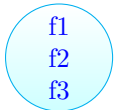# OS_Lab8_Assignment

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14CS01007

1 Function Graph

- Each node contains three items, first one (**f1**) is the function name which gonna call, second one (**f2**) is the function name from which we are calling first function (**f1**) and third one (**f3**) is the file name which contain the first function (**f1**).

  f1
  f2
  f3

- The label on the edges between two nodes denotes the arguments for the calling function in the second node.
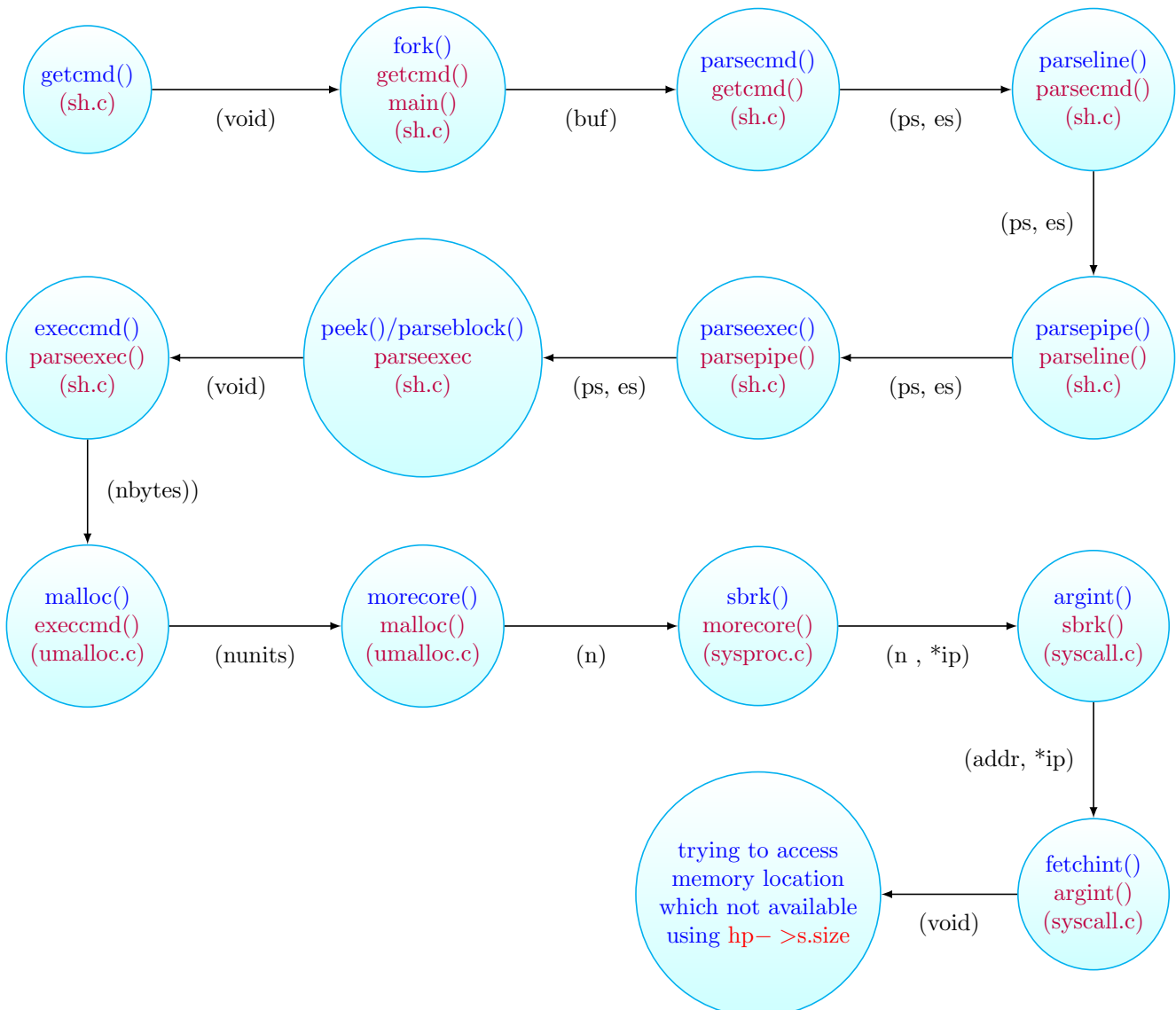
- After **sbkr()** is called, it returns the starting location **p** (0x4000) of the new page but it didn't assign memory to it.

- now we typecast **p** into **Header data structure** which has one **pointer to itself** and one variable called **size**. The pointer **p** (0x4000) points to the itself and location 0x4004 points to **size** in **Header** .

- After that we are trying to access the **size** variable at location 0x4004 using $hp->s.size = n$, which does not exists.

- This causes the **page fault** and hardware handles it than calls **alltraps:** function in the **trapasm.S** file, which then calls the **trap()** function inside the **trap.c** and prints the corresponding error.

- **cr**2 holds the address which causes the **page fault**, we use it in **trap()** function to show error address.