Experiment no – 05(a)

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

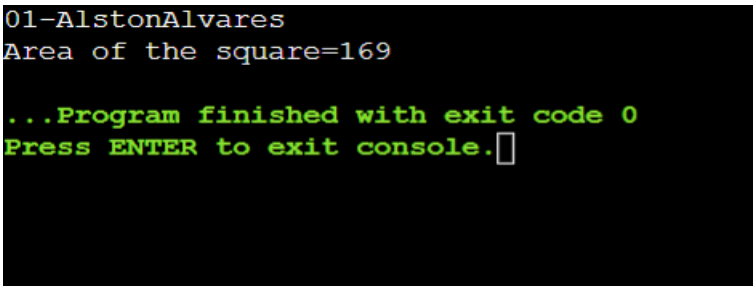
Algorithm:

i. Start.
ii. Declare at s as integer.
iii. Initialize value of s.
iv. Calculate at s×s.
v. print area of triangle .
vi. End.

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:



Experiment no – 05(b)

Aim: Write a program using recursive function.

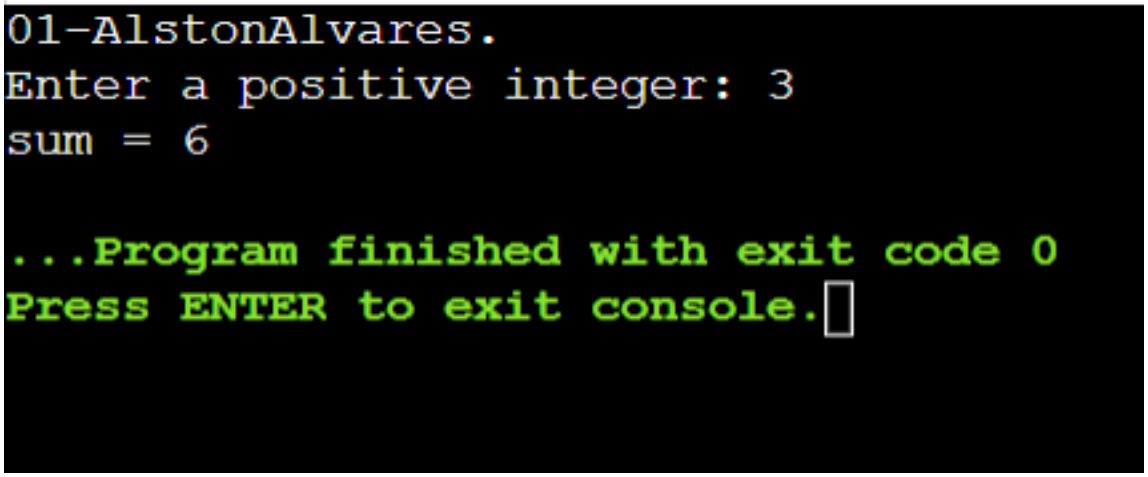
Algorithm:

i. Start.
ii. Read the Input.
iii. Perform recursion.
iv. Print result.
v. Stop.

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:



Experiment no – 05(c)

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

Algorithm:

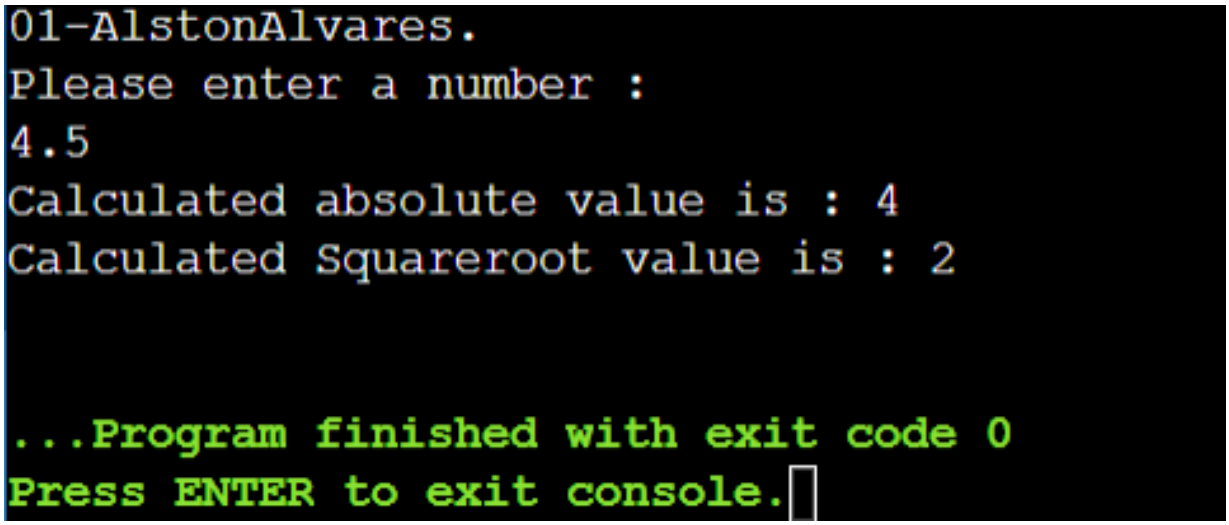
i. Start
ii. Read the input
iii. Calculate absolute value
iv. Calculate square root value
v. Print results
vi. Stop

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.

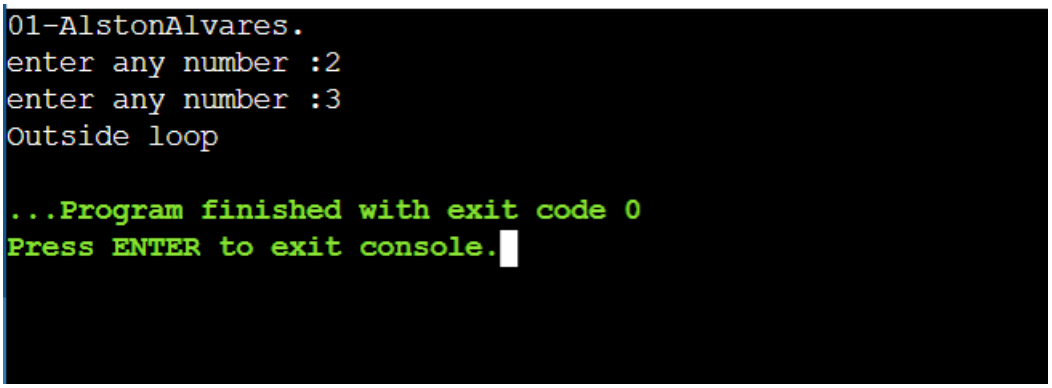
Algorithm:

i. Start
ii. Read the Input
iii. Check if the input is inside loop or outside loop
iv. Print result
v. Stop

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.