

```
1     printf("\t=:Book %d Detail:=\n",i+1);
2
3     printf("Enter the Book Name:\n");
4     scanf("%s",b[i].name);
5
6     printf("Enter the Author of Book:\n");
7     scanf("%s",b[i].author);
8
9     printf("Enter the Pages of Book:\n");
10    scanf("%d",&b[i].pages);
11
12    printf("Enter the Price of Book:\n");
13    scanf("%f",&b[i].price);
14
15
16 }
17
18 void output(struct bookdetail v[],int n)
19 {
20
21     int i,t=1;
22
23 }
```

```
54         for(i=0;i<n;i++,t++)  
55  
56     {  
57  
58         printf("\n");  
59  
60         printf("Book No.%d\n",t);  
61             I  
62             printf("\t\tBook %d Name is=%s \n",t,v[i].name);  
63  
64             printf("\t\tBook %d Author is=%s \n",t,v[i].author);  
65  
66             printf("\t\tBook %d Pages is=%d \n",t,v[i].pages);  
67  
68             printf("\t\tBook %d Price is=%f \n",t,v[i].price);  
69  
70         printf("\n");  
71  
72     }  
73  
74 }
```

VICKY  
Enter  
vishnu  
Enter  
12  
Enter  
50  
Book

The image shows a screenshot of a mobile application interface. On the left, there is a vertical toolbar with icons for various programming languages: C, C++, Java, Python, JavaScript, Go, and PHP. The main area is a code editor titled "main.c" containing the following C code:

```
1 #include <stdio.h>
2 int width;
3 int height;
4
5 int area;
6 int perimeter;
7
8 int main() {
9     height = 9;
10    width = 2;
11
12    perimeter = 2*(height + width);
13    printf("Perimeter of the rectangle = %d inches\n", perimeter);
14
15    area = height * width;
16    printf("Area of the rectangle = %d square inches\n", area);
17
18    return(0);
19 }
```

On the right side of the screen, there is a terminal window displaying the output of the compiled program:

```
/tmp/x0N0f1ZSg8.o
Perimeter of the rectangle = 22 inches
Area of the rectangle = 18 square inches
```

main.c

```
1 #include <stdio.h>
2 #include <string.h>
3 struct student {
4     char name[50];
5     int id;
6     float gpa;
7 };
8 int main() {
9     struct student s1;
10
11     strcpy(s1.name, "Vishnu");
12     s1.id = 12345;
13     s1.gpa = 3.75;
14
15     printf("Name: %s\n", s1.name);
16     printf("ID: %d\n", s1.id);
17     printf("GPA: %.2f\n", s1.gpa);
18     return 0;
19 }
```

Run

Output

```
/tmp/aVRwsc6QKb.o
Name: Vishnu
ID: 12345
GPA: 3.75
```

```
1 #include <stdio.h>
2 struct student {
3     char firstName[50];
4     int roll;
5     float marks;
6 } s[5];
7
8 int main() {
9     int i;
10    printf("Enter information of students:\n");
11
12    // storing information
13    for (i = 0; i < 5; ++i) {
14        s[i].roll = i + 1;
15        printf("\nEnter roll number%d,\n", s[i].roll);
16        printf("Enter first name: ");
17        scanf("%s", s[i].firstName);
18        printf("Enter marks: ");
19        scanf("%f", &s[i].marks);
20    }
21    printf("Displaying Information:\n\n");
22
23    // displaying information
24    for (i = 0; i < 5; ++i) {
25        printf("\nRoll number: %d\n", i + 1);
26        printf("First name: ");
27        puts(s[i].firstName);
```

/tmp/uT9AaATHar.o  
Enter information of students:  
For roll number1,  
Enter first name: visva  
Enter marks: 100  
For roll number2,  
Enter first name: vishnu  
Enter marks: 90  
For roll number3,  
Enter first name: vicky  
Enter marks: 98  
For roll number4,  
Enter first name:sathish  
Enter marks: 90  
For roll number5,  
Enter first name: vikas  
Enter marks: 86  
Displaying Information:  
  
Roll number: 1  
First name: visva  
Marks: 100.0  
  
Roll number: 2  
First name: vishnu  
Marks: 90.0

```
Enter marks: 90
For roll number5,
Enter first name: vikas
Enter marks: 86
Displaying Information:
```

```
Roll number: 1
First name: visva
Marks: 100.0
```

```
Roll number: 2
First name: vishnu
Marks: 90.0
```

```
Roll number: 3
First name: vicky
Marks: 98.0
```

```
Roll number: 4
First name: athish
Marks: 90.0
```

```
Roll number: 5
First name: vikas
Marks: 86.0
```

