

C-88 ⇒ Functions in C ⇒ Part 5
Functions with No Argument
No Return Type

Classifications of Functions:-

- ① No argument without return type
- ② No argument with return type
- ③ With Argument No Return type
- ④ With Argument with Return type

① Functions with No argument without return type

```
void fun(void);
void fun()
{
    -----
    -----
    -----
}
```

// no return type

```
void main()
{
    fun();
}
```

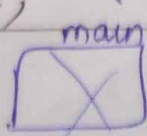
Example:-

```
void sum(void);
void main()
{
    sum();
}
```

```
void sum()
{
```

```
    int a=5, b=7, sum=0;
    sum = a+b;
    printf("sum = %d", sum);
}
```

next thing
will vanish



→ it this will vanish

Program 1 :-

```
void sum(void);
```

```
void main()
```

```
{
```

```
    sum();
```

```
}
```

```
void sum()
```

```
{
```

```
    int a=5, b=7, sum=0;
```

```
    sum = a+b;
```

```
    printf("sum = %d\n", sum);
```

```
}
```

O/P:-

sum = 12

Program 2:- To write a program with addition, subtraction, multiplication and division function in a single program (assignment → Refer code in soft document)

PROBLEM 1:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 1 - No Argument and No Return Type **/
4  void sum(void);
5  void main()
6  {
7      sum();
8  }
9  void sum()
10 {
11     int a=5,b=7,sum=0;
12     sum=a+b;
13     printf("Sum=%d\n",sum);
14 }
15
```

Logs & others

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File	Line	Message
D:\1. C NO...	5	=== Build: Debug in 1_NoArugumentNoReturnType (compiler: GNU GCC C... warning: return type of 'main' is not 'int' [-Wmain] === Build finished: 0 error(s), 1 warning(s) (0 minute(s), 2 secon... === Run: Debug in 1_NoArugumentNoReturnType (compiler: GNU GCC Com...

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Sum=12

Process returned 7 (0x7) execution time : 0.035 s
Press any key to continue.

PROBLEM 2:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 1 - No Argument and No Return Type **/
4  void sum(void);
5  void main()
6  {
7      sum(5,7);
8  }
9  void sum()
10 {
11     int a=5,b=7,sum=0;
12     sum=a+b;
13     printf("Sum=%d\n",sum);
14 }
15
```

Logs & others

File	Line	Message
D:\1. C NO...	5	=== Build: Debug in 2_NoArugumentNoReturnType (compiler: GNU GCC C... warning: return type of 'main' is not 'int' [-Wmain]
D:\1. C NO...		In function 'main':
D:\1. C NO...	7	error: too many arguments to function 'sum'
D:\1. C NO...	4	note: declared here
		=== Build failed: 1 error(s), 1 warning(s) (0 minute(s), 0 second(...

PROBLEM 3:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 3 - No Argument and No Return Type **/
4  //void sum(void);
5  void main()
6  {
7      sum();
8  }
9  void sum()
10 {
11     int a=5,b=7,sum=0;
12     sum=a+b;
13     printf("Sum=%d\n",sum);
14 }
15
```

Logs & others

File	Line	Message
=== Build: Debug in 3_NoArgumentNoReturnType (compiler: GNU GCC Co...		
D:\1. C NO...	5	warning: return type of 'main' is not 'int' [-Wmain]
D:\1. C NO...		In function 'main':
D:\1. C NO...	7	warning: implicit declaration of function 'sum' [-Wimplicit-functi...
D:\1. C NO...	9	warning: conflicting types for 'sum'
D:\1. C NO...	7	note: previous implicit declaration of 'sum' was here
=== Build finished: 0 error(s), 3 warning(s) (0 minute(s), 0 secon...		

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```
Sum=12

Process returned 7 (0x7)   execution time : 0.037 s
Press any key to continue.
```

PROBLEM 4:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 4 - No Argument and No Return Type **/
4  //void sum(void);
5  void main()
6  {
7      sum();
8  }
9  float sum()
10 {
11     int a=5,b=7,sum=0;
12     sum=a+b;
13     printf("Sum=%d\n",sum);
14 }
15
```

Logs & others

File	Line	Message
=== Build: Debug in 4_NoArgumentNoReturnType (compiler: GNU GCC Co...		
D:\1. C NO...	5	warning: return type of 'main' is not 'int' [-Wmain]
D:\1. C NO...		In function 'main':
D:\1. C NO...	7	warning: implicit declaration of function 'sum' [-Wimplicit-functi...
D:\1. C NO...	9	error: conflicting types for 'sum'
D:\1. C NO...	7	note: previous implicit declaration of 'sum' was here
D:\1. C NO...		In function 'sum':
D:\1. C NO...	14	warning: control reaches end of non-void function [-Wreturn-type]

PROBLEM 5:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 5 - No Argument and No Return Type **/
4  void sum(); //without void gives warning but arguments 5&7 are not passed
5  void main()
6  {
7      sum(5, 7);
8  }
9  void sum()
10 {
11     int a=5, b=7, sum=0;
12     sum=a+b;
13     printf("Sum=%d\n", sum);
14 }
15
```

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Sum=12

Process returned 7 (0x7) execution time : 0.047 s

Press any key to continue.

