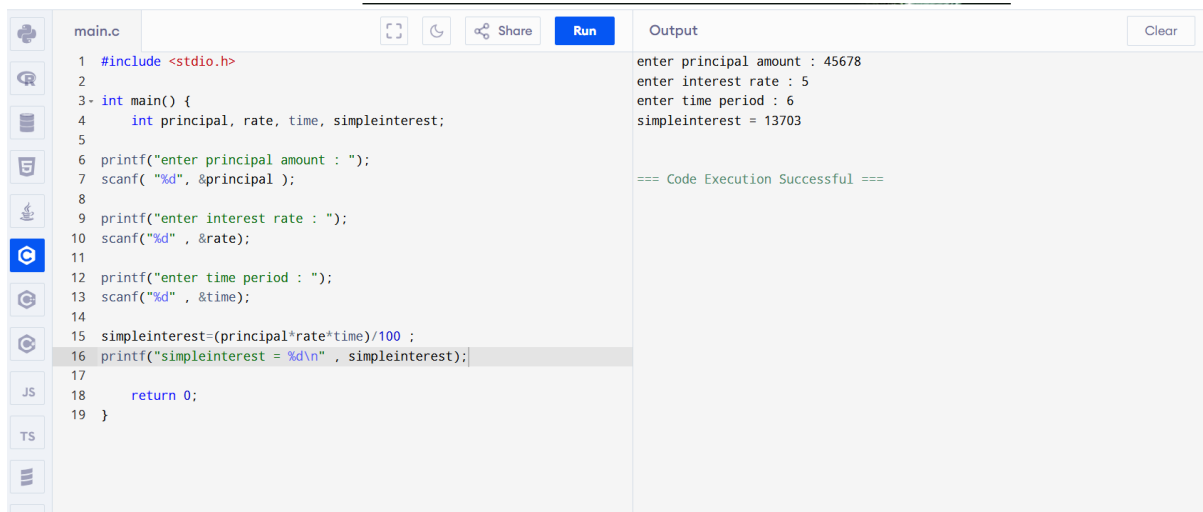


ALL THE QUESTION OF 1ST WEEK IN C LANGUAGE

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Q1 calculate simple interest



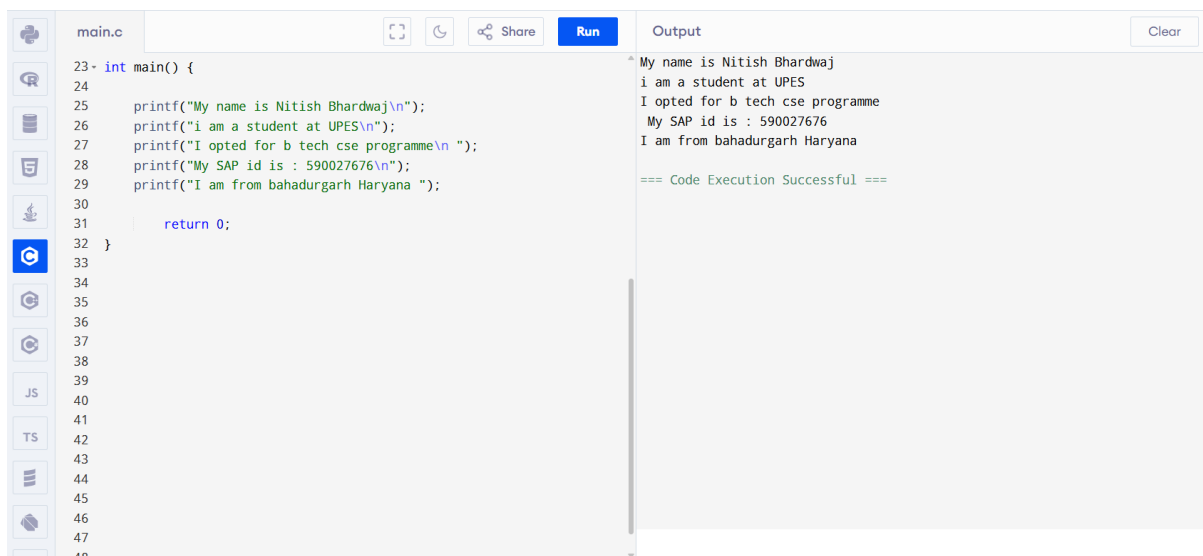
```
main.c
1 #include <stdio.h>
2
3 int main() {
4     int principal, rate, time, simpleinterest;
5
6     printf("enter principal amount : ");
7     scanf("%d", &principal);
8
9     printf("enter interest rate : ");
10    scanf("%d", &rate);
11
12    printf("enter time period : ");
13    scanf("%d", &time);
14
15    simpleinterest=(principal*rate*time)/100;
16    printf("simpleinterest = %d\n", simpleinterest);
17
18    return 0;
19 }
```

