSE("Dual BSD/GPL");

static struct head\_list \*head;

static uint repeat = 1;

module\_param(repeat, uint, 0444);

MODULE\_PARM\_DESC(repeat, "repeat amount");

static int \_\_init hello\_init(void)

{

uint i = 0;

struct head\_list \*this\_var, \*next\_var;

if (!repeat) {

pr\_info("Repetition parameter = 0");

pr\_info("");

return 0;

} if (repeat >= 5 && repeat <= 10) {

pr\_warn("Repetition parameter is between 5 and 10");

} else { if (repeat > 10) {

pr\_err("Repetition parameter > 10");

pr\_info("");

return -EINVAL; }

}

head = kmalloc(sizeof(struct head\_list \*), GFP\_KERNEL);

this\_var = head;

for (i = 0; i < repeat; i++) {

this\_var->next = kmalloc(sizeof(struct head\_list), GFP\_KERNEL);

this\_var->start\_time = ktime\_get();

pr\_info("Hello, world!\n");

next\_var = this\_var;

this\_var = this\_var->next;

}

pr\_info("Repeat: %d\n", repeat);

kfree(next\_var->next);

next\_var->next = NULL;

return 0;

}

static void \_\_exit hello\_exit(void)

{

struct head\_list \*tmp\_var;

while (head != NULL && repeat != 0) {

tmp\_var = head;

pr\_info("Time of printing: %lld", tmp\_var->start\_time);

head = tmp\_var->next;

kfree(tmp\_var);

}

pr\_info("");

}

module\_init(hello\_init);

module\_exit(hello\_exit);

**MakeFile**

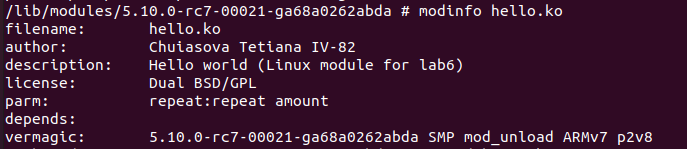


**Посилання на репозиторій:**

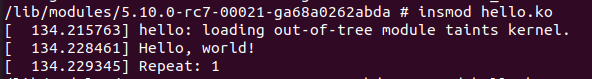
https://github.com/txt2021/Lab6\_AK

**Результати виконання роботи:**

Приклад №1



Приклад №2



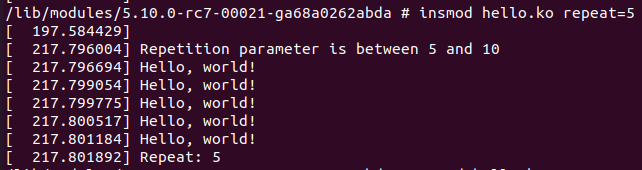


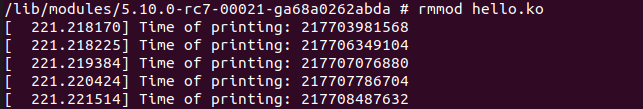
Приклад №3



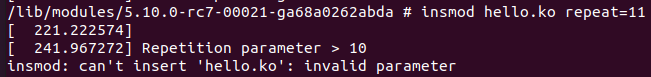


Приклад №4





Приклад №5



Приклад №6

