

OBJECTIVE : To get acquainted with Dev-C++
You will learn how to:
1. Code a given program using the editor.
2. **Compile and run** your program.
3. Use Data Types, arithmetic expressions.

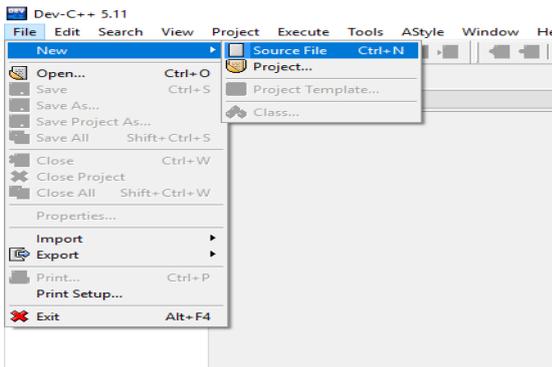
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USING DEV-C++

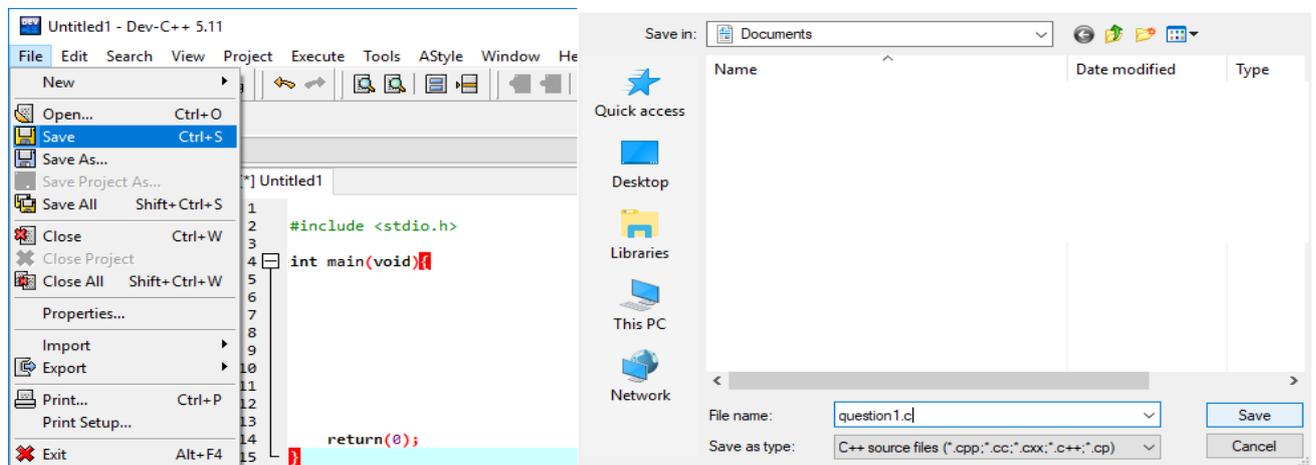
- Open Dev-C++ and create a new source file. (Ctrl +N is the shortcut)



- Type the following code first.

```
1
2 #include <stdio.h>
3
4 int main(void){
5
6
7
8
9
10
11
12
13
14     return(0);
15 }
```

- Save your file by pressing Ctrl+S or like the picture below, then named your file as “question1.c” and save your file.



- Run your code with F11 or “Compile and Run” Button.

QUESTIONS:

1. Write a program that calculates the following operation:

$$((k * p) + (r * t) + 7) / z$$

k = 2
p = 3
r = 7
t = 2.2
z = 1.4

The variable names and their values are given above. Write the output statement to see the result on the screen.

After you write the program, please compile and build it. Then do Step Over debugging as you learnt. Use watch window to see your variables and their values.

Example Run:

```
Result is 20.285714
```

File Name: question1.c

2. Calculate the sum, difference, and product of two given numbers. (Use integer numbers)

Example Run:

```
Enter first number : 9  
Enter second number : 5  
The sum of the numbers : 14  
The difference of the numbers : 4  
The product of the numbers : 45
```

File Name: question2.c

3. Calculate the average of 3 double numbers.

Example Run:

```
Enter three double numbers: 12.1 17.3 21.8  
Average is 17.07
```

File Name: question3.c

4.

Write a C program to calculate the body mass index from values given by the user, as shown in the example run below.

Hint: Body mass index is calculated as follows: $BMI = \frac{Weight}{Height^2}$

Example Run:

```
Please enter weight for calculation:  
56.25  
Please enter height as M.CM:  
1.57  
The BMI for the person with 1.57 in height and 56.25 in weight is: 22.82
```

File Name: question4.c

ADDITIONAL QUESTION:

Write a C program calculating the volume of a sphere and of a cube. Take the radius of the sphere from the user, as well as one side of the cube. Define PI as a constant to its 6 digits, which is 3.14159.

Area of a sphere: $V = \frac{4}{3} \pi r^3$

Area of a cube: $V = a^3$

Example Run:

```
Enter the radius of the sphere: 10  
Enter one side length of the cube: 5  
The volume of the sphere is: 3141.59  
The volume of the cube is: 125.00
```

File Name: question5.c