PROBLEM 6:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 6 - No Argument and No Return Type **/
4  void sum(void);
5  main() //default return type will be considered as 'int'
6  {
7      sum();
8      return 0; //optional, can also leave it blank if no return vale
9               //if no return value then declare void in main()
10 }
11 void sum()
12 {
13     int a=5,b=7,sum=0;
14     sum=a+b;
15     printf("Sum=%d\n",sum);
16 }
17
```

Logs & others

Code::Blocks Search results Cccc Build log Build messages CppCheck/Vera++ CppCheck/Vera++

File	Line	Message
D:\1. C NO...	5	=== Build: Debug in 6_NoArgumentNoReturnType (compiler: GNU GCC Co... warning: return type defaults to 'int' [-Wimplicit-int] === Build finished: 0 error(s), 1 warning(s) (0 minute(s), 0 secon...

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Sum=12

Process returned 0 (0x0) execution time : 0.051 s

Press any key to continue.

PROBLEM 7:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 7 - No Argument and No Return Type **/
4  void sum(); //no argument so it matches with function definition
5  int main()
6  {
7      sum(5,7); //function call will go and check function declaration
8  }
9  void sum(void) //function declaration has no argument and here void hence matches
10 {
11     int a=5,b=7,sum=0;
12     sum=a+b;
13     printf("Sum=%d\n",sum);
14 }
15
```

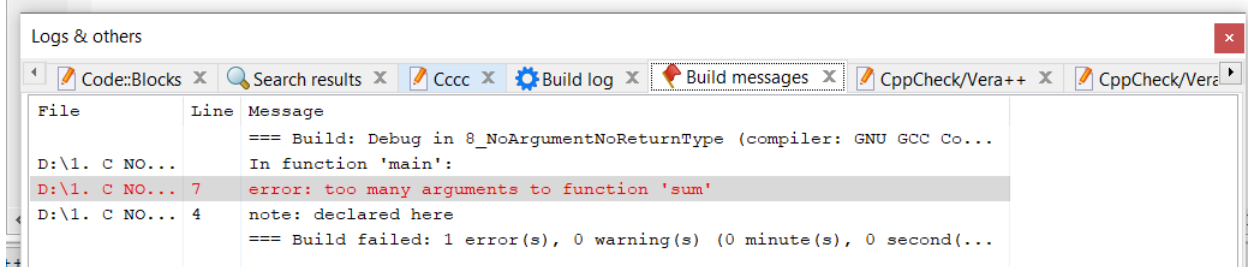
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Sum=12

Process returned 0 (0x0) execution time : 0.093 s
Press any key to continue.

PROBLEM 8:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 8 - No Argument and No Return Type **/
4  void sum(void); //void nothing so it matches with function definition
5  int main()
6  {
7      sum(5,7); //function call will go and check function declaration
8  }
9  void sum(void) //function definition matches with declaration
10 {
11     int a=5,b=7,sum=0;
12     sum=a+b;
13     printf("Sum=%d\n",sum);
14 }
15
```



PROBLEM 9:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 9 - No Argument and No Return Type **/
4  void sum(void); //void nothing so it matches with function definition
5  int main()
6  {
7      sum(); //function call will go and check function declaration
8  }
9  void sum(void) //function definition matches with declaration
10 {
11     int a=5,b=7,sum=0;
12     sum=a+b;
13     printf("Sum=%d\n",sum);
14 }
15
```

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Sum=12

Process returned 0 (0x0) execution time : 0.062 s
Press any key to continue.

PROBLEM 10:

```
1  #include <stdio.h>
2  #include <stdlib.h>
3  /** 10 - No Argument and No Return Type **/
4  void addition(void);
5  void subtraction(void);
6  void multiplication(void);
7  void division(void);
8  int main()
9  {
10     addition();
11     subtraction();
12     multiplication();
13     division();
14 }
15 void addition()
16 {
17     int a=10,b=5,sum=0;
18     sum=a+b;
19     printf("Addition=%d\n",sum);
20 }
```

```
21 void subtraction()
22 {
23     int a=10,b=5,sub=0;
24     sub=a-b;
25     printf("Subtraction=%d\n",sub);
26 }
27 void multiplication()
28 {
29     int a=10,b=5,mul=0;
30     mul=a*b;
31     printf("Multiplication=%d\n",mul);
32 }
33 void division()
34 {
35     int a=10,b=5,div=0;
36     div=a/b;
37     printf("Division=%d\n",div);
38 }
39 |
```

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```
Addition=15
Subtraction=5
Multiplication=50
Division=2
```

```
Process returned 0 (0x0)   execution time : 0.047 s
Press any key to continue.
```