

C PROGRAMMING ASSIGNMENT:

22

DATE: 21.01.2022

SUBMITTED BY: -

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BRANCH: CSE

SECTION: B22

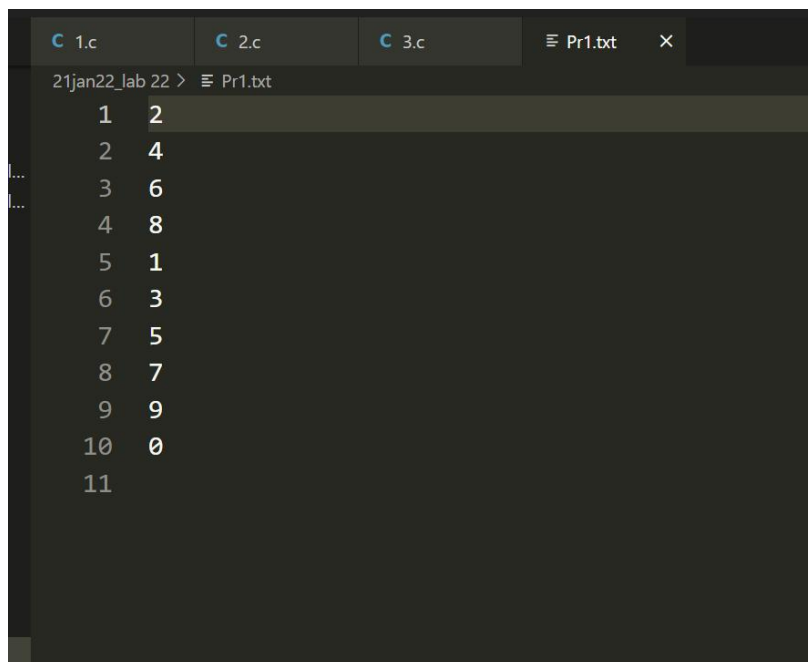
ROLL NO.: 21052258

1. WAP for accessing array elements

Code:

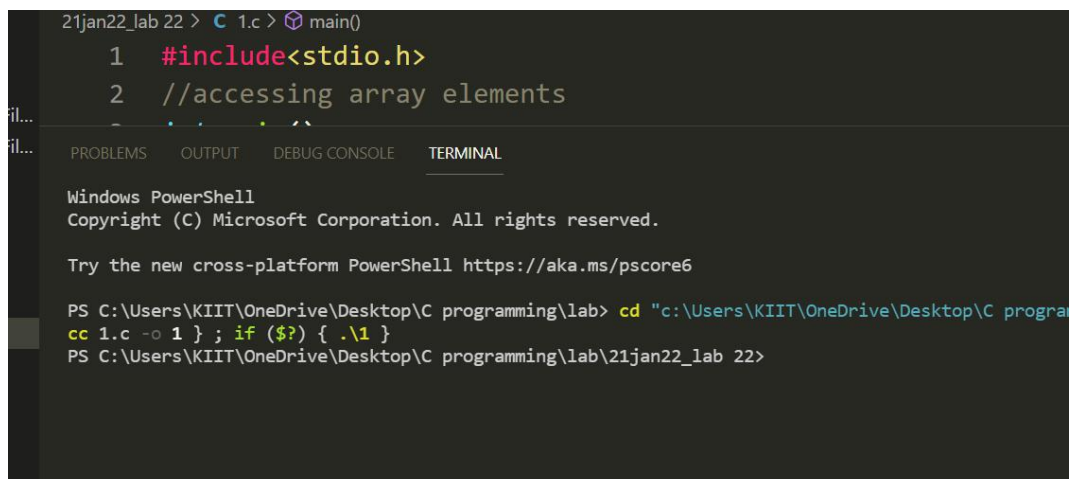
```
#include<stdio.h>
int main()
{
    FILE *fp;
    int i, a[10] = {2, 4, 6, 8, 1, 3, 5, 7, 9, 0};
    fp = fopen("Pr1.txt", "w");
    for (i = 0; i < 10; i++)
        fprintf(fp, "%d\n", a[i]);
    fclose(fp);
    return (0);
}
```