Output

```
enter principal amount : 45678
enter interest rate : 5
enter time period : 6
simpleinterest = 13703

=== Code Execution Successful ===
```

Q2 print all your basic details in c



```
main.c
23 int main() {
24
25     printf("My name is Nitish Bhardwaj\n");
26     printf("i am a student at UPES\n");
27     printf("I opted for b tech cse programme\n ");
28     printf("My SAP id is : 590027676\n");
29     printf("I am from bahadurgarh Haryana ");
30
31     return 0;
32 }
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
```

Output

```
My name is Nitish Bhardwaj
i am a student at UPES
I opted for b tech cse programme
My SAP id is : 590027676
I am from bahadurgarh Haryana

=== Code Execution Successful ===
```

Q3 calculate the simple interest for float data type value

```
main.c
13
14 #include <stdio.h>
15
16 int main() {
17     float principal ,rate ,timeperiod ,simpleinterest;
18
19     printf("enter pricipal amount : ");
20     scanf("%f", &principal);
21
22     printf("enter interest rate : ");
23     scanf("%f", &rate);
24
25     printf("enter time period : ");
26     scanf("%f", &timeperiod);
27
28     simpleinterest=(principal*rate*timeperiod)/100 ;
29     printf("simpleinterest = %f\n", simpleinterest);
30
31     return 0 ;
32 }
33
```

Output

```
enter pricipal amount : 4567.0987
enter interest rate : 7.9
enter time period : 8
simpleinterest = 2886.406250

=== Code Execution Successful ===
```

Q4 calculating area of circle

```
main.c
34 #include <stdio.h>
35
36
37 int main() {
38
39     float radius ,area;
40
41     printf("enter the radius of circle : ");
42     scanf("%f", &radius);
43
44     area=(3.14*radius*radius);
45     printf("area = %f", area );
46     return 0;
47 }
48
```

Output

```
enter the radius of circle : 09876.98765
area = 306322304.000000

=== Code Execution Successful ===
```

Q5 write a c programme to find area and perimeter of rectangle

The screenshot shows a C program in a code editor. The code defines variables for length, breadth, area, and perimeter. It prompts the user to enter the length and breadth, then calculates the area and perimeter. The output shows the results for length 345 and breadth 5567.9876.

```
main.c
50 #include <stdio.h>
51
52 int main() {
53
54     float length ,breadth ,area ,perimeter;
55
56     printf("enter the length of rectangle :");
57     scanf("%f" , &length);
58
59     printf("enter the breadth of rectangle :");
60     scanf("%f" , &breadth);
61
62     area=length*breadth;
63     printf("area = %f\n " , area );
64
65     perimeter=2*(length+breadth);
66     printf("perimeter = %f " , perimeter);
67
68     return 0;
69 }
70
71
72
73
74
75
76
77
78
79
80
81
```

Output

```
*enter the length of rectangle :345
enter the breadth of rectangle :5567.9876
area = 1920955.750000
perimeter = 11825.975586

=== Code Execution Successful ===
```

Q6 write a programme to convert Celsius into Fahrenheit .

