C PROGRAMMING ASSIGNMENT: 14

DATE: 10.12.21

SUBMITTED BY: -

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BRANCH: CSE

SECTION: B22

ROLL NO.: 21052258

1. WAP sum of elements in array

Code;

```c
#include<stdio.h>

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

{

    int a[10],s=0;

    for (int i = 0; i < 10; i++)

    {

       printf("Enter number at %d position of array",i);

       scanf("%d",&a[i]);

       s=s+a[i];

    }

    printf("The sum is %d\n",s);


    return 0;

}
```

Output:

```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\KIIT\Desktop\C programming\lab> cd "c:\Users\KIIT\Desktop\C
($?) { .\1 }
Enter number at 0 position of array3
Enter number at 1 position of array4
Enter number at 2 position of array5
Enter number at 3 position of array6
Enter number at 4 position of array7
Enter number at 5 position of array4
Enter number at 6 position of array5
Enter number at 7 position of array6
Enter number at 8 position of array3
Enter number at 9 position of array3
The sum is 46
PS C:\Users\KIIT\Desktop\C programming\lab\10dec21_lab14>
```

2. WAP to print reversal array

Code:

```c
#include <stdio.h>

//reversal array

int arrayRev(int n)

{

    int arg1[n];

     for (int i = 0; i < n; i++)

    {

        printf("Enter element at index %d\n", i);

        scanf("%d", &arg1[i]);

    }

    printf("\nThe original array is: \n");

    for (int i = 0; i < n; i++)

    {

        printf("%d\t", arg1[i]);

    }

    printf("\nThe reversal array is: \n");

    for (int i = 1; i <= n; i++)

    {

        printf("%d\t", arg1[n - i]);

    }

}


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

{

    int p;

    printf("Enter number of elements in the array\n");

    scanf("%d", &p);


    arrayRev(p);

    return 0;

}
```

Output:

```
Windows PowerShell
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PS C:\Users\KIIT\Desktop\C programming\lab> cd "c:\Users\KIIT\Desktop\C prog
le.c -o tempCodeRunnerFile } ; if ($?) { .\tempCodeRunnerFile }
Enter number of elements in the array
4
Enter element at index 0
1
Enter element at index 1
2
Enter element at index 2
3
Enter element at index 3
4

The original array is:
1       2       3       4
The reversal array is:
4       3       2       1
PS C:\Users\KIIT\Desktop\C programming\lab\10dec21_lab14>
```

3.WAP to find max of 5 elements using array

Code:

```c
#include <stdio.h>
int main(int argc, char const *argv[])
{
    int a[5], largest=0;
    for (int i = 0; i < 5; i++)
    {
        printf("Enter element at %d index:\n", i);
        scanf("%d", &a[i]);
    }

    for (int i = 0; i < 5; i++)
    {
        if (a[i] > largest)
        {
            largest = a[i];
        }

    }
    printf("largest:%d\n", largest);
    return 0;
}
```

Output:

```
Windows PowerShell
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PS C:\Users\KIIT\Desktop\C programming\lab> cd "c:\Users\KIIT\Deskt
($?) { .\3 }
Enter element at 0 index:
2
Enter element at 1 index:
3
Enter element at 2 index:
5
Enter element at 3 index:
8
Enter element at 4 index:
6
largest:8
PS C:\Users\KIIT\Desktop\C programming\lab\10dec21_lab14>
```
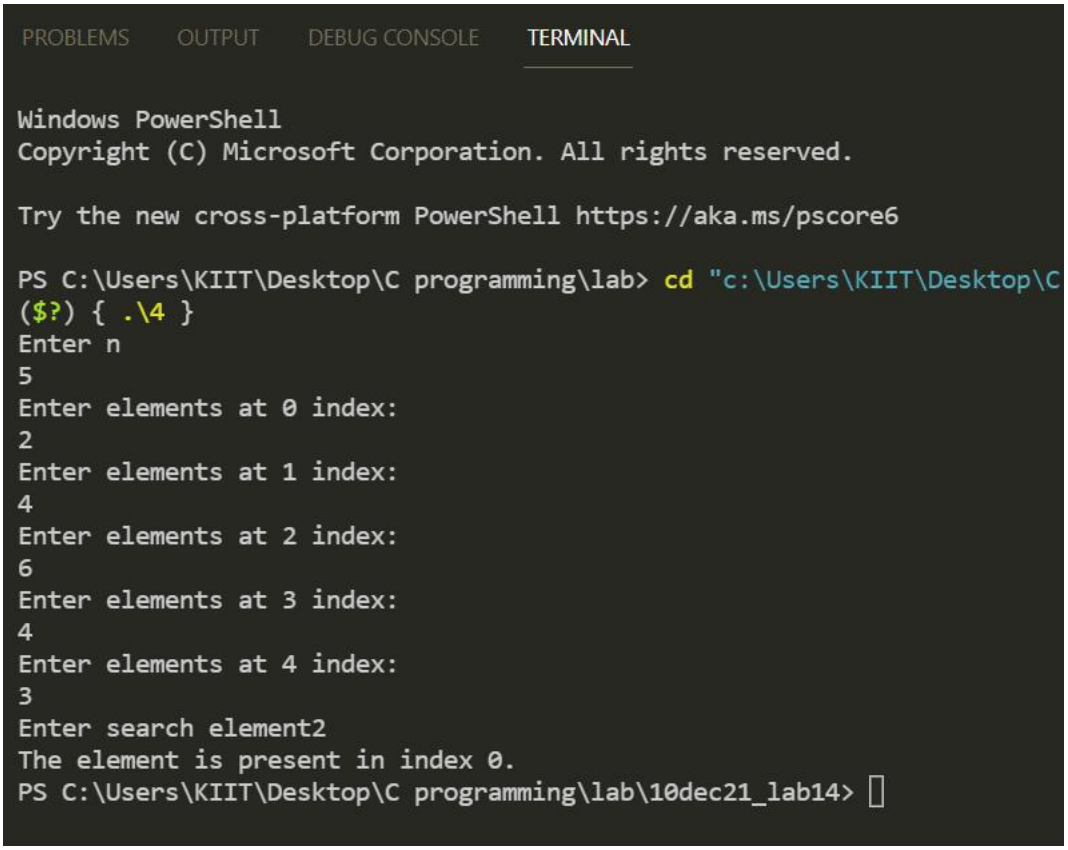