File:



```
21jan22_lab 22 > Pr1.txt
1 2
2 4
3 6
4 8
5 1
6 3
7 5
8 7
9 9
10 0
11
```

Output:



```
21jan22_lab 22 > C 1.c > main()
1 #include<stdio.h>
2 //accessing array elements
il...
il...
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
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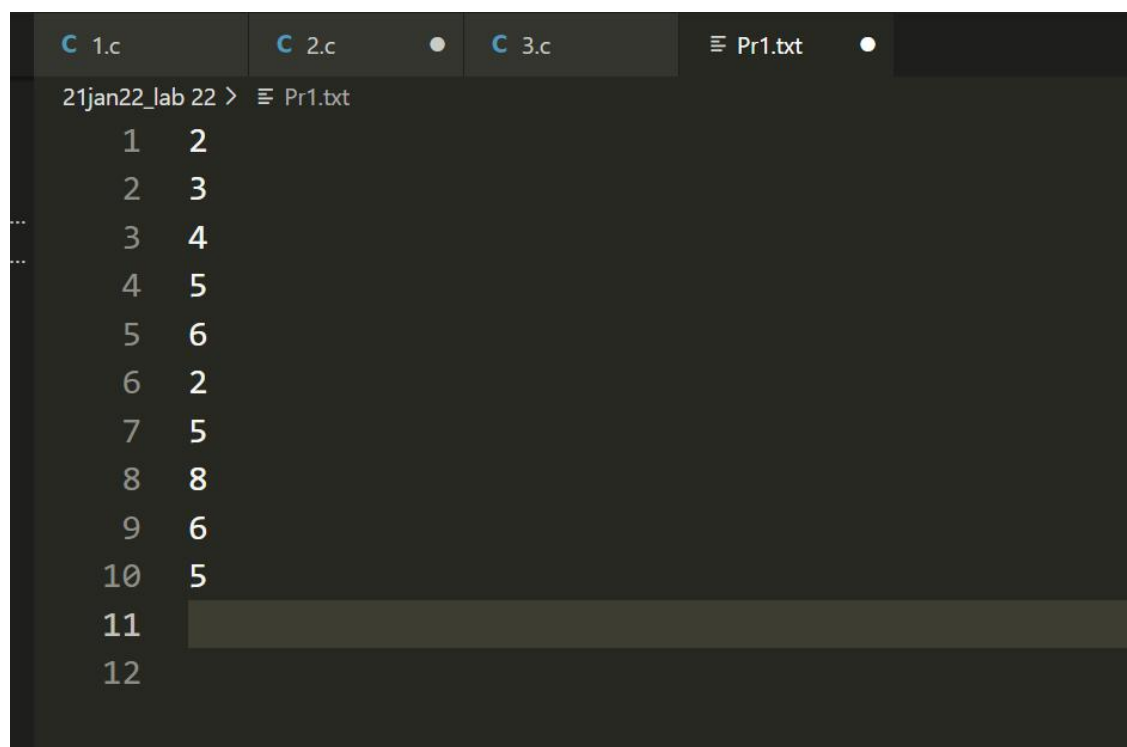
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\OneDrive\Desktop\C programming\lab\21jan22_lab 22"
cc 1.c -o 1 } ; if ($?) { .\1 }
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\21jan22_lab 22>
```

2. WAP to read contents of a file, store it onto an array and find sum of the elements and print in reverse order.

Code:

```
#include <stdio.h>
int main()
{
    FILE *fp;
    int a[10], i, sum = 0;
    fp = fopen("Pr1.txt", "r");
    for (i = 0; i < 10; i++)
    {
        fscanf(fp, "%d", &a[i]);
        sum += a[i];
    }
    printf("SUM= %d ", sum);
    for (i = 9; i >= 0; i--)
        printf("\n %d ", a[i]);
    fclose(fp);
    return (0);
}
```

File:



```
21jan22_lab 22 > Pr1.txt
1 2
2 3
...
3 4
...
4 5
5 6
6 2
7 5
8 8
9 6
10 5
11 
12
```

