

BSc (Hons) in Information Technology Year 1

Tutorial 2

IT1010 – Introduction to Programming

Semester 1, 2021

Exercise 1: Practice how to use variables in printf statement

What does the following print? Assume x = 2 and y = 3.

- i. printf("*\n**\n***\n***\n***\n"); ii. printf("%d", x + x);
- iii. printf("x = ");
- iv. printf("x=%d", x);
- v. printf(" 0 d = 0 d", x+y, y+x);
- vi. /* printf("%d", x+y); */
- vii. printf("\n");
- viii. float z = 45.567; printf("value is %.2f", z);

Exercise 2: Practice number formatting

- a) What is the output of the following statements?
 - i. printf("%.2f\n", 3.446);
 - ii. printf("%.1f\n", 3.446);
- b) Write statements to,
 - i. Print the value 123.4567 with 2 digits precision.
 - ii. Print the value 3.14159 with three digits to the right of the decimal point.
 - iii. Print the value 333.546372 in a field width of 15 characters with precisions of 1,2,3,4 and 5.

Exercise 3: Practice scanf statement in a C program

- i. Write a C program to input two marks from the keyboard and display the marks.
- ii. Modify the above program to calculate the total of the marks and display the total.
- iii. Next, add a statement to calculate the average mark.
- iv. Display the average mark.



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Exercise 4: Practice using structures in C programs

Write a C program to do the following;

a) Create a structure called **item** to store the following details of items in a shop.

itemNo integer price double quantity integer

b) Create 2 variables from the **item** data type and store the following data entered through the keyboard. Print the details on the screen in the following format.

Item No	Price	Quantity
1	10.00	12
2	15.00	4