```
#include <stdio.h>
#include <math.h>
#include <stdlib.h>
int main() {
   int s=4;
   float a,v,r,h;
   while(s)
   {
   printf("Enter the choice of shape:\n");
   printf("01.Cylinder\n02.Cone\n03.Sphere\n0.Exit\n");
   scanf("%d",&s);
   switch(s)
   {
      case 01:printf("Enter the radius:\n");
            scanf("%f",&r);
            printf("Enter the height:\n");
            scanf("%f",&h);
            a=(2*3.14*r*h)+(2*3.14*r*r);
            v=(3.14*r*r*h);
            printf("Area: %f\nVolume: %f\n",a,v);
            break;
      case 02:printf("Enter the radius:\n");
            scanf("%f",&r);
            printf("Enter the height:\n");
            scanf("%f",&h);
            a=(3.14*r)*(r+sqrt((h*h)+(r*r)));
            v=(3.14*r*r*h)/3.0;
            printf("Area: %f\nVolume: %f\n",a,v);
            break;
      case 03:printf("Enter the radius:\n");
            scanf("%f",&r);
            a=4*3.14*r*r;
            v=(4*3.14*r*r*r)/3.0;
            printf("Area: %f\nVolume: %f\n",a,v);
            break;
      case 0:printf("Exit\n");
            exit(0);
      default:printf("Invalid choice\n");

   }
   }
   return 0;
}
```

main.c

```c
#include <stdio.h>
#include <math.h>
#include <stdlib.h>
int main() {
    int s=4;
    float a,v,r,h;
    while(s)
    {
    printf("Enter the choice of shape:\n");
    printf("01.Cylinder\n02.Cone\n03.Sphere\n0.Exit\n");
    scanf("%d",&s);
    switch(s)
    {
        case 01:printf("Enter the radius:\n");
                scanf("%f",&r);
                printf("Enter the height:\n");
                scanf("%f",&h);
                a=(2*3.14*r*h)+(2*3.14*r*r);
                v=(3.14*r*r*h);
                printf("Area: %f\nVolume: %f\n",a,v);
                break;
        case 02:printf("Enter the radius:\n");
                scanf("%f",&r);
                printf("Enter the height:\n");
                scanf("%f",&h);
                a=(3.14*r)*(r+sqrt((h*h)+(r*r)));
                v=(3.14*r*r*h)/3.0;
                printf("Area: %f\nVolume: %f\n",a,v);
                break;
        case 03:printf("Enter the radius:\n");
                scanf("%f",&r);
                a=4*3.14*r*r;
                v=(4*3.14*r*r*r)/3.0;
                printf("Area: %f\nVolume: %f\n",a,v);
                break;
        case 0:printf("Exit\n");
                exit(0);
        default:printf("Invalid choice\n");

    }
    }
    return 0;
}
```

input

```
Enter the radius:
4
Enter the height:
3
Area: 175.839996
Volume: 150.720001
Enter the choice of shape:
01.Cylinder
02.Cone
03.Sphere
0.Exit
```