CSSE 132 – Introduction to Systems Programming
Rose-Hulman Institute of Technology

Worksheet 19 Input/Output II

Name (Print):_____ RHIT Username:_____

1. What does the function `fgets(char* buff, int size, FILE* file)` do?

   (a) It reads in [ ] characters/bytes from [ ] and stores them into the buffer pointed by [ ].

   (b) Reading stops after [ ] or [ ].

   (c) If a newline (`'\n'`) is read, it is [ ].

   (d) A [ ] is appended to the buffer right after the characters read from the file.

2. Given the code below, write the output of the program with different input.

```c
#include <stdio.h>

void main() {
    char buff[6];
    buff[5] = '\0';

    fgets(buff, 5, stdin);
    printf("%s", buff);
}
```

   (a) If type `123` and hit enter (`'\n'`), the output is [ ] and the characters stored in `buff` are [ ][ ][ ][ ][ ][ ]

   (b) If type `1234` and hit enter (`'\n'`), the output is [ ] and the characters stored in `buff` are [ ][ ][ ][ ][ ][ ]

   (c) If type `12345` and hit enter (`'\n'`), the output is [ ] and the characters stored in `buff` are [ ][ ][ ][ ][ ][ ]

3. Complete the following code so that the program (say `a.out`) will read a csv file (a table) and print out the *first column* in each row/line. Assume that 1) columns are separated by a single space, 2) each row ends with `'\n'` (including the last row).

   The behavior of the program can be demonstrated with the example below:

```
$ cat sample.csv
Name Age Favorite_Color Superpower
Bob 27 Chartreuse Invisibility
Alice 32 Pink Super_Strength
Charlie 41 Electric_Blue Mind_Reading
Dave 19 Lavender Time_Travel
$ ./a.out sample.csv
Name
Bob
Alice
Charlie
Dave
$
```

```c
#include <stdio.h>

void main(int argc, char** argv) {
  char buff[256];
  FILE* read_f = fopen(_________, ____);

  while (fgets(________, __________, read_f) != __________) {
    int i = 0;
    while(buff[i] != '\0'){
      if(___________ == ' '){
        ____________ = '\0';
        break;
      }
      i++;
    }

    printf("__________", buff);
  }

  fclose(read_f);
}
```

4. **Reflection:** What is one thing from this topic that you found interesting, OR what is one question you are now curious to learn more about?