3. WAP to check for elements if it is present in the array

Code:

```c
#include <stdio.h>

//check for elements if it is present in the array

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

{

    int n, p, c = 0;

    int a[50];

    printf("Enter n\n");

    scanf("%d", &n);

    for (int i = 0; i < n; i++)

    {

        printf("Enter elements at %d index:\n", i);

        scanf("%d", &a[i]);

    }

    printf("Enter search element");

    scanf("%d", &p);

    for (int i = 0; i < n; i++)

    {

        if (p == a[i])

        {

            c++;

            printf("The element is present in index %d.\n", i);

        }

    }

    if (c != 0)

    {

        return 0;

    }

    else

    {

        printf("The element is not present in array");

    }
```

```
    return 0;
}
```

Output:



4. WAP to print Average marks using arrays

Code:

```c
#include <stdio.h>


int main()
{
    int i,avg,count=0,sum=0,marks[20];
    for(i=0;i<20;i++)
    {
        printf("Enter marks: ");
        scanf("%d",&marks[i]);
        sum=sum+marks[i];
        if(marks[i]>89)
            count++;
    }
    avg=sum/20;
    printf("Average marks= %d\n",avg);
    printf("Numer of students secured O grade= %d\n",count);
    return 0;
}
```

Output:

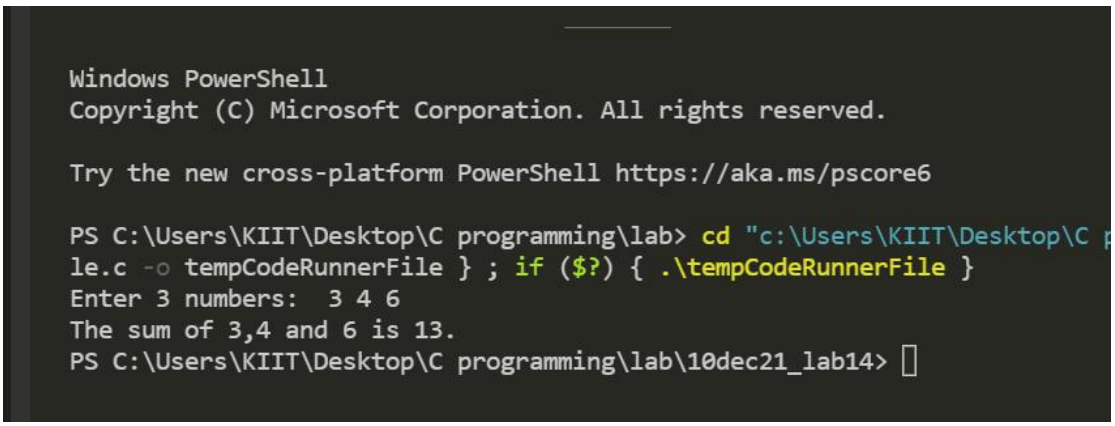
```
-o Average_Marks } ; if ($?) { .\Average_Marks }
Enter marks: 40
Enter marks: 13
Enter marks: 24
Enter marks: 36
Enter marks: 74
Enter marks: 35
Enter marks: 67
Enter marks: 89
Enter marks: 34
Enter marks: 86
Enter marks: 46
Enter marks: 8
Enter marks: 5
Enter marks: 789
Enter marks: 356
Enter marks: 578
Enter marks: 87
Enter marks: 45
Enter marks: 7
Enter marks: 5
Average marks= 121
Numer of students secured O grade= 3
PS C:\Users\KIIT\Desktop\C programming\lab\10dec21_lab14> 6
```

5. WAP to print sum of 3 numbers using function prototype

Code;

```c
#include <stdio.h>


void sum()
{
    int n1,n2,n3,sum;
    printf("Enter 3 numbers:  ");
    scanf("%d %d %d",&n1,&n2,&n3);
    sum=n1+n2+n3;
    printf("The sum of %d,%d and %d is %d.",n1,n2,n3,sum);
}
int main()
{
    sum();
    return 0;
}
```

Output;



6. WAP to print X raised to Y using function prototype

Code:

```c
#include <stdio.h>
#include <math.h>
void power()
{
    int n,k,ans;
    printf("Enter base: ");
    scanf("%d",&n);
    printf("Enter exponent: ");
    scanf("%d",&k);
    ans=pow(n,k);
    printf("%d raised to %d is %d.",n,k,ans);
}
int main()
{
    power();
    return 0;
}
```

Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

Windows PowerShell
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PS C:\Users\KIIT\Desktop\C programming\lab> cd "c:\Users\KIIT\Desktop\C pro
-o X_raised_to_Y } ; if ($?) { .\X_raised_to_Y }
Enter base: 2
Enter exponent: 5
2 raised to 5 is 32.
PS C:\Users\KIIT\Desktop\C programming\lab\10dec21_lab14>
```