

2021

Done by Tanmoy

7a

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

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

```
#include <fcntl.h>
```

```
#include <unistd.h>
```

```
int main(int argc, char const *argv[])
```

```
{
```

```
    int source, count_vow = 0, size;
```

```
    char ch;
```

```
    if (argc < 2){
```

```
        printf("Wrong Input");
```

```
        return -1;
```

```
    }
```

```
    source = open(argv[1], O_RDONLY);
```

```
    if (source == -1){
```

```
        printf("While opening file : %s problem orrcurs!", argv[1]);
```

```
        return -1;
```

```

    }

    while(read(source, &ch, 1)){
        if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' || ch == 'A'
|| ch == 'E' || ch == 'I' || ch == 'O' || ch == 'U'){
            count_vow += 1;
        }
    }

    close(source);

    source = open(argv[1], O_RDONLY);
    size = lseek(source, 0L, SEEK_END);

    printf("Number of vowels : %d\n", count_vow);
    printf("Size of the file : %d bytes\n", size);

    return 0;
}

```

8 a

```

#include<stdio.h>
#include<stdlib.h>
#include <fcntl.h>
#include <unistd.h>

```

```
#include <wait.h>
```

```
int main(int argc, char const *argv[])
```

```
{
```

```
    int id, source;
```

```
    char f_name[] = "sample_1.txt", ch;
```

```
    id = fork();
```

```
    if (id == 0){
```

```
        printf("We are in the CHILD process\n");
```

```
        printf("Going to create a file with file name %s\n", f_name);
```

```
        if ((source = open(f_name, O_CREAT | O_WRONLY, 0777)) < 0){
```

```
            printf("While creating file Error occurred!!\n");
```

```
            return -1;
```

```
        }
```

```
        setvbuf(stdout, NULL, _IONBF, 0);
```

```
        printf("\n-----\n");
```

```
        printf("Enter the string (` - for exit):\n");
```

```
        while (read(0, &ch, 1) > 0){
```

```
            if (ch == '`'){
```

```
                printf("\n-----\n");
```

```
                printf("Taking input done exiting..\n");
```

```

        printf("\n-----\n");
        break;
    }
    write(source, &ch, 1);
}

close(source);
}
else if(id > 0){
    wait(NULL);
    printf("\n-----\n");
    printf("IN the Parent process!!\n");
    printf("\n-----\n");

    printf("Opening file : %s\n", f_name);
    printf("\n-----\n");

    printf("Contant of the FILE \n");

    printf("\n-----\n");
    source = open(f_name, O_RDONLY);

```

```
        while (read(source, &ch, 1)){
            // printf("OK");
            printf("%c", ch);
        }
        printf("\n");
        close(source);
    }
    return 0;
}
```