The screenshot shows a C program in a code editor. The code defines variables for celsius and fahrenheit. It prompts the user to enter the temperature in Celsius, then converts it to Fahrenheit using the formula $F = (C * 9 + 160) / 5$. The output shows the result for -40 Celsius.

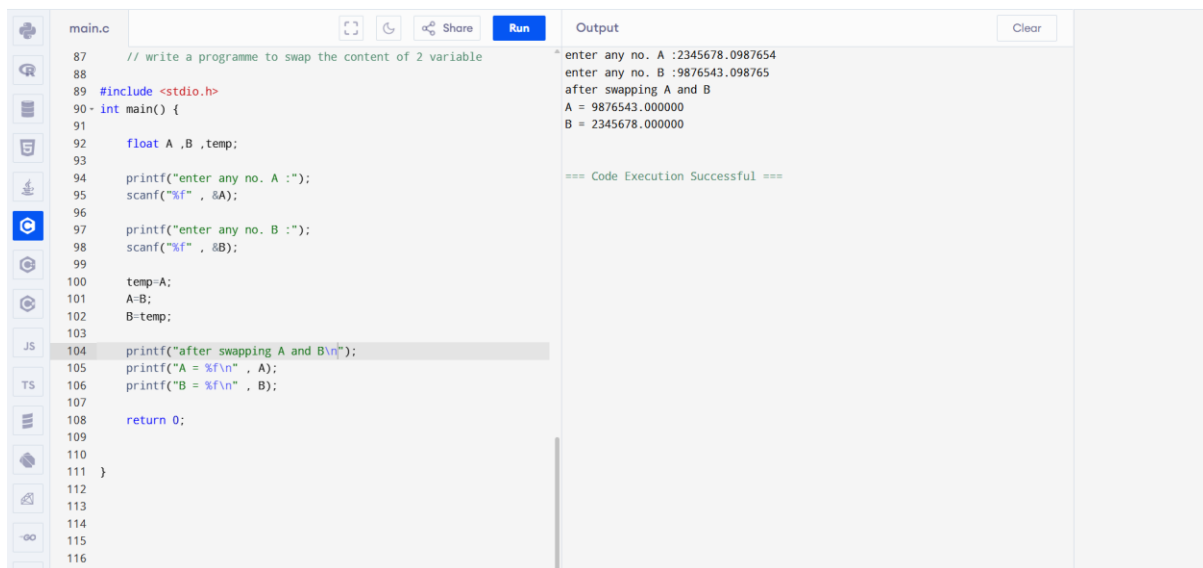
```
main.c
72 #include <stdio.h>
73 int main() {
74
75     float celsius , fahrenheit;
76
77     printf("enter the temperature : ");
78     scanf("%f" , &celsius);
79
80     fahrenheit=(celsius*9 +160)/5 ;
81     printf("fahrenheit = %f " ,fahrenheit);
82
83     return 0;
84 }
85
86
```

Output

```
*enter the temperature : -40
fahrenheit = -40.000000

=== Code Execution Successful ===
```