Enter a number:5

You entered an integer:5

Enter a number:6

You entered an integer:6

Enter a number:\_

main.cpp



Run

Output

Clear

```
1 #include <stdio.h>
2
3 struct person {
4     char name;
5     int age;
6     float height;
7 };
8
9 int main() {
10    struct person p;
11
12    printf("Enter name: ");
13    scanf("%s", p.name);
14
15    printf("Enter age:200 ");
16    scanf("%d", &p.age);
17
18    printf("Enter height:10 ");
19    scanf("%f", &p.height);
20
21    printf("Name: %s\n", p.name);
22    printf("Age: %d\n", p.age);
23    printf("Height: %.2f\n", p.height);
```

/tmp/PEJHnSUnzA.o

Enter name: raja

Enter age:200 Enter height:10 Name: (null)

Age: 0

Height: 0.00

```
1 #include <stdio.h>
2
3 struct employee{
4     char    name[30];
5     int     empId;
6     float   salary;
7 };
8
9 int main()
10 {
11     struct employee emp;
12
13     printf("\nEnter details :\n");
14     printf("Name ?:");      gets(emp.name);
15     printf("ID ?:");       scanf("%d",&emp.empId);
16     printf("Salary ?:");   scanf("%f",&emp.salary);
17
18     printf("\nEntered detail is:");
19     printf("Name: %s",emp.name);
20     printf("Id: %d",emp.empId);
21     printf("Salary: %f\n",emp.salary);
22     return 0;
23 }
```

Run

Output

```
/tmp/nzq2upCQMb.o
Enter details :
Name ?:vishnu
ID ?:192210390
Salary ?:1,00,000
Entered detail is:Name: vishnuId: 192210390Salary: 1.000000
```

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```
1 #include<stdio.h>
2 #include<string.h>
3 #define SIZE 20
4
5 struct bookdetail
6 {
7     char name[20];
8     char author[20];
9     int pages;
10    float price;
11 }
12 }
13
14 void output(struct bookdetail v[],int n);
15
16 void main()
17 {
18     struct bookdetail b[SIZE];
19
20     int num,i;
21     printf("Enter the Numbers of Books:");
22     scanf("%d",&num);
23     printf("\n");
24     for(i=0;i<num;i++)
25
26 }
```

```
/tmp/xON0f1ZSg8.o
Enter the Numbers of Books:1
=:Book 1 Detail:=

Enter the Book Name:
vicky
Enter the Author of Book:
vishnu
Enter the Pages of Book:
12
Enter the Price of Book:
50
Book No.1
    Book 1 Name is=vicky
    Book 1 Author is=vishnu
    Book 1 Pages is=12
    Book 1 Price is=50.000
```

```
#include<stdio.h>
struct rectangle {
float width;
float height;
};
int main() {
struct rectangle rect;
float area;
printf("enter the width of the rectangle:");
scanf("%f", &rect.width);
printf("enter the height of the rectangle:");
scanf("%f", &rect.height);
area = rect.width * rect.height;
printf("the area of the rectangle is: %f\n", area);
return 0;
}
```

area of the rectangle is: 0.000000 units  
enter the width of the rectangle:5  
enter the height of the rectangle:7  
the area of the rectangle is: 35.000000



```
D44.C
#include<stdio.h>
union my_data{
int integer;
float floating_point;
};
int main(){
union my_data data;
float input;
printf("Enter a number:");
if (scanf ("%f",&input)==1){
if ((int)input==input){
data.integer=(int)input;
printf ("You entered an integer:%d\n",data.integer);
}
else
{
data.floating_point=input;
printf ("You entered a floating_point number:%f\n",data.floating_point);
}
}
else
```

```
1 #include <stdio.h>
2 union my_union
3 {
4     int integer;
5     float floating_point;
6 };
7 int main()
8 {
9     union my_union u;
10    u.integer = 42;
11    u.floating_point = 3.14;
12    printf("Value of integer field: %d\n", u.integer);
13    printf("Value of floating_point field: %f\n", u.floating_point);
14    return 0;
15 }
16
```

```
Value of integer field: 1078523331
Value of floating_point field: 3.140000
```

```
1 #include <stdio.h>
2 union my_union
3 {
4     int integer;
5     float floating_point;
6 };
7 int main()
8 {
9     union my_union u;
10    u.integer = 42;
11    u.floating_point = 3.14;
12    printf("Value of integer field: %d\n", u.integer);
13    printf("Value of floating_point field: %f\n", u.floating_point);
14    return 0;
15 }
16
```

```
Value of integer field: 1078523331
Value of floating_point field: 3.140000
```