2.- ft_isdigit.-

Function based on the definition given in the BSD man pages for "isdigit". The library associated is <ctype.h>.

Sinopsis: int isdigit (int c);

Purpose: Checks for a digit character.

Parameters:

• **c**: The character to be checked.

Return value:

• 1 if **c** is a digit character, and 0 otherwise.

Description:

The *ft_isdigit* function checks whether the given character is a digit. A digit character is any character from the set *['0', '9']*. The function uses a simple comparison to check if the character's ASCII value falls within this range. If the character falls within this range, it returns 1; otherwise, it returns 0.

Code:

```
#include "libft.h"

int ft_isdigit(int c)
{
    return (c >= '0' && c <= '9');
}
/*
int main(void)
{
    char c;

    printf("Input a digit to obtain 1: ");
    scanf("%c", &c);
    printf("%d\n", ft_isdigit(c));
    return (0);
}
*/</pre>
```

Code explanation:

- 1. **Include header file:** We include the library **libft.h** where all the required libraries are included.
- 2. **Define function:** The **int ft_isdigit(int c)** statement defines the **ft_isdigit** function. The function takes one argument, **c**, which is the character to be checked.
- 3. **Return value:** The **return (c >= '0' && c <= '9')**; statement returns 1 if **c** is a digit character, and 0 otherwise. This statement checks if the ASCII value of **c** is between 48 (ASCII value of '0') and 57 (ASCII value of '9'). If **c** is within this range, the statement returns 1; otherwise, it returns 0.

- 4. Under comments we develop a main function to show how it works:
 - **4.1 Main function:** The <code>int main()</code> statement defines the main function, which is the entry point of the program. The main function prompts the user to enter a digit, reads the input character, and prints a message indicating whether the character is a digit.
 - **4.2 Input digit:** The **scanf("%c", &c);** statement reads a character from the user's input and stores it in the variable **c**.
 - **4.3 Printf**: we include here ft_isdigit(c) which will give us the value 0 or 1 according our previous input in scanf.
 - **4.4 Return value:** The **return (0)**; statement exits the program with a status code of 0, indicating that the program executed successfully.