Output:

```
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Windows PowerShell
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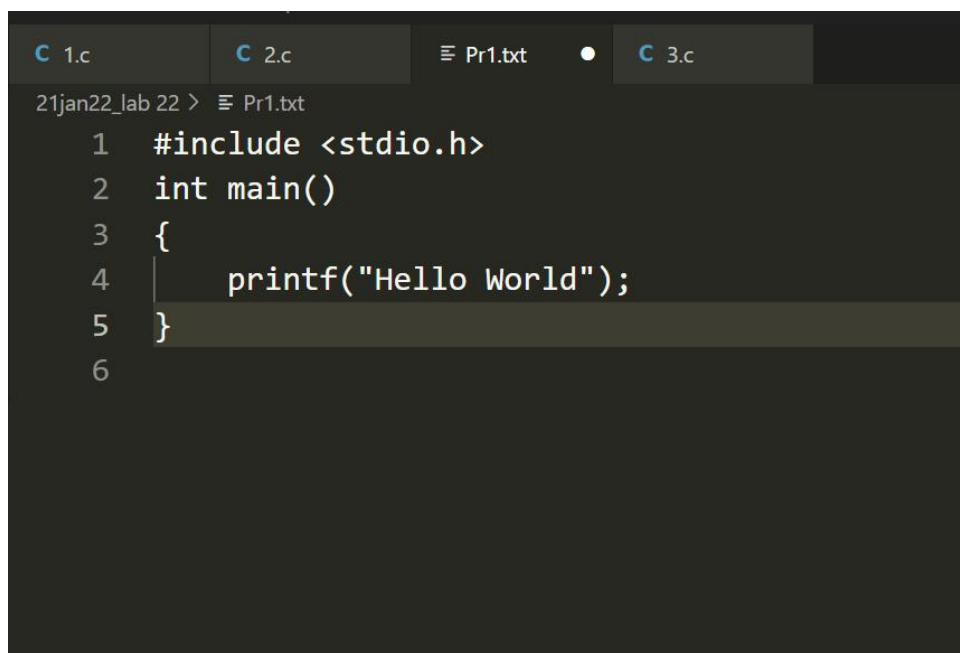
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\OneDrive
cc 2.c -o 2 } ; if ($?) { .\2 }
SUM= 46
5
6
8
5
2
6
5
4
3
2
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\21jan22_lab 22>
```

3. WAP to Count chars, blank spaces, tabs and newlines in a file.

Code:

```
#include <stdio.h>
int main()
{
    FILE *fp;
    char ch;
    int noc = 0, nob = 0, not = 0, non = 0;
    fp = fopen("Pr1.txt", "r");
    while ((ch = fgetc(fp)) != EOF)
    {
        noc++;
        if (ch == ' ')
            nob++;
        if (ch == '\t')
            not++;
        if (ch == '\n')
            non++;
    }
    //continuation of program
    printf("\nNo. of characters = %d", noc);
    printf("\nNo. of blanks = %d", nob);
    printf("\nNo. of tabs = %d", not);
    printf("\nNo. of lines = %d", non);
    fclose(fp);
    return 0;
}
```

File:



The screenshot shows a code editor with a dark theme. At the top, there are tabs for '1.c', '2.c', 'Pr1.txt', and '3.c'. The 'Pr1.txt' tab is active. Below the tabs, the editor shows the following C code:

```
21jan22_lab 22 > Pr1.txt
1  #include <stdio.h>
2  int main()
3  {
4      printf("Hello World");
5  }
6
```

Output:

```
1 //Count chars, blank spaces, tabs and newlines
2 #include <stdio.h>
```

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Windows PowerShell

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```
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab> cd "c:\Users\KIIT\OneDrive\Desktop\C programming\lab"
cc 3.c -o 3 } ; if ($?) { .\3 }
```

No. of characters = 61

No. of blanks = 7

No. of tabs = 0

No. of lines = 5

```
PS C:\Users\KIIT\OneDrive\Desktop\C programming\lab\21jan22_lab 22>
```