Lab 5.9.2.1 Structures: pointers to structures

Objectives

Familiarize the student with:

- Structures
- Pointers to structures
- Loops
- Printing on screen

Scenario

Check the program below. Add code to print all the neighbors in ascending and descending order. Use only pointers and loops (don't use the *houseX* variables). Your version of the program must print the same result as the expected output.

```c
#include <stdio.h>
#include <stdlib.h>

struct house
{
 int houseNumber;
 struct house *previous;
 struct house *next;
};

int main(void)
{
 struct house house1;
 struct house house2;
 struct house house3;
 struct house house4;
 house1.houseNumber = 1;
 house2.houseNumber = 3;
 house3.houseNumber = 5;
 house4.houseNumber = 7;
 house1.next = &house2;
 house2.next = &house3;
 house3.next = &house4;
 house4.next = NULL;
 house1.previous = NULL;
 house2.previous = &house1;
 house3.previous = &house2;
 house4.previous = &house3;
 struct house *firstHouse = &house1;
 struct house *lastHouse = &house4;
 struct house *current;
 /* your code */
 return 0;
}
```

Example output

```
Ascending order:
1
3
5
7
Descending order:
7
5
3
1
```