Name : Khizar Ali

Roll No: 22P-9269
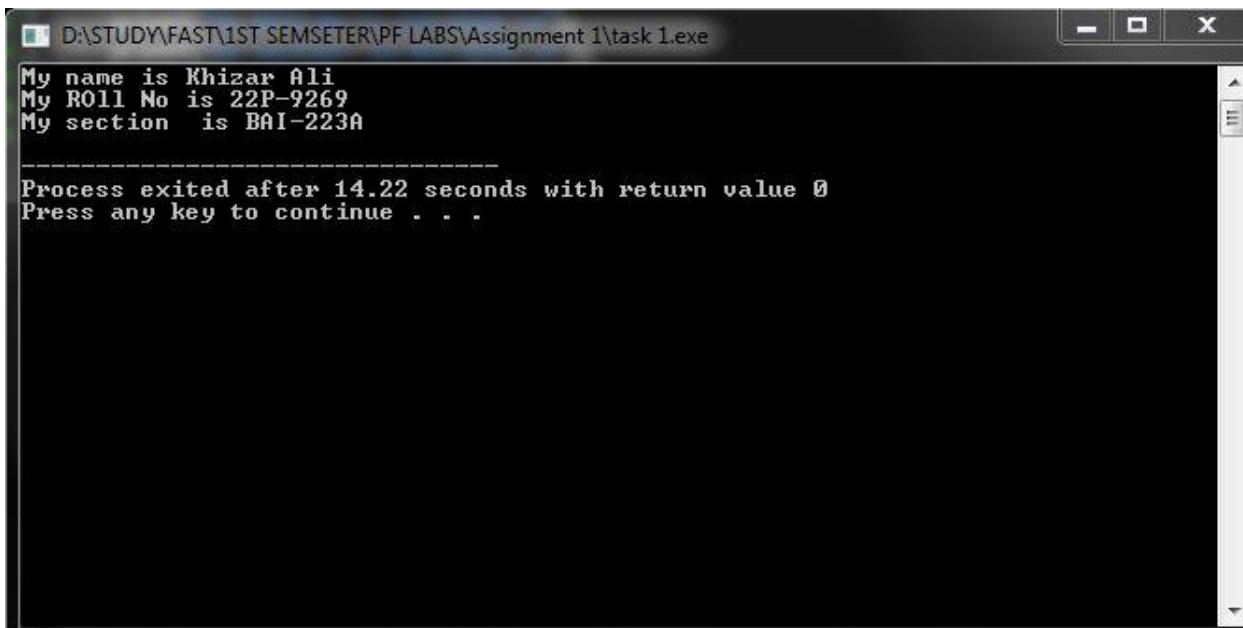
Subject: PF LAB

Problem: 1

Write a C program to print your name, roll no and section in separate lines.

#include<stdio.h>

int main()

{

        printf("My name is Khizar Ali \n");

        printf("My ROll No is 22P-9269 \n");

        printf("My section is BAI-223A \n");

        return 0;

}

Problem: 2

Write a program that prints the following patterns using printf statement.

#include<stdio.h>

int main()

{

        printf("Pattern 1 \n\n");

        printf("****** \n");

        printf("****** \n");

        printf("****** \n");

```c
        printf("****** \n");
        printf("****** \n\n\n");


        printf("Pattern 2 \n\n");
        printf("* \n");
        printf("** \n");
        printf("*** \n");
        printf("**** \n");
        printf("***** \n\n\n");



        printf("Pattern 3 \n\n");
        printf("    * \n");
        printf("   ** \n");
        printf("  *** \n");
        printf(" **** \n");
        printf("***** \n\n\n");


        printf("Pattern 4 \n\n");
        printf("  * \n");
        printf(" *** \n");
        printf("***** \n");
        printf(" *** \n");
        printf("  * \n\n\n");


        return 0;

}
```

```
Pattern 1

******
******
******
******
******

Pattern 2

*
**
***
****
*****

Pattern 3

    *
   **
  ***
 ****
*****

Pattern 4

    *
   ***
*****
   ***
    *
```

Problem: 3

Write a program that calculates the area of a rectangle and print the result on screen.

The formula to calculate the Area is given below.

```c
#include<stdio.h>

int main()
{
        float l, w ,Area ;

        printf("Enter legth of rectangle \n");

        scanf("%f",&l);

        printf("Enter width of rectangle \n");

        scanf("%f",&w);

        Area = w * l ;

        printf ("The area of rectangle is %.2f \n",Area);

        return 0;

}
```

```
Enter legth of rectangle
3
Enter width of rectangle
5
The area of rectangle is 15.00

_____
Process exited after 25.82 seconds with return value 0
Press any key to continue . . .
```

Problem: 4

Write a program that takes the length, width and height of a parallelepiped and finds its volume. The formula to calculate the volume is given below.

Volume = length * width * height

#include<stdio.h>

int main()

{

       float length , width , hight , volume ;

       printf("Enter length \n");

       scanf("%f",&length);

       printf("Enter width \n");

       scanf("%f",&width);

       printf("Enter hight \n");

       scanf("%f",&hight);

       volume = length * width * hight ;

       printf("The area of parallelepiped is %.2f \n",volume);

       return 0 ;

}


```
Enter length
4
Enter width
3.7
Enter hight
2.6
The area of parallelepiped is 38.48

_____
Process exited after 12.63 seconds with return value 0
Press any key to continue . . .
```