

Experiment no – 05(a)

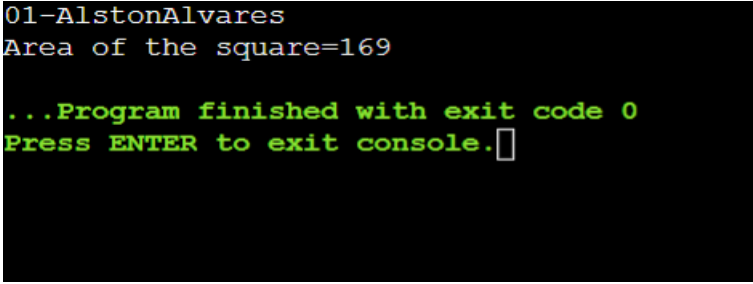
Aim: Write a program to print area of square using function.

Code:

```
#include <stdio.h>

int main()
{ printf("01-AlstonAlvares\n");
  int s=13;
  int area_square=s*s;
  printf("Area of the square=%d",area_square);
}
```

Output:



```
01-AlstonAlvares
Area of the square=169

...Program finished with exit code 0
Press ENTER to exit console.█
```

Experiment no – 05(b)

Aim: Write a program using recursive function.

Code:

```
#include <stdio.h>

int sum(int n);

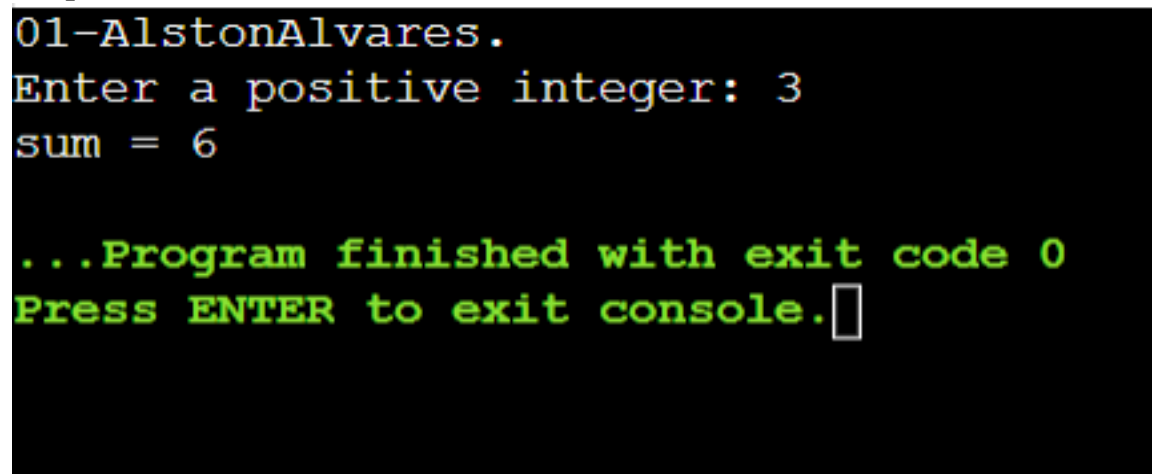
int main() { printf("01-AlstonAlvares.\n");

    int number, result;

    printf("Enter a positive integer: ");
    scanf("%d", &number);
    result = sum(number);
    printf("sum = %d", result);
    return 0;
}

int sum(int n) {
    if (n != 0)
        // sum() function calls itself
        return n + sum(n-1);
    else
        return n;
}
```

Output:

A screenshot of a terminal window with a black background. The text is displayed in a monospaced font. The first three lines are in white: "01-AlstonAlvares.", "Enter a positive integer: 3", and "sum = 6". The last two lines are in green: "...Program finished with exit code 0" and "Press ENTER to exit console." followed by a small white square cursor.

```
01-AlstonAlvares.
Enter a positive integer: 3
sum = 6

...Program finished with exit code 0
Press ENTER to exit console. □
```

Experiment no – 05(c)

Aim: Write a program to square root, abs() value using function.

Code:

```
#include<stdio.h>

#include<math.h>

int main()
{ printf("01-AlstonAlvares.\n");

  int num, a;

  printf("Please enter a number :\n");

  scanf("%d",&num);

  a = abs(num);

  printf("Calculated absolute value is : %d\n", a);

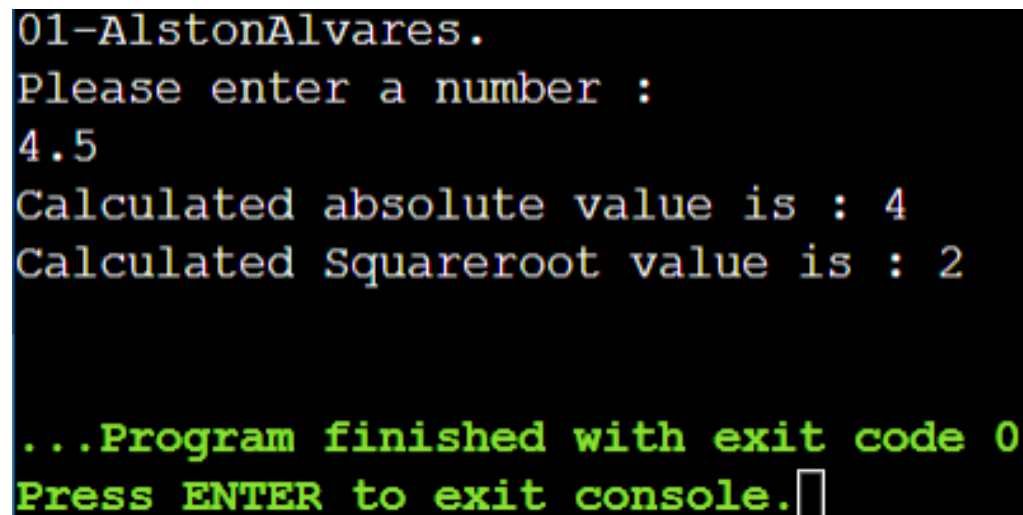
  a = sqrt(num);

  printf("Calculated Squareroot value is : %d\n",a);

  return 0;

}
```

Output:



```
01-AlstonAlvares.
Please enter a number :
4.5
Calculated absolute value is : 4
Calculated Squareroot value is : 2

...Program finished with exit code 0
Press ENTER to exit console.
```

Experiment no – 05(d)

Aim: Write a program using go to statement.

Code:

```
#include<stdio.h>

int main()
{ printf("01-AlstonAlvares.\n");
    int n;
    for(;;)    /*ifinite loop*/
    {
        printf("enter any number :");
        scanf("%d",&n);
        if(n == 5)
            goto ap;    /* use of goto statement*/
        if (n% 2 == 0)
            continue; /*use of continue statement*/
        if (n% 3 == 0)
            break; /*use of break state*/
        printf("Inside loop");
    }
    ap:
    printf("Outside loop");
    return 0;
}
```

Output:

```
01-AlstonAlvares.
enter any number :2
enter any number :3
Outside loop

...Program finished with exit code 0
Press ENTER to exit console.
```