Q7 Write a programme to swap data of two variable



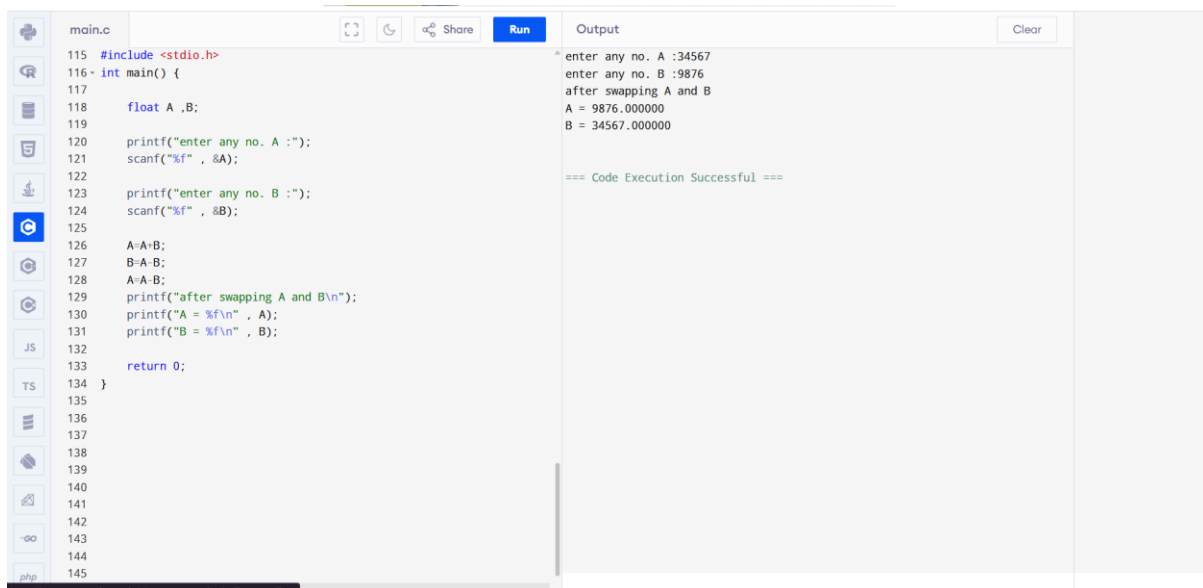
```
main.c
87 // write a programme to swap the content of 2 variable
88
89 #include <stdio.h>
90 int main() {
91
92     float A ,B ,temp;
93
94     printf("enter any no. A :");
95     scanf("%f" , &A);
96
97     printf("enter any no. B :");
98     scanf("%f" , &B);
99
100     temp=A;
101     A=B;
102     B=temp;
103
104     printf("after swapping A and B\n");
105     printf("A = %f\n" , A);
106     printf("B = %f\n" , B);
107
108     return 0;
109
110
111 }
112
113
114
115
116
```

Output

```
enter any no. A :2345678.0987654
enter any no. B :9876543.098765
after swapping A and B
A = 9876543.000000
B = 2345678.000000

=== Code Execution Successful ===
```

Q8 swapping data without 3 variable



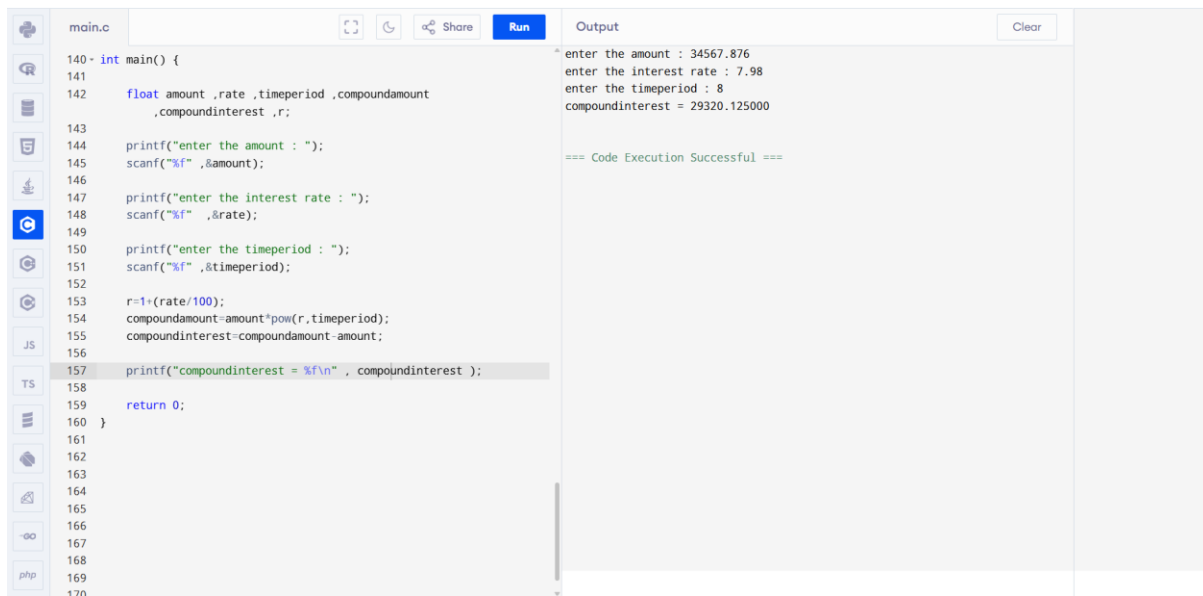
```
main.c
115 #include <stdio.h>
116 int main() {
117
118     float A ,B;
119
120     printf("enter any no. A :");
121     scanf("%f" , &A);
122
123     printf("enter any no. B :");
124     scanf("%f" , &B);
125
126     A=A+B;
127     B=A-B;
128     A=A-B;
129     printf("after swapping A and B\n");
130     printf("A = %f\n" , A);
131     printf("B = %f\n" , B);
132
133     return 0;
134 }
135
136
137
138
139
140
141
142
143
144
145
```

Output

```
enter any no. A :34567
enter any no. B :9876
after swapping A and B
A = 9876.000000
B = 34567.000000

=== Code Execution Successful ===
```

Q9 Write a programme to find compound interest .



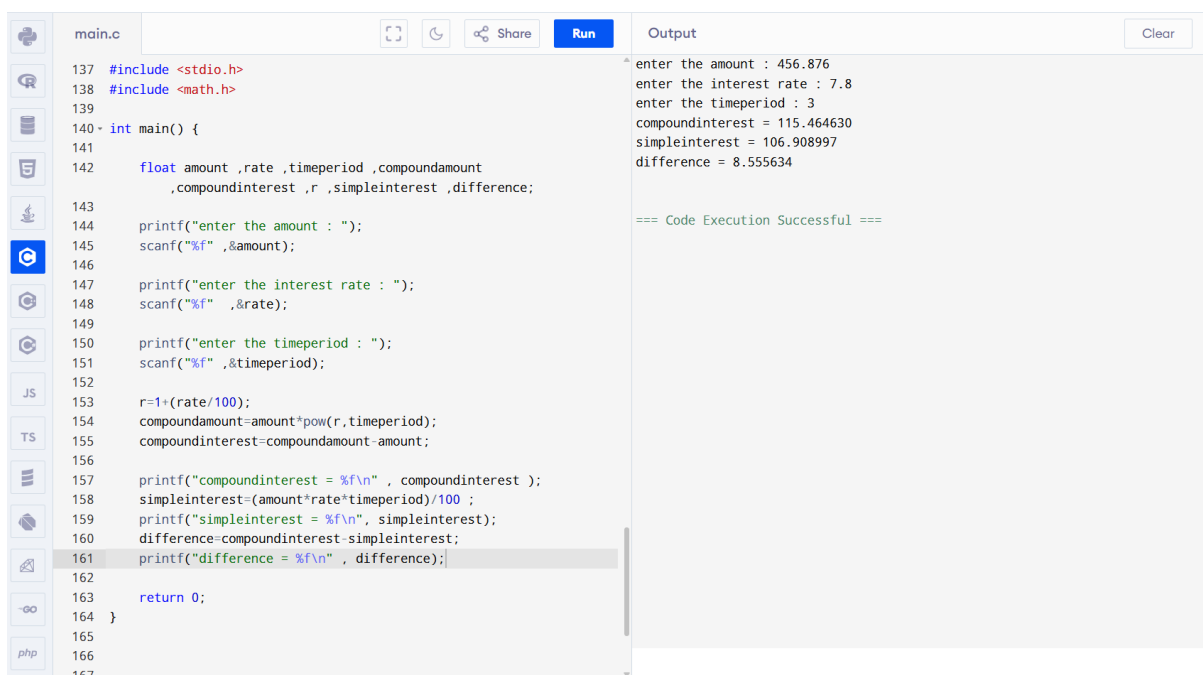
```
main.c
140 int main() {
141
142     float amount ,rate ,timeperiod ,compoundamount
        ,compoundinterest ,r;
143
144     printf("enter the amount : ");
145     scanf("%f" ,&amount);
146
147     printf("enter the interest rate : ");
148     scanf("%f" ,&rate);
149
150     printf("enter the timeperiod : ");
151     scanf("%f" ,&timeperiod);
152
153     r=1+(rate/100);
154     compoundamount=amount*pow(r,timeperiod);
155     compoundinterest=compoundamount-amount;
156
157     printf("compoundinterest = %f\n" , compoundinterest );
158
159     return 0;
160 }
```

Output

```
enter the amount : 34567.876
enter the interest rate : 7.98
enter the timeperiod : 8
compoundinterest = 29320.125000

=== Code Execution Successful ===
```

Q10 Calculating difference of si and ci



```
main.c
137 #include <stdio.h>
138 #include <math.h>
139
140 int main() {
141
142     float amount ,rate ,timeperiod ,compoundamount
        ,compoundinterest ,r ,simpleinterest ,difference;
143
144     printf("enter the amount : ");
145     scanf("%f" ,&amount);
146
147     printf("enter the interest rate : ");
148     scanf("%f" ,&rate);
149
150     printf("enter the timeperiod : ");
151     scanf("%f" ,&timeperiod);
152
153     r=1+(rate/100);
154     compoundamount=amount*pow(r,timeperiod);
155     compoundinterest=compoundamount-amount;
156
157     printf("compoundinterest = %f\n" , compoundinterest );
158     simpleinterest=(amount*rate*timeperiod)/100 ;
159     printf("simpleinterest = %f\n" , simpleinterest);
160     difference=compoundinterest-simpleinterest;
161     printf("difference = %f\n" , difference);
162
163     return 0;
164 }
```

Output

```
enter the amount : 456.876
enter the interest rate : 7.8
enter the timeperiod : 3
compoundinterest = 115.464630
simpleinterest = 106.908997
difference = 8.555634

=== Code Execution Successful ===
```





Q11 Find whether the no. is even or odd without using loops

main.c	Output
<pre>1 #include <stdio.h> 2 3 int main() { 4 int num; 5 6 printf("enter a no. : "); 7 scanf("%d", &num); 8 9 if (num % 2 == 0) 10 printf("yes it is an even no. hurray!!"); 11 else 12 printf("it is an odd no. !!"); 13 14 return 0; 15 }</pre>	<pre>enter a no. : 1234567 it is an odd no. !! === Code Execution Successful ===</pre>

Q15 find the target among two num





main.c	Output
<pre>1 // Online C compiler to run C program online 2 #include <stdio.h> 3 4 int main() { 5 int a, b; 6 printf("enter a number 'a' ;\n"); 7 scanf("%d", &a); 8 printf("enter a number 'b' ;\n"); 9 scanf("%d", &b); 10 if(a > b) 11 { 12 printf("a is larger than b "); 13 } 14 else 15 { 16 printf("b is larger than a"); 17 } 18 return 0; 19 }</pre>	<pre>enter a number 'a' ; 67 enter a number 'b' ; 34 a is larger than b === Code Execution Successful ===</pre>

Q14 check whether the number is even or odd using only if command

```
main.c    Share 
```

```
1 // Online C compiler to run C program online
2 #include <stdio.h>
3
4 int main() {
5     int num;
6     printf("enter a nnumber ;\n");
7     scanf("%d" , &num);
8     if(num%2==0)
9     {
10         printf("the number is even ");
11     }
12     if(num%2!=0)
13     {
14         printf("the number is odd ");
15     }
16     return 0;
17 }
```


Q16 check the the number is even or odd using else command

```
main.c     Share 
```

```
1 // Online C compiler to run C program online
2 #include <stdio.h>
3
4 int main() {
5     int num;
6     printf("enter a nnumber ;\n");
7     scanf("%d" , &num);
8     if(num%2==0)
9     {
10         printf("the number is even ");
11     }
12     else
13     {
14         printf("the number is odd ");
15     }
16     return 0;
17 }
```