The following questions are related to system calls

Task-1:

Write a c program that will open a file given from the command line argument and then it will ask the user to input strings that will be written to that file. It will continue to ask the user to enter a string as long as the user enters “-1”. If the given file does not exist in the directory, then your program will automatically create the file.

Task-2:

Write a program that will create a child and another grandchild process. Every process will print a line.

The parent process will print, “I am parent”

Child process will print, “I am child”

The grandchild process will print, “I am grandchild”

Now, write the program in such a way that the following output will be shown -

```
I am grandchild

I am child

I am parent
```

Task-3:

Consider the following code snippet in your main function -

```
a = fork();

b = fork();

c = fork();
```

Now, write the full program, that will check the children's PID and if it is odd then the process will create another child process. Lastly, print how many processes have been created considering the first parent process.

Task-4:

Write a program named "sort.c" where you will give some number from the command line argument and the program will print the sorted array in descending order. Then, write another program named "oddeven.c" which will take some numbers from the command line, then check and print whether the numbers in the array are odd or even.

Now, you have to write a program that will create a child process and the child process will first sort the array that you have declared in this program. And then, the parent process will print the odd/even status for each number in the array.

oddeven

Task -5:

Write a program in c that the parent process will create one child process and 3 grandchild processes and print their IDs

Output: 1. Parent process ID : 0

2. Child process ID: ….
3. Grand Child process ID: …
4. Grand Child process ID: ….
5. Grand Child process